



TOWN OF MILTON  
PLANNING AND DEVELOPMENT  
BUILDING PERMIT:17-5010

BUILDING: REVIEWED  
SCOTT SHERRIFFS  
PLANS EXAMINER

APR 20, 2017  
DATE

Neither the issuance of a permit nor carrying out of inspections by the Town of Milton relieves 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

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MAR 29, 2017  
17-5010  
BUILDING DIVISION

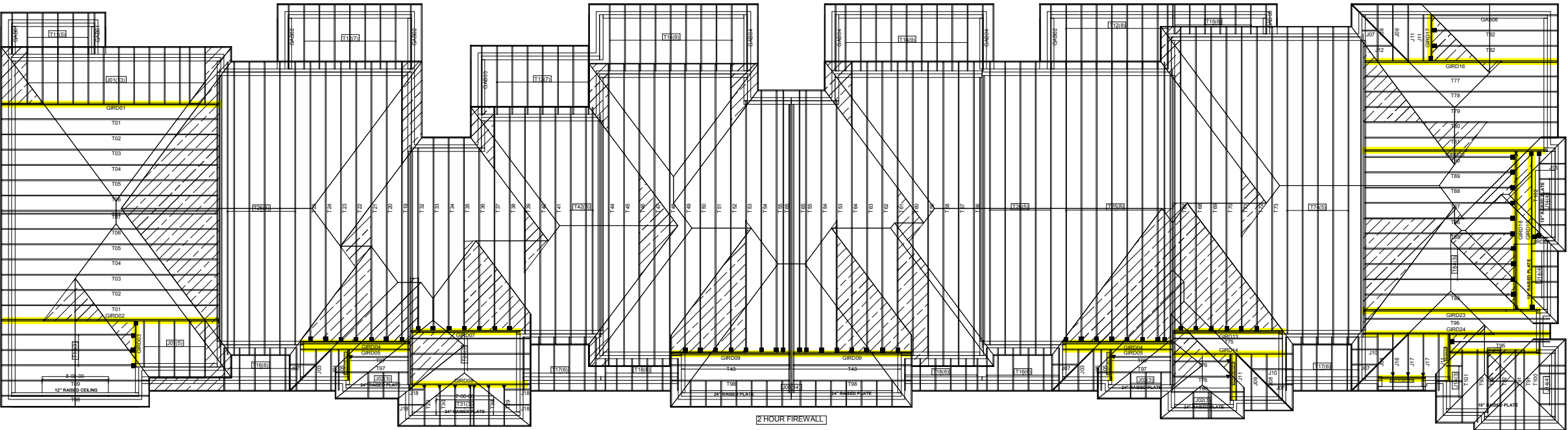


TOP OF ALL PORCH BEAMS  
AT 8' 7 1/4 A.F.F.

UNDERSIDE OF SOFFIT  
FOR PORCHES AT  
8' 6" A.F.F.

GARAGE WALL PLATES  
AT 9' 1 2/16" A.F.F.

PARTY WALLS TO BE  
FRAMED ON SITE A.P.P.

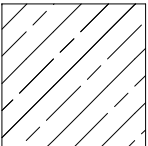


HANGER LEGEND:

- ▼ LUS24

● HGUS26
- LJS26DS

× HGUS26-2



CONVENTIONAL  
FRAMING BY OTHERS

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

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'.

Model: **BLOCK 330**  
Customer: GREENPARK  
Project: LECCO RIDGE  
Location: MILTON  
Date: 3/10/2017    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**

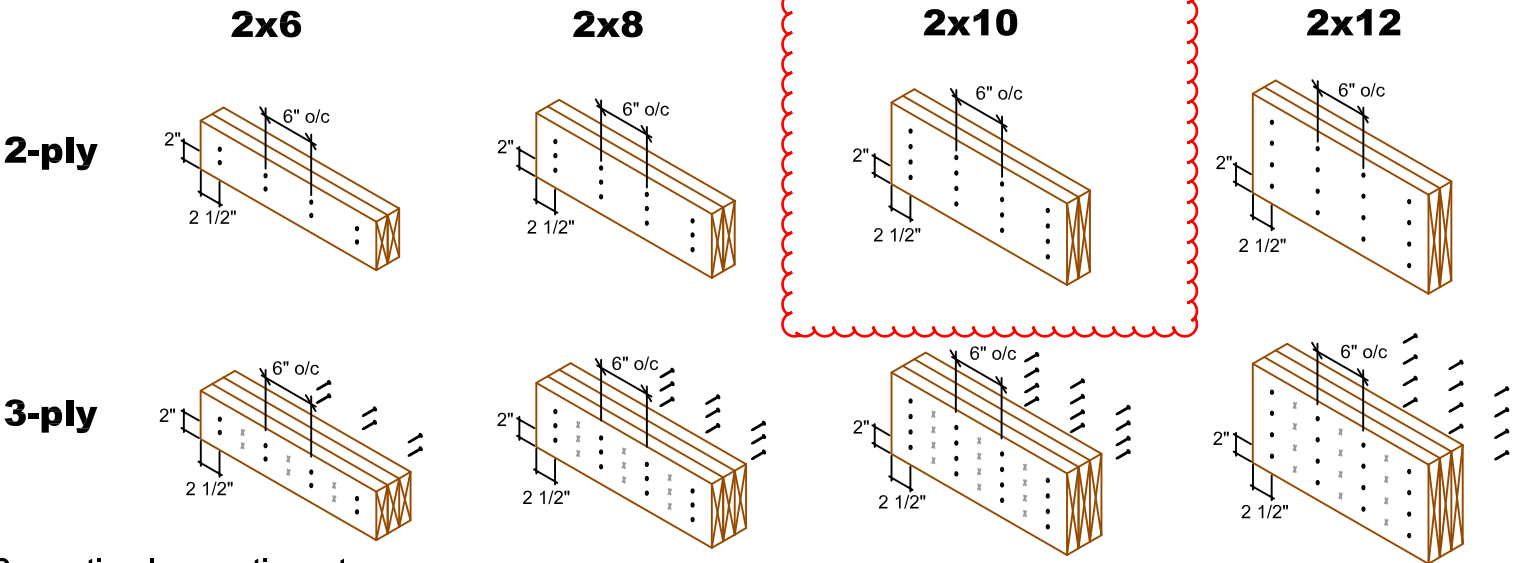
- Geometry of the truss and dimensions indicated on the drawing are identical to those of the installed truss.



01/29/2013

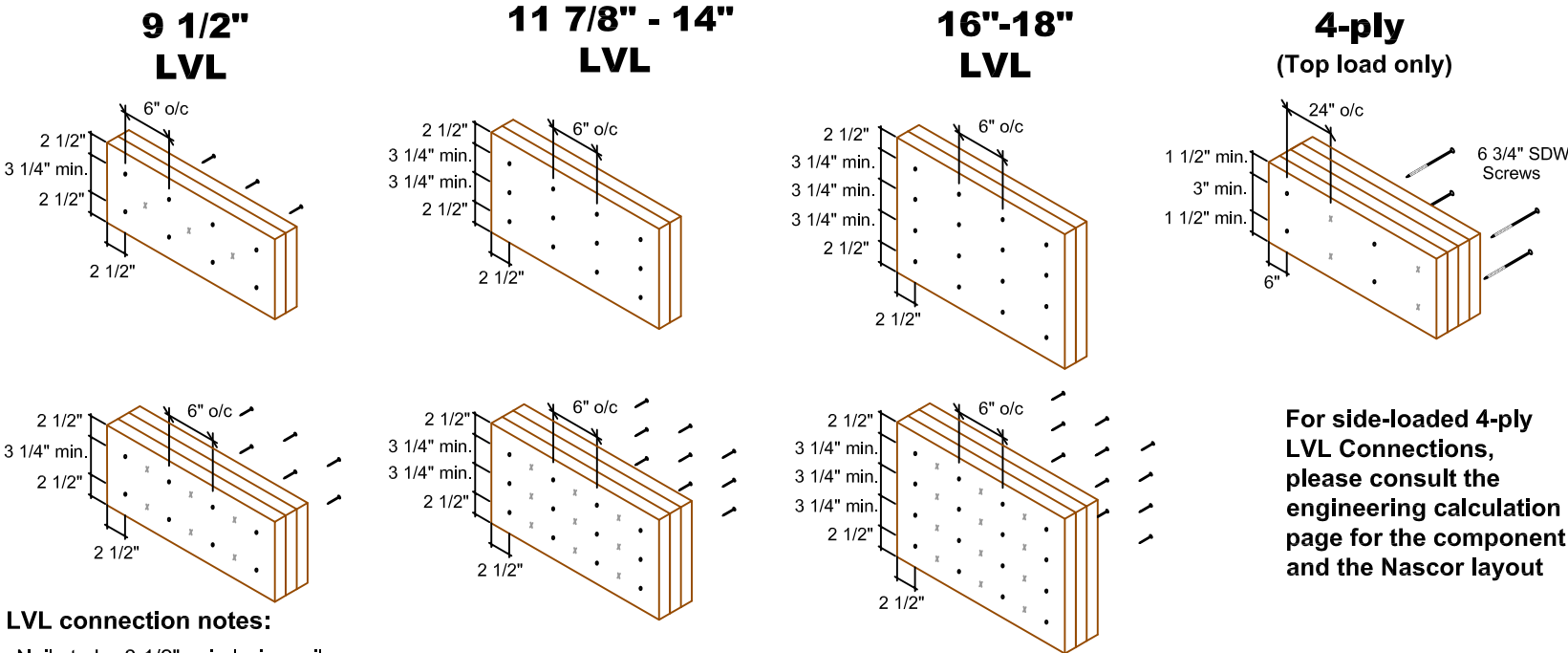
# MULTIPLE MEMBER CONNECTIONS

## Conventional Connections (for uniform distributed loads)



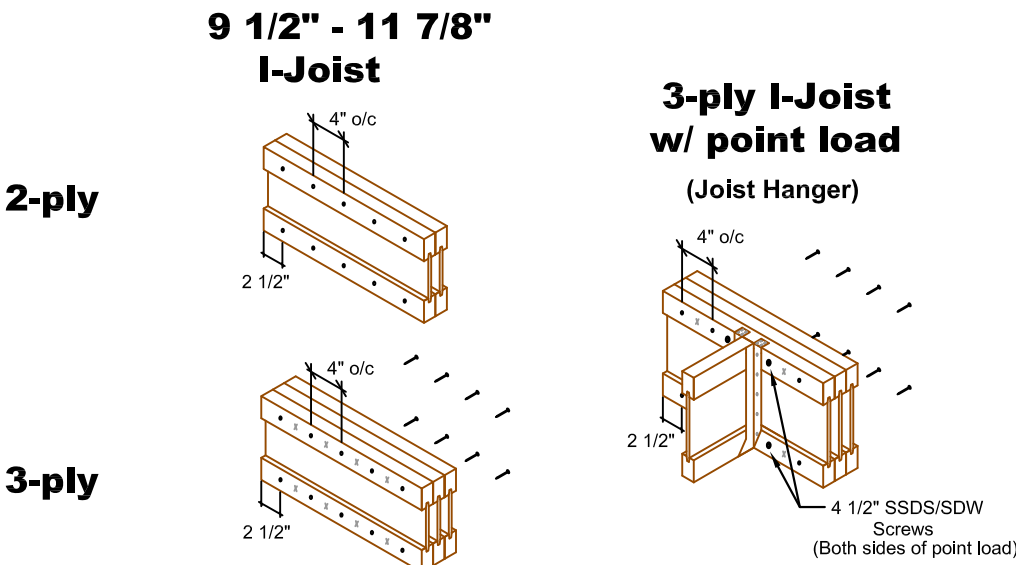
- Conventional connection notes:**
- Nails to be 3" 10d spiral wire nails.
  - Nails to be located a minimum of 2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
  - Number of rows and spacing as per details shown, unless noted otherwise.
  - "X" represents nail driven from the opposite side.

## LVL Connections (for uniform distributed loads)



- LVL connection notes:**
- Nails to be 3 1/2" spiral wire nails.
  - Nails to be located a minimum of 2 1/2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
  - Minimum 3 1/4" spacing between rows.
  - Number of rows and spacing as per details shown, unless noted otherwise.
  - "X" represents nail or screw driven from the opposite side.

## Vertical I-Joist Connections (for uniform distributed loads)



- Vertical I-Joist connection notes:**
- Nails to be 3" spiral wire nails.
  - Nails to be located at centre of top and bottom flanges. Start all nails a minimum of 2 1/2" in from ends.
  - Number of rows and spacing as per details shown, unless noted otherwise.
  - "X" represents nail driven from the opposite side.

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MULTI -PLY  
CONNECTION  
DETAILS

Date: November 30, 2016

Scale: NTS



KOTT  
3228 Moodie Drive  
Ottawa, ON  
K2H 7V1  
Ph: 613-838-2775  
Fx: 613-838-4751

CS Beam 4.11.26.1  
kmBeamEngine 4.11.26.1  
Materials Database 1516**Member Data B1****Description:**

Member Type: Beam

Application: Roof

Top Lateral Bracing: Continuous

Slope: 0.00 / 12

Bottom Lateral Bracing: Continuous

Moisture Condition: Dry

Building Code: OBC-2012

Standard Load:

Deflection Criteria: L/360 live, L/240 total

0.720" max. LL

Snow Load: 30 PLF

Deck Connection: Nailed

Member Weight: 5.0 PLF

Dead Load: 15 PLF

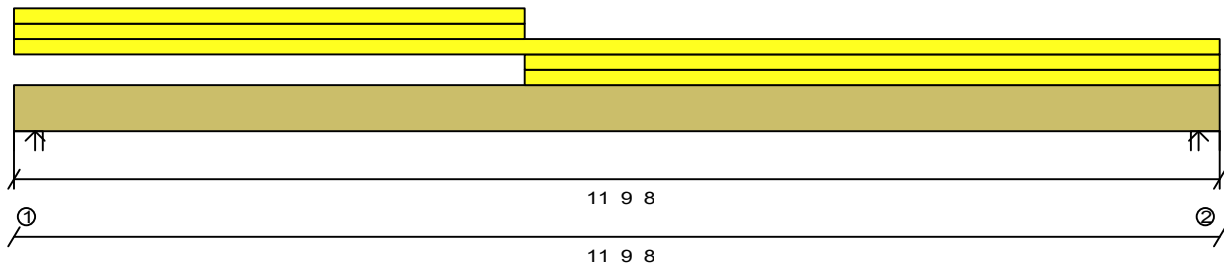
Filename: Beam2

Building Type: Residential

Importance Category: Normal (Part 9)

**Other Loads**

| Type<br>(Description)    | Side | Begin    | End       | Trib.<br>Width | Other<br>Start | End | Dead<br>Start | End | Category |
|--------------------------|------|----------|-----------|----------------|----------------|-----|---------------|-----|----------|
| Additional Uniform (PLF) | Top  | 0' 0.00" | 5' 0.00"  |                | 0              |     | 41            |     | Live     |
| Additional Uniform (PLF) | Top  | 0' 0.00" | 5' 0.00"  |                | 95             |     | 0             |     | Snow     |
| Additional Uniform (PLF) | Top  | 0' 0.00" | 11' 9.50" |                | 0              |     | 10            |     | Live     |
| Additional Uniform (PLF) | Top  | 5' 0.00" | 11' 9.50" |                | 0              |     | 50            |     | Live     |
| Additional Uniform (PLF) | Top  | 5' 0.00" | 11' 9.50" |                | 139            |     | 0             |     | Snow     |

**Bearings and Factored Reactions**

|   | Location   | Type | Material | Input<br>Length | Min<br>Required | Gravity<br>Reaction | Gravit<br>Uplift |
|---|------------|------|----------|-----------------|-----------------|---------------------|------------------|
| 1 | 0' 0.000"  | Wall | Steel    | 3.500"          | 1.500"          | 1715#               | --               |
| 2 | 11' 9.500" | Wall | Steel    | 3.500"          | 1.500"          | 1929#               | --               |

**Maximum Unfactored Load Case Reactions**

Used for applying point loads (or line loads) to carrying members

|   | Snow | Dead |
|---|------|------|
| 1 | 793# | 420# |
| 2 | 915# | 445# |

Design spans  
11' 4.250"**Product: S-P-F No1/No2 2x10 2 ply****PASSES DESIGN CHECKS**Design assumes continuous lateral bracing along the top chord.  
Design assumes continuous lateral bracing along the bottom chord.**Limit States Design**

|                 | Actual  | Limit   | Capacity | Location | Loading                    |
|-----------------|---------|---------|----------|----------|----------------------------|
| Positive Moment | 5255.#  | 6042.#  | 86%      | 5.9'     | Total Load 1.25D+1.00*1.5S |
| Shear           | 1657.#  | 2656.#  | 62%      | 11.01'   | Total Load 1.25D+1.00*1.5S |
| Max. Reaction   | 1929.#  | 6457.#  | 29%      | 11.79'   | Total Load 1.25D+1.00*1.5S |
| TL Deflection   | 0.3093" | 0.5677" | L/440    | 5.9'     | Total Load D+S             |
| LL Deflection   | 0.2058" | 0.3785" | L/661    | 5.9'     | Total Load S               |

(Actual is factored load effects, Limit is design resistance)

Bearing length from point load of top loads beams assumed to be 3.50"

Control: Positive Moment

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

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IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.

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\*\*Passing is defined as when the member, floor joist, beam or girder, shown on this drawing meets applicable design criteria for Loads, Loading Conditions, and Spans listed on this sheet. The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation according to the manufacturer's specifications.



CS Beam 4.11.26.1  
kmBeamEngine 4.11.26.1  
Materials Database 1516**Member Data B2****Description:**

Member Type: Beam

Application: Roof

Top Lateral Bracing: Continuous

Slope: 0.00 / 12

Bottom Lateral Bracing: Continuous

Moisture Condition: Dry

Building Code: OBC-2012

Standard Load:

Deflection Criteria: L/360 live, L/240 total

0.720" max. LL

Snow Load: 30 PLF

Deck Connection: Nailed

Member Weight: 5.0 PLF

Dead Load: 15 PLF

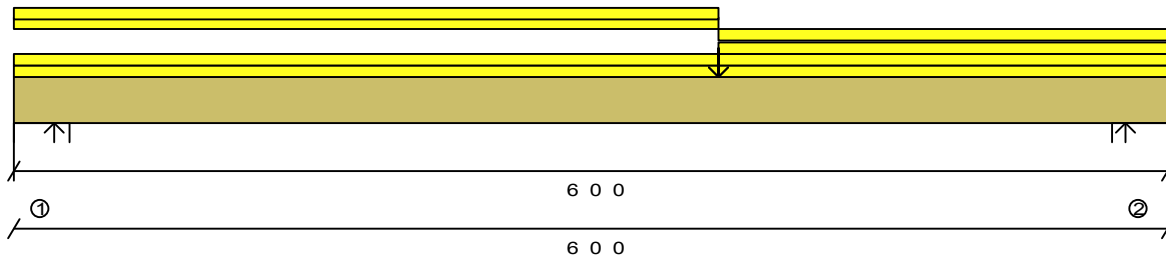
Filename: Beam3

Building Type: Residential

Importance Category: Normal (Part 9)

**Other Loads**

| Type (Description)       | Side | Begin    | End      | Trib. Width | Other Start | End | Dead Start | End | Category |
|--------------------------|------|----------|----------|-------------|-------------|-----|------------|-----|----------|
| Point (LBS)              | Top  | 3' 8.00" |          |             | 0           |     | 420        |     | Live     |
| Point (LBS)              | Top  | 3' 8.00" |          |             | 793         |     | 0          |     | Snow     |
| Additional Uniform (PLF) | Top  | 0' 0.00" | 3' 8.00" |             | 0           |     | 16         |     | Live     |
| Additional Uniform (PLF) | Top  | 0' 0.00" | 3' 8.00" |             | 61          |     | 0          |     | Snow     |
| Additional Uniform (PLF) | Top  | 3' 8.00" | 6' 0.00" |             | 0           |     | 59         |     | Live     |
| Additional Uniform (PLF) | Top  | 3' 8.00" | 6' 0.00" |             | 139         |     | 0          |     | Snow     |
| Additional Uniform (PLF) | Top  | 0' 0.00" | 6' 0.00" |             | 0           |     | 10         |     | Live     |
| Additional Uniform (PLF) | Top  | 0' 0.00" | 6' 0.00" |             | 23          |     | 0          |     | Live     |

**Bearings and Factored Reactions**

|   | Location  | Type | Material | Input Length | Min Required | Gravity Reaction | Gravity Uplift |
|---|-----------|------|----------|--------------|--------------|------------------|----------------|
| 1 | 0' 0.000" | Wall | Steel    | 3.500"       | 1.500"       | 1292#            | --             |
| 2 | 6' 0.000" | Wall | Steel    | 3.500"       | 1.500"       | 1927#            | --             |

**Maximum Unfactored Load Case Reactions**

Used for applying point loads (or line loads) to carrying members

|   | Live | Snow | Dead |
|---|------|------|------|
| 1 | 65#  | 586# | 305# |
| 2 | 65#  | 878# | 462# |

Design spans

5' 6.750"

**Product: S-P-F No1/No2 2x10 2 ply****PASSES DESIGN CHECKS**

Design assumes continuous lateral bracing along the top chord.

Design assumes continuous lateral bracing along the bottom chord.

**Limit States Design**

|                 | Actual  | Limit   | Capacity | Location | Loading                         |
|-----------------|---------|---------|----------|----------|---------------------------------|
| Positive Moment | 3234.#  | 6042.#  | 53%      | 3.67'    | Total Load 1.25D+1.00*1.5S+0.5L |
| Shear           | 1637.#  | 2656.#  | 61%      | 5.22'    | Total Load 1.25D+1.00*1.5S+0.5L |
| Max. Reaction   | 1927.#  | 6457.#  | 29%      | 6'       | Total Load 1.25D+1.00*1.5S+0.5L |
| TL Deflection   | 0.0395" | 0.2781" | L/999+   | 3.28'    | Total Load D+S+0.5L             |
| LL Deflection   | 0.0262" | 0.1854" | L/999+   | 3.28'    | Total Load S+0.5L               |

(Actual is factored load effects, Limit is design resistance)

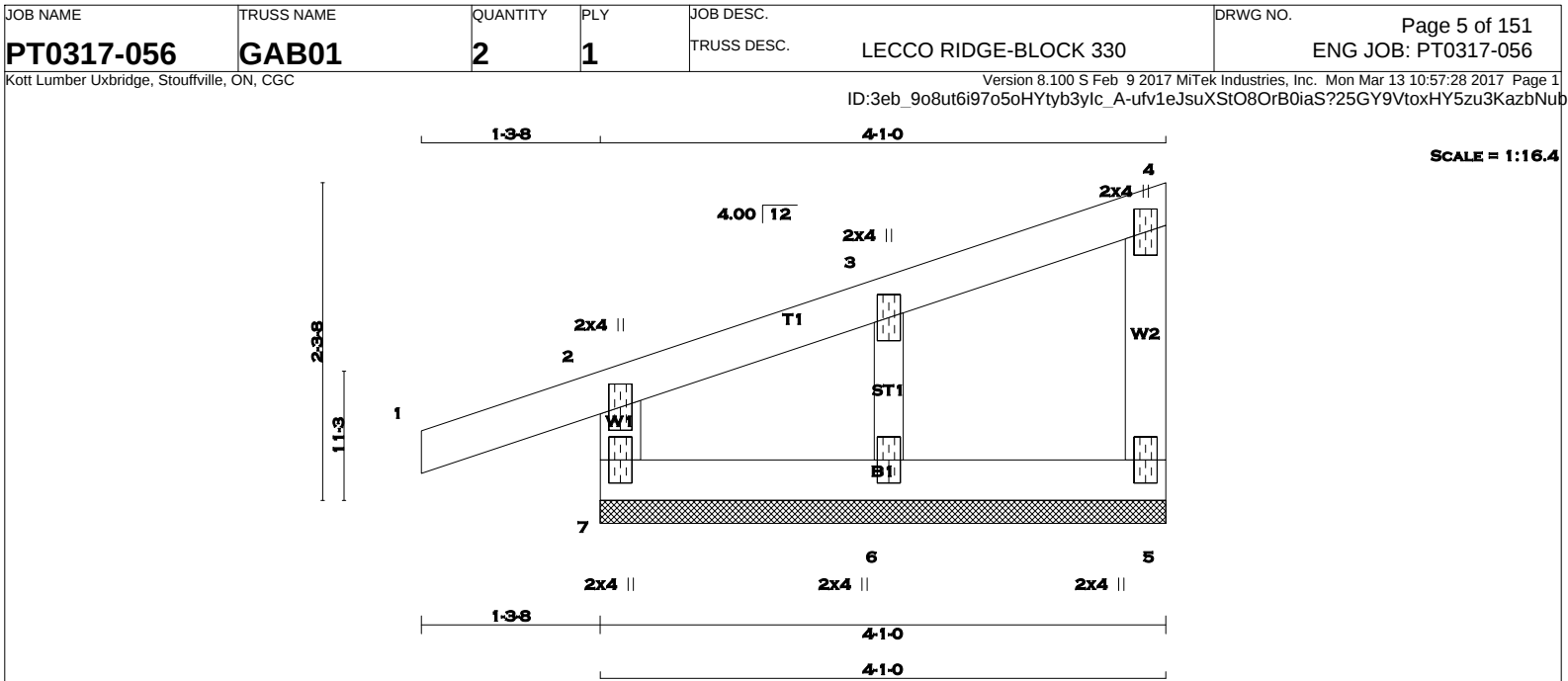
Bearing length from point load of top loads beams assumed to be 3.50"

Control: Shear

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

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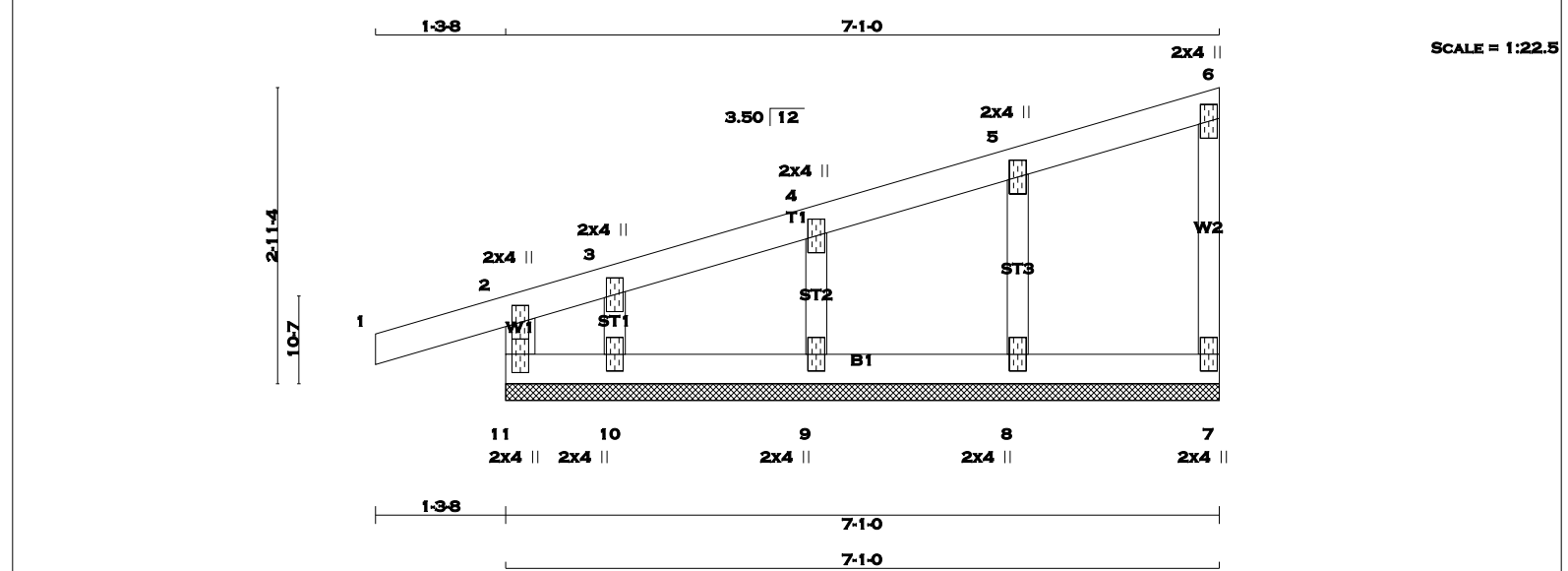
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |     |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-----|--|
| TOTAL WEIGHT = 2 X 15 = 29 lb                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  | [M] |  |
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS      SIZE                      LUMBER                      DESCR.                      SPF<br>7 - 2            2x4                      DRY                      No.2                      SPF<br>1 - 4            2x4                      DRY                      No.2                      SPF<br>5 - 4            2x4                      DRY                      No.2                      SPF<br>7 - 5            2x4                      DRY                      No.2                      SPF<br><br>ALL WEBS    2x3                      DRY                      No.2                      SPF<br>ALL GABLE WEBS                      2x3                      DRY                      No.2                      SPF<br>DRY: SEASONED LUMBER.<br><br>GABLE STUDS SPACED AT    2'-0-0 OC. |  |  |  |  |  | <b>DIMENSIONS, SUPPORTS    AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br><br>THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.<br><br>THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.<br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.<br><br><b>LOADING</b><br>TOTAL LOAD CASES: (3)<br><br>C H O R D S                      W E B S<br>MAX. FACTORED                      FACTORED                      MAX. FACTORED<br>MEMB.                      FORCE                      VERT. LOAD                      LC1                      MAX                      MAX.                      MEMB.                      FORCE                      MAX<br> |  |  |  |     |  |



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TOTAL WEIGHT = 3 X 23 = 70 lb [M]

| LUMBER                          |        |      |        |        |
|---------------------------------|--------|------|--------|--------|
| N. L. G. A. RULES               | CHORDS | SIZE | LUMBER | DESCR. |
| 11 - 2                          | 2x4    | DRY  | No.2   | SPF    |
| 1 - 6                           | 2x4    | DRY  | No.2   | SPF    |
| 7 - 6                           | 2x3    | DRY  | No.2   | SPF    |
| 11 - 7                          | 2x4    | DRY  | No.2   | SPF    |
| ALL WEBS 2x3 DRY No.2 SPF       |        |      |        |        |
| ALL GABLE WEBS 2x3 DRY No.2 SPF |        |      |        |        |
| GABLE STUDS SPACED AT 2-0-0 OC. |        |      |        |        |

| PLATES (table is in inches)                                                      |        |        |     |     |      |      |
|----------------------------------------------------------------------------------|--------|--------|-----|-----|------|------|
| JT                                                                               | TYPE   | PLATES | W   | LEN | Y    | X    |
| 2                                                                                | TMV+p  | MT20   | 2.0 | 4.0 |      |      |
| 3, 4, 5                                                                          |        |        |     |     |      |      |
| 3                                                                                | TMW+w  | MT20   | 2.0 | 4.0 |      |      |
| 6                                                                                | TMV+p  | MT20   | 2.0 | 4.0 |      |      |
| 7                                                                                | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 8, 9, 10                                                                         |        |        |     |     |      |      |
| 8                                                                                | BMW1+w | MT20   | 2.0 | 4.0 |      |      |
| 11                                                                               | 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. |        |        |     |     |      |      |

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

**BEARINGS**

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

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

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

| LOADING               |                           |                           |                  |               |       |                           |                       |  |  |
|-----------------------|---------------------------|---------------------------|------------------|---------------|-------|---------------------------|-----------------------|--|--|
| TOTAL LOAD CASES: (3) |                           |                           |                  |               |       |                           |                       |  |  |
| CHORDS                |                           |                           |                  |               | WEBS  |                           |                       |  |  |
| MEMB.                 | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) | UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED MAX CSI (LC) |  |  |
| FR-TO                 |                           | FROM TO                   |                  |               | FR-TO |                           |                       |  |  |
| 11-2                  | -189 / 0                  | 0.0                       | 0.0 0.03 (1)     | 7.81          | 8-5   | -168 / 0                  | 0.03 (1)              |  |  |
| 1-2                   | 0 / 14                    | -77.3                     | -77.3 0.10 (1)   | 10.00         | 9-4   | -161 / 0                  | 0.02 (1)              |  |  |
| 2-3                   | -26 / 0                   | -77.3                     | -77.3 0.07 (1)   | 6.25          | 10-3  | -67 / 0                   | 0.01 (1)              |  |  |
| 3-4                   | -9 / 0                    | -77.3                     | -77.3 0.04 (1)   | 10.00         |       |                           |                       |  |  |
| 4-5                   | -7 / 0                    | -77.3                     | -77.3 0.04 (1)   | 10.00         |       |                           |                       |  |  |
| 5-6                   | -7 / 0                    | -77.3                     | -77.3 0.04 (1)   | 10.00         |       |                           |                       |  |  |
| 7-6                   | -66 / 0                   | 0.0                       | 0.0 0.02 (1)     | 7.81          |       |                           |                       |  |  |
| 11-10                 | 0 / 14                    | -17.5                     | -17.5 0.03 (1)   | 10.00         |       |                           |                       |  |  |
| 10-9                  | 0 / 11                    | -17.5                     | -17.5 0.01 (3)   | 10.00         |       |                           |                       |  |  |
| 9-8                   | 0 / 7                     | -17.5                     | -17.5 0.02 (3)   | 10.00         |       |                           |                       |  |  |
| 8-7                   | 0 / 3                     | -17.5                     | -17.5 0.02 (3)   | 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**

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 (1-2:1) , BC=0.03 (10-11:1) , WB=0.03 (5-8:1) , SSI=0.08 (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) | SHEAR | SECTION |
|-------|-----------|-------|---------|
|       | (PSI)     | (PLI) | (PLI)   |
|       | MAX       | MIN   | MAX     |
| MT20  | 618       | 354   | 1667    |
|       | 822       | 2284  | 1656    |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

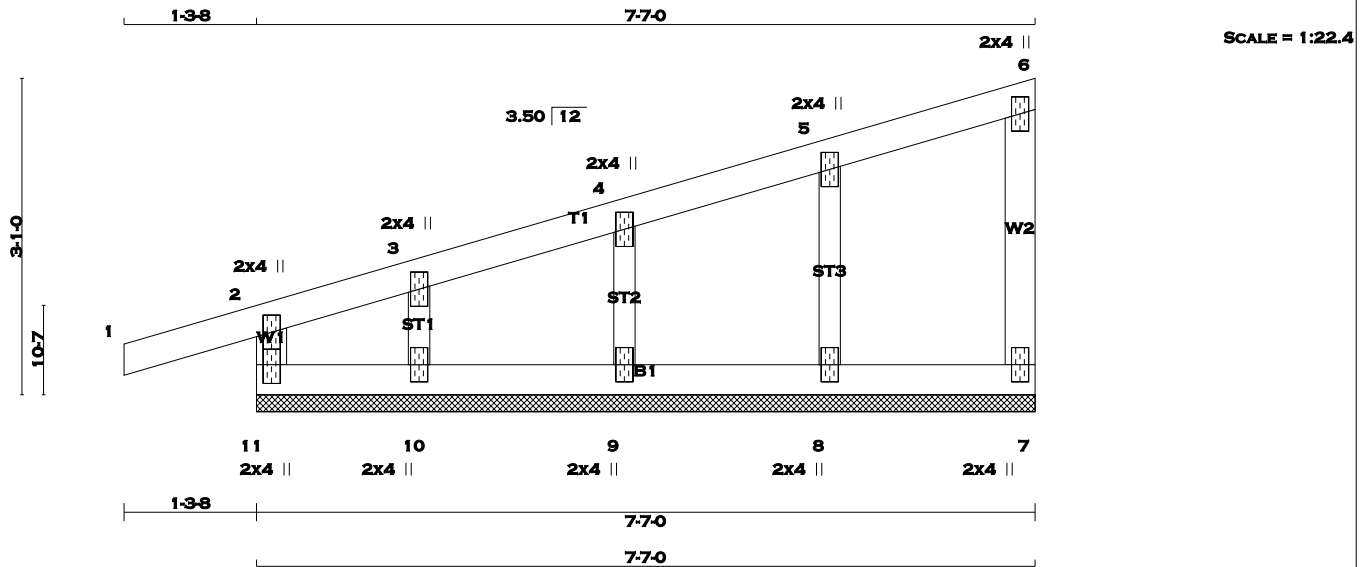
JSI GRIP= 0.10 (2) (INPUT = 0.90 )  
JSI METAL= 0.04 (2) (INPUT = 1.00 )



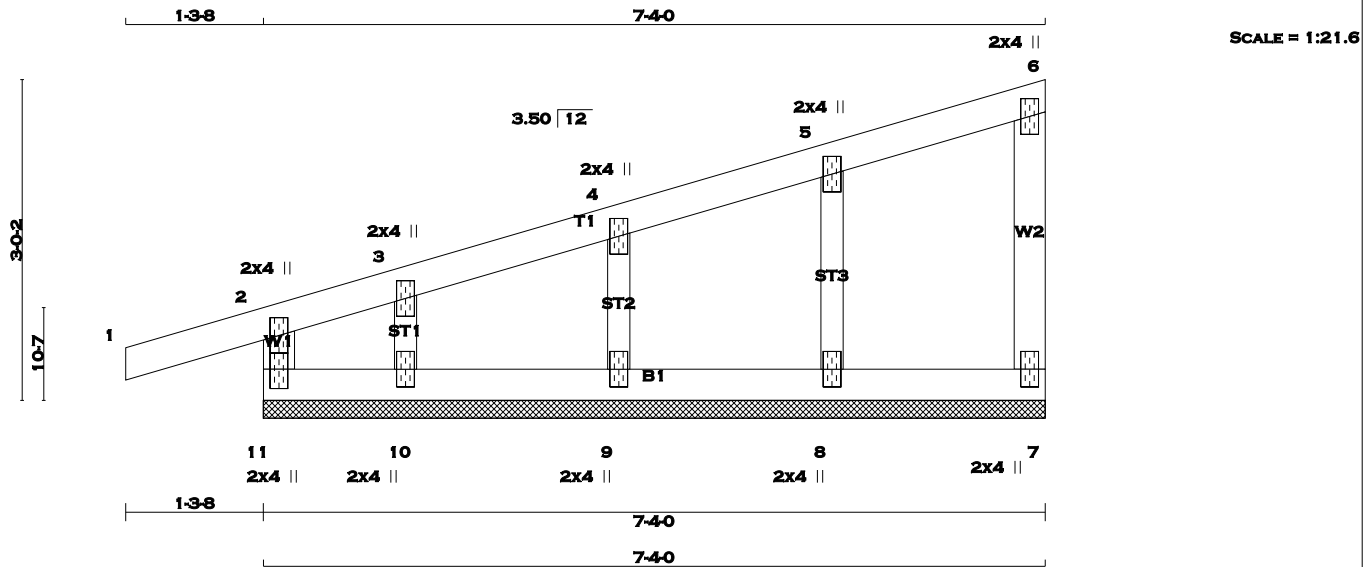
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READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.





| LUMBER                                                                           |        |        |     |      |      | DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER |             |         |             |          |                     |                                                                                            |          |          |             | DESIGN CRITERIA                                                                                    |          |     |             |  |          |  |
|----------------------------------------------------------------------------------|--------|--------|-----|------|------|-----------------------------------------------------------------------------------------------|-------------|---------|-------------|----------|---------------------|--------------------------------------------------------------------------------------------|----------|----------|-------------|----------------------------------------------------------------------------------------------------|----------|-----|-------------|--|----------|--|
| N. L. G. A. RULES                                                                |        | CHORDS |     | SIZE |      | LUMBER                                                                                        |             | DESCR.  |             | BEARINGS |                     |                                                                                            |          |          |             | SPECIFIED LOADS:                                                                                   |          |     |             |  |          |  |
| 11 -                                                                             | 2      | 2x4    | DRY | No.2 | SPF  | THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.                                                  |             |         |             |          |                     | TOP                                                                                        | CH.      | LL       | =           | 23.3                                                                                               | PSF      |     |             |  |          |  |
| 1 -                                                                              | 6      | 2x4    | DRY | No.2 | SPF  | THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.                                          |             |         |             |          |                     |                                                                                            |          | DL       | =           | 3.0                                                                                                | PSF      |     |             |  |          |  |
| 7 -                                                                              | 6      | 2x4    | DRY | No.2 | SPF  |                                                                                               |             |         |             |          |                     |                                                                                            |          | LL       | =           | 0.0                                                                                                | PSF      |     |             |  |          |  |
| 11 -                                                                             | 7      | 2x4    | DRY | No.2 | SPF  | BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)                                         |             |         |             |          |                     |                                                                                            |          | DL       | =           | 7.0                                                                                                | PSF      |     |             |  |          |  |
|                                                                                  |        |        |     |      |      |                                                                                               |             |         |             |          |                     |                                                                                            |          | TOTAL    | LOAD        | =                                                                                                  | 33.3     | PSF |             |  |          |  |
| ALL WEBS 2x3 DRY No.2 SPF                                                        |        |        |     |      |      | BRACING                                                                                       |             |         |             |          |                     | SPACING = 24.0 IN. C/C                                                                     |          |          |             |                                                                                                    |          |     |             |  |          |  |
| ALL GABLE WEBS 2x3 DRY No.2 SPF                                                  |        |        |     |      |      | TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.                                    |             |         |             |          |                     | THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010 |          |          |             |                                                                                                    |          |     |             |  |          |  |
| DRY: SEASONED LUMBER.                                                            |        |        |     |      |      | MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.              |             |         |             |          |                     | THIS DESIGN COMPLIES WITH:                                                                 |          |          |             |                                                                                                    |          |     |             |  |          |  |
| GABLE STUDS SPACED AT 2-0-0 OC.                                                  |        |        |     |      |      | ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.                    |             |         |             |          |                     | - PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014                                                |          |          |             |                                                                                                    |          |     |             |  |          |  |
|                                                                                  |        |        |     |      |      | LOADING                                                                                       |             |         |             |          |                     | - CSA 086-09                                                                               |          |          |             |                                                                                                    |          |     |             |  |          |  |
|                                                                                  |        |        |     |      |      | TOTAL LOAD CASES: (3)                                                                         |             |         |             |          |                     | - TPIC 2011                                                                                |          |          |             |                                                                                                    |          |     |             |  |          |  |
| PLATES (table is in inches)                                                      |        |        |     |      |      |                                                                                               |             |         |             |          |                     |                                                                                            |          |          |             | DESIGN ASSUMPTIONS                                                                                 |          |     |             |  |          |  |
| JT                                                                               | TYPE   | PLATES | W   | LEN  | Y    | X                                                                                             | C H O R D S |         |             |          |                     |                                                                                            | W E B S  |          |             |                                                                                                    |          |     |             |  |          |  |
| 2                                                                                | TMV+p  | MT20   | 2.0 | 4.0  |      |                                                                                               | MEMB.       |         | FORCE (LBS) |          | FACTORED VERT. LOAD |                                                                                            | LC1 MAX  |          | MAX. UNBRAC |                                                                                                    | MEMB.    |     | FORCE (LBS) |  | MAX      |  |
| 3, 4, 5                                                                          |        |        |     |      |      |                                                                                               |             |         |             |          | (PLF)               |                                                                                            | CSI (LC) |          | LENGTH      |                                                                                                    |          |     |             |  | FR-TO    |  |
| 8                                                                                | BMW+w  | MT20   | 2.0 | 4.0  |      |                                                                                               | FR-TO       |         | 11- 2       |          | -195 / 0            |                                                                                            | 0.0      |          | 0.0         |                                                                                                    | 0.03 (1) |     | 7.81        |  | 8- 5     |  |
| 6                                                                                | TMV+p  | MT20   | 2.0 | 4.0  |      |                                                                                               | 1- 2        |         | 0 / 14      |          | -77.3               |                                                                                            | -77.3    |          | 0.10 (1)    |                                                                                                    | 10.00    |     | 9- 4        |  | -161 / 0 |  |
| 7                                                                                | BMV1+p | MT20   | 2.0 | 4.0  |      |                                                                                               | 2- 3        |         | -25 / 0     |          | -77.3               |                                                                                            | -77.3    |          | 0.07 (1)    |                                                                                                    | 6.25     |     | 10- 3       |  | -100 / 0 |  |
| 8, 9, 10                                                                         |        |        |     |      |      |                                                                                               | 3- 4        |         | -10 / 0     |          | -77.3               |                                                                                            | -77.3    |          | 0.04 (1)    |                                                                                                    | 6.25     |     |             |  |          |  |
| 8                                                                                | BMW1+w | MT20   | 2.0 | 4.0  |      |                                                                                               | 4- 5        |         | -8 / 0      |          | -77.3               |                                                                                            | -77.3    |          | 0.04 (1)    |                                                                                                    | 10.00    |     |             |  |          |  |
| 11                                                                               | BMV1+p | MT20   | 2.0 | 4.0  | 2.25 | 1.00                                                                                          | 5- 6        |         | -8 / 0      |          | -77.3               |                                                                                            | -77.3    |          | 0.04 (1)    |                                                                                                    | 10.00    |     |             |  |          |  |
|                                                                                  |        |        |     |      |      | 7- 6                                                                                          |             | -69 / 0 |             | 0.0      |                     | 0.0                                                                                        |          | 0.01 (1) |             | 7.81                                                                                               |          |     |             |  |          |  |
|                                                                                  |        |        |     |      |      | 11-10                                                                                         |             | 0 / 16  |             | -17.5    |                     | -17.5                                                                                      |          | 0.03 (1) |             | 10.00                                                                                              |          |     |             |  |          |  |
|                                                                                  |        |        |     |      |      | 10- 9                                                                                         |             | 0 / 12  |             | -17.5    |                     | -17.5                                                                                      |          | 0.01 (3) |             | 10.00                                                                                              |          |     |             |  |          |  |
|                                                                                  |        |        |     |      |      | 9- 8                                                                                          |             | 0 / 8   |             | -17.5    |                     | -17.5                                                                                      |          | 0.02 (3) |             | 10.00                                                                                              |          |     |             |  |          |  |
|                                                                                  |        |        |     |      |      | 8- 7                                                                                          |             | 0 / 5   |             | -17.5    |                     | -17.5                                                                                      |          | 0.02 (3) |             | 10.00                                                                                              |          |     |             |  |          |  |
| A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED. |        |        |     |      |      |                                                                                               |             |         |             |          |                     |                                                                                            |          |          |             | 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) SHEAR SECTION                                                                      |          |     |             |  |          |  |
|                                                                                  |        |        |     |      |      |                                                                                               |             |         |             |          |                     |                                                                                            |          |          |             | (PSI) (PLI) (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= 0.11 (2) (INPUT = 0.90 )                                                                 |          |     |             |  |          |  |
|                                                                                  |        |        |     |      |      |                                                                                               |             |         |             |          |                     |                                                                                            |          |          |             | JSI METAL= 0.04 (2) (INPUT = 1.00 )                                                                |          |     |             |  |          |  |



TOTAL WEIGHT = 3 X 25 = 75 lb [M]

| LUMBER                          |        |      |        |  | DESCR. |
|---------------------------------|--------|------|--------|--|--------|
| N. L. G. A. RULES               | CHORDS | SIZE | LUMBER |  |        |
| 11 - 2                          | 2x4    | DRY  | No.2   |  | SPF    |
| 1 - 6                           | 2x4    | DRY  | No.2   |  | SPF    |
| 7 - 6                           | 2x4    | DRY  | No.2   |  | SPF    |
| 11 - 7                          | 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    |
| 2                           | TMV+p  | MT20   | 2.0 | 4.0 |      |      |
| 3, 4, 5                     |        |        |     |     |      |      |
| 3                           | TMW+w  | MT20   | 2.0 | 4.0 |      |      |
| 6                           | TMV+p  | MT20   | 2.0 | 4.0 |      |      |
| 7                           | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 8, 9, 10                    |        |        |     |     |      |      |
| 8                           | BMW1+w | MT20   | 2.0 | 4.0 |      |      |
| 11                          | 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.

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

**BEARINGS**  
 THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.  
 THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.  
 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)  
**BRACING**  
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.  
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.  
 ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

#### LOADING

TOTAL LOAD CASES: (3)

| CHORDS |                           |                           |                           | WEBS  |                           |                           |          |
|--------|---------------------------|---------------------------|---------------------------|-------|---------------------------|---------------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC) |          |
| FR-TO  |                           | FROM TO                   |                           | FR-TO |                           |                           |          |
| 11-2   | -192 / 0                  | 0.0                       | 0.0 0.03 (1)              | 7.81  | 8-5                       | -164 / 0                  | 0.03 (1) |
| 1-2    | 0 / 14                    | -77.3                     | -77.3 0.10 (1)            | 10.00 | 9-4                       | -162 / 0                  | 0.02 (1) |
| 2-3    | -27 / 0                   | -77.3                     | -77.3 0.07 (1)            | 6.25  | 10-3                      | -84 / 0                   | 0.01 (1) |
| 3-4    | -11 / 0                   | -77.3                     | -77.3 0.04 (1)            | 6.25  |                           |                           |          |
| 4-5    | -9 / 0                    | -77.3                     | -77.3 0.04 (1)            | 10.00 |                           |                           |          |
| 5-6    | -8 / 0                    | -77.3                     | -77.3 0.04 (1)            | 10.00 |                           |                           |          |
| 7-6    | -69 / 0                   | 0.0                       | 0.0 0.02 (1)              | 7.81  |                           |                           |          |
| 11-10  | 0 / 16                    | -17.5                     | -17.5 0.03 (1)            | 10.00 |                           |                           |          |
| 10-9   | 0 / 13                    | -17.5                     | -17.5 0.01 (3)            | 10.00 |                           |                           |          |
| 9-8    | 0 / 8                     | -17.5                     | -17.5 0.02 (3)            | 10.00 |                           |                           |          |
| 8-7    | 0 / 5                     | -17.5                     | -17.5 0.02 (3)            | 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 (1-2:1), BC=0.03 (10-11:1), WB=0.03 (5-8:1), SSI=0.08 (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) SHEAR SECTION  
 (PSI) (PLI) (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.

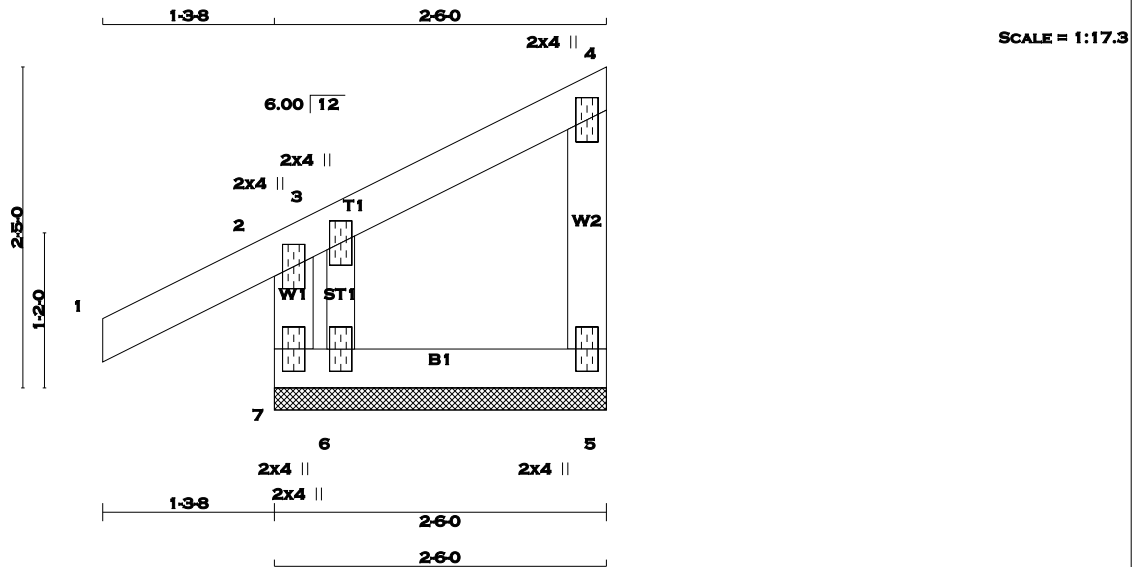
JSI GRIP= 0.10 (2) (INPUT = 0.90)  
 JSI METAL= 0.04 (2) (INPUT = 1.00)



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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.





LUMBER

| N. L. G. A. RULES               | CHORDS | SIZE | LUMBER | DESCR. |
|---------------------------------|--------|------|--------|--------|
| 7 - 2                           | 2x4    | DRY  | No.2   | SPF    |
| 1 - 4                           | 2x4    | DRY  | No.2   | SPF    |
| 5 - 4                           | 2x4    | DRY  | No.2   | SPF    |
| 7 - 5                           | 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 |
|----|--------|--------|-----|-----|---|---|
| 2  | TMV+p  | MT20   | 2.0 | 4.0 |   |   |
| 3  | TMV+w  | MT20   | 2.0 | 4.0 |   |   |
| 4  | TMV+p  | MT20   | 2.0 | 4.0 |   |   |
| 5  | BMV1+p | MT20   | 2.0 | 4.0 |   |   |
| 6  | BMV1+w | MT20   | 2.0 | 4.0 |   |   |
| 7  | BMV1+p | MT20   | 2.0 | 4.0 |   |   |

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

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

PROVIDE ANCHORAGE AT BEARING JOINT 6 FOR 150 LBS. FACTORED UPLIFT BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S).

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

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

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

LOADING

TOTAL LOAD CASES: (4)

| C H O R D S |                           |                           |                  | W E B S            |       |                           |              |
|-------------|---------------------------|---------------------------|------------------|--------------------|-------|---------------------------|--------------|
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
| FR-TO       |                           | FROM TO                   |                  |                    | FR-TO |                           |              |
| 7-2         | -218 / 0                  | 0.0                       | 0.0              | 0.02 (4)           | 7.81  | 6-3                       | -16 / 103    |
| 1-2         | 0 / 23                    | -77.3                     | -77.3            | 0.10 (1)           | 10.00 |                           |              |
| 2-3         | -48 / 0                   | -77.3                     | -77.3            | 0.09 (1)           | 6.25  |                           |              |
| 3-4         | -12 / 0                   | -77.3                     | -77.3            | 0.03 (1)           | 6.25  |                           |              |
| 5-4         | -70 / 0                   | 0.0                       | 0.0              | 0.02 (1)           | 7.81  |                           |              |
| 7-6         | -7 / 9                    | -17.5                     | -17.5            | 0.02 (1)           | 10.00 |                           |              |
| 6-5         | -1 / 8                    | -17.5                     | -17.5            | 0.01 (3)           | 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

CSI: TC=0.10 (1-2:1) , BC=0.02 (6-7:1) , WB=0.02 (3-6:4) , SSI=0.08 (2-3:4)

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) | SHEAR | SECTION            |
|-------|-----------|-------|--------------------|
|       | (PSI)     | (PLI) | (PLI)              |
|       | 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= 0.13 (2) (INPUT = 0.90 )

JSI METAL= 0.05 (2) (INPUT = 1.00 )



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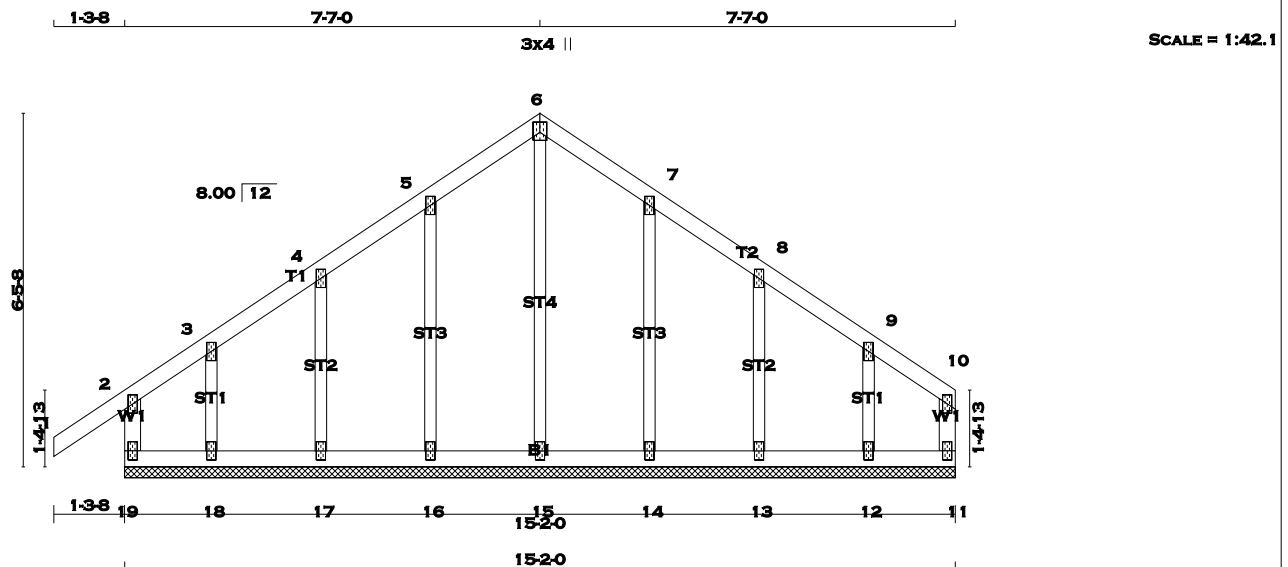
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17-5010

BUILDING DIVISION

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TOTAL WEIGHT = 63 lb [M]

| LUMBER                          |      |        |      | DESCR. |
|---------------------------------|------|--------|------|--------|
| N. L. G. A. RULES               | SIZE | LUMBER |      |        |
| CHORDS                          |      |        |      |        |
| 19 - 2                          | 2x4  | DRY    | No.2 | SPF    |
| 1 - 6                           | 2x4  | DRY    | No.2 | SPF    |
| 6 - 10                          | 2x4  | DRY    | No.2 | SPF    |
| 11 - 10                         | 2x4  | DRY    | No.2 | SPF    |
| 19 - 11                         | 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       |
| 2                           | TMV+p  | MT20   | 2.0 | 4.0 |           |
| 3, 4, 5, 7, 8, 9            |        |        |     |     |           |
| 3                           | TMW+w  | MT20   | 2.0 | 4.0 |           |
| 6                           | TTW+p  | MT20   | 3.0 | 4.0 | 2.25 1.50 |
| 10                          | TMV+p  | MT20   | 2.0 | 4.0 |           |
| 11                          | BMV1+p | MT20   | 2.0 | 4.0 |           |
| 12, 13, 14, 15, 16, 17, 18  |        |        |     |     |           |
| 12                          | BMW1+w | MT20   | 2.0 | 4.0 |           |
| 19                          | BMV1+p | MT20   | 2.0 | 4.0 |           |

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**  
THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.  
THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.  
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)  
**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.  
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

#### LOADING

TOTAL LOAD CASES: (3)

| CHORDS |                           |                           |                | WEBS               |       |                           |               |
|--------|---------------------------|---------------------------|----------------|--------------------|-------|---------------------------|---------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC)  | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. LC2 (LC) |
| FR-TO  |                           | FROM TO                   |                |                    | FR-TO |                           |               |
| 19-2   | -196 / 0                  | 0.0                       | 0.0 0.02 (1)   | 7.81               | 15-6  | -171 / 0                  | 0.11 (1)      |
| 1-2    | 0 / 29                    | -77.3                     | -77.3 0.10 (1) | 10.00              | 16-5  | -155 / 0                  | 0.06 (1)      |
| 2-3    | -19 / 0                   | -77.3                     | -77.3 0.08 (1) | 6.25               | 17-4  | -161 / 0                  | 0.04 (1)      |
| 3-4    | 0 / 7                     | -77.3                     | -77.3 0.04 (1) | 10.00              | 18-3  | -94 / 0                   | 0.01 (1)      |
| 4-5    | 0 / 6                     | -77.3                     | -77.3 0.04 (1) | 10.00              | 14-7  | -157 / 0                  | 0.06 (1)      |
| 5-6    | 0 / 10                    | -77.3                     | -77.3 0.04 (1) | 10.00              | 13-8  | -153 / 0                  | 0.03 (1)      |
| 6-7    | 0 / 10                    | -77.3                     | -77.3 0.04 (1) | 10.00              | 12-9  | -142 / 0                  | 0.02 (1)      |
| 7-8    | 0 / 7                     | -77.3                     | -77.3 0.04 (1) | 10.00              |       |                           |               |
| 8-9    | -1 / 3                    | -77.3                     | -77.3 0.04 (1) | 10.00              |       |                           |               |
| 9-10   | -1 / 2                    | -77.3                     | -77.3 0.03 (1) | 10.00              |       |                           |               |
| 11-10  | -49 / 0                   | 0.0                       | 0.0 0.01 (1)   | 7.81               |       |                           |               |
| 19-18  | 0 / 2                     | -17.5                     | -17.5 0.02 (1) | 10.00              |       |                           |               |
| 18-17  | -2 / 1                    | -17.5                     | -17.5 0.01 (3) | 10.00              |       |                           |               |
| 17-16  | -6 / 0                    | -17.5                     | -17.5 0.01 (3) | 10.00              |       |                           |               |
| 16-15  | -8 / 0                    | -17.5                     | -17.5 0.01 (3) | 10.00              |       |                           |               |
| 15-14  | -8 / 0                    | -17.5                     | -17.5 0.01 (3) | 10.00              |       |                           |               |
| 14-13  | -6 / 0                    | -17.5                     | -17.5 0.01 (3) | 10.00              |       |                           |               |
| 13-12  | -2 / 1                    | -17.5                     | -17.5 0.01 (3) | 10.00              |       |                           |               |
| 12-11  | 0 / 4                     | -17.5                     | -17.5 0.01 (3) | 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

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 (1-2:1), BC=0.02 (18-19:1), WB=0.11 (6-15:1), 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) SHEAR SECTION  
(PSI) (PLI) (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= 0.13 (2) (INPUT = 0.90)  
JSI METAL= 0.06 (6) (INPUT = 1.00)

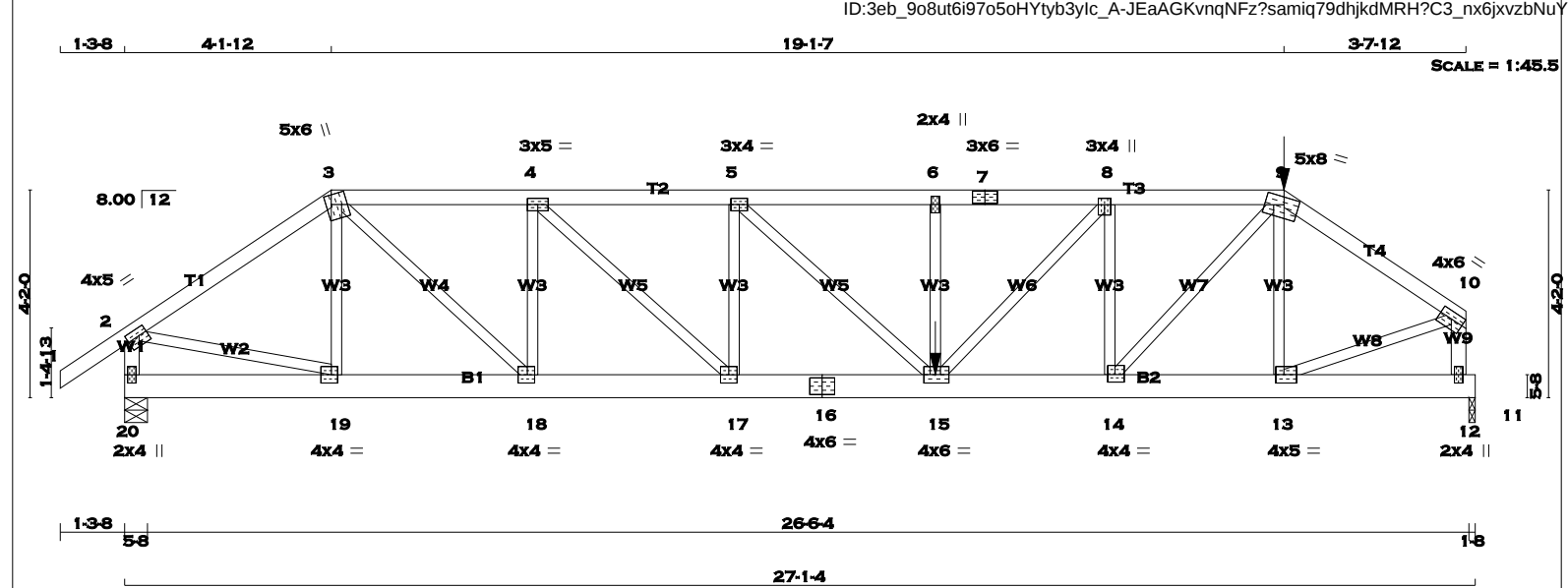


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TOTAL WEIGHT = 2 X 128 = 257 lb [M]

| LUMBER            |      |        |        |
|-------------------|------|--------|--------|
| N. L. G. A. RULES |      |        |        |
| CHORDS            | SIZE | LUMBER | DESCR. |
| 1 - 3             | 2x4  | DRY    | No.2   |
| 3 - 7             | 2x4  | DRY    | No.2   |
| 7 - 9             | 2x4  | DRY    | No.2   |
| 9 - 10            | 2x4  | DRY    | No.2   |
| 20 - 2            | 2x4  | DRY    | No.2   |
| 12 - 10           | 2x4  | DRY    | No.2   |
| 20 - 16           | 2x6  | DRY    | No.2   |
| 16 - 11           | 2x6  | DRY    | No.2   |

ALL WEBS 2x3 DRY No.2 SPF

DRY: SEASONED LUMBER.

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

| CHORDS #ROWS                             | SURFACE SPACING (IN) | LOAD(PLF)  |
|------------------------------------------|----------------------|------------|
| TOP CHORDS : (0.122"x3") SPIRAL NAILS    |                      |            |
| 1-3                                      | 12                   | TOP        |
| 3-7                                      | 12                   | SIDE(34.2) |
| 7-9                                      | 12                   | SIDE(34.2) |
| 9-10                                     | 12                   | SIDE(0.0)  |
| 20-2                                     | 12                   | TOP        |
| 12-10                                    | 12                   | TOP        |
| BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS |                      |            |
| 20-16                                    | 12                   | TOP        |
| 16-11                                    | 12                   | SIDE(8.7)  |
| WEBS : (0.122"x3") SPIRAL NAILS          |                      |            |
| 2x3                                      | 6                    |            |

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF 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    |
|----|--------|--------|-----|-----|------|------|
| 2  | TMVW-t | MT20   | 4.0 | 5.0 | 1.75 | 2.00 |

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

| BEARINGS |      | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----------|------|-------------------------|---------------------------------|-----------|-----------|
| JT       | VERT | HORZ                    | DOWN                            | HORZ      | UPLIFT    |
| 20       | 2090 | 0                       | 2090                            | 0         | 5-8       |
| 11       | 2701 | 0                       | 2701                            | 0         | 1-8       |

UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |
|-----------|----------|-------------------------------|-------|
| JT        | COMBINED | SNOW                          | LIVE  |
| 20        | 1464     | 1039 / 0                      | 0 / 0 |
| 11        | 1897     | 1318 / 0                      | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 20, 11

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.06 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: (3)

| CHORDS |                           |                           |              | WEBS  |                           |                   |                   |
|--------|---------------------------|---------------------------|--------------|-------|---------------------------|-------------------|-------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX UNBRAC LENGTH | FACTORED MAX (LC) |
| FR-TO  |                           | FROM TO                   |              | FR-TO |                           |                   |                   |
| 1-2    | 0 / 29                    | -77.3 -77.3               | 0.06 (1)     | 10-00 | 19-3                      | -373 / 0          | 0.05 (1)          |
| 2-3    | -2385 / 0                 | -77.3 -77.3               | 0.16 (1)     | 5.66  | 3-18                      | 0 / 2050          | 0.25 (1)          |
| 3-4    | -3468 / 0                 | -77.3 -77.3               | 0.14 (1)     | 4.92  | 18-4                      | -1348 / 0         | 0.17 (1)          |
| 4-5    | -4546 / 0                 | -77.3 -77.3               | 0.17 (1)     | 4.38  | 4-17                      | 0 / 1478          | 0.18 (1)          |
| 5-6    | -5179 / 0                 | -77.3 -77.3               | 0.17 (1)     | 4.15  | 17-5                      | -900 / 0          | 0.12 (1)          |
| 6-7    | -5179 / 0                 | -145.8 -145.8             | 0.23 (1)     | 4.06  | 5-15                      | 0 / 868           | 0.11 (1)          |
| 7-8    | -5179 / 0                 | -145.8 -145.8             | 0.23 (1)     | 4.06  | 15-6                      | -382 / 0          | 0.05 (1)          |
| 8-9    | -4192 / 0                 | -145.8 -145.8             | 0.20 (1)     | 4.48  | 15-8                      | 0 / 1455          | 0.18 (1)          |
| 9-10   | -3136 / 0                 | -77.3 -77.3               | 0.14 (1)     | 5.11  | 14-8                      | -1638 / 0         | 0.21 (1)          |
| 20-2   | -2059 / 0                 | 0.0 0.0                   | 0.11 (1)     | 7.71  | 14-9                      | 0 / 2360          | 0.29 (1)          |
| 12-10  | -2811 / 0                 | 0.0 0.0                   | 0.16 (1)     | 6.84  | 13-9                      | -569 / 0          | 0.07 (1)          |
|        |                           |                           |              |       | 2-19                      | 0 / 2035          | 0.25 (1)          |
| 20-19  | 0 / 0                     | -17.5 -17.5               | 0.02 (3)     | 10.00 | 13-10                     | 0 / 2763          | 0.34 (1)          |
| 19-18  | 0 / 1971                  | -17.5 -17.5               | 0.14 (1)     | 10.00 |                           |                   |                   |
| 18-17  | 0 / 3468                  | -17.5 -17.5               | 0.25 (1)     | 10.00 |                           |                   |                   |
| 17-16  | 0 / 4546                  | -17.5 -17.5               | 0.36 (1)     | 10.00 |                           |                   |                   |
| 16-15  | 0 / 4546                  | -17.5 -17.5               | 0.36 (1)     | 10.00 |                           |                   |                   |
| 15-14  | 0 / 4192                  | -33.0 -33.0               | 0.34 (1)     | 10.00 |                           |                   |                   |
| 14-13  | 0 / 2589                  | -33.0 -33.0               | 0.23 (1)     | 10.00 |                           |                   |                   |
| 13-12  | 0 / 0                     | -33.0 -33.0               | 0.19 (1)     | 10.00 |                           |                   |                   |
| 12-11  | 0 / 0                     | -33.0 -33.0               | 0.19 (1)     | 10.00 |                           |                   |                   |

FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC.   | LC1   | MAX-  | MAX+ | FACE  | DIR. | TYPE  |
|----|--------|-------|-------|------|-------|------|-------|
| 9  | 23-3-4 | -219  | -219  | ---  | FRONT | VERT | TOTAL |
| 15 | 16-3-4 | -1262 | -1262 | ---  | FRONT | VERT | TOTAL |

DESIGN CRITERIA

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

SPECIFIED LOADS:

|                       |      |      |     |
|-----------------------|------|------|-----|
| TOP CH.               | LL = | 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  
LEFT SETBACK = 4-1-12  
RIGHT SETBACK = 3-9-6  
END SETBACK = 6-0-0  
END WALL WIDTH = 5-8  
CORNER FRAMING TYPE: CONVENTIONAL  
END JACK TYPE: CONVENTIONAL  
APPLIED TO FRONT SIDE  
- ADDTL LOADS BASED ON 55 % OF GSL.  
LOADS APPLIED TO FIRST 10'-10" OF SPAN MEASURED FROM THE RIGHT.

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 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 (0.90")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.10")  
ALLOWABLE DEFL.(TL)= L/360 (0.90")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.18")

CSI: TC=0.23 (6-8:1) , BC=0.36 (15-17:1) , WB=0.34 (10-13:1) , SSI=0.90 (11-12:1)

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) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

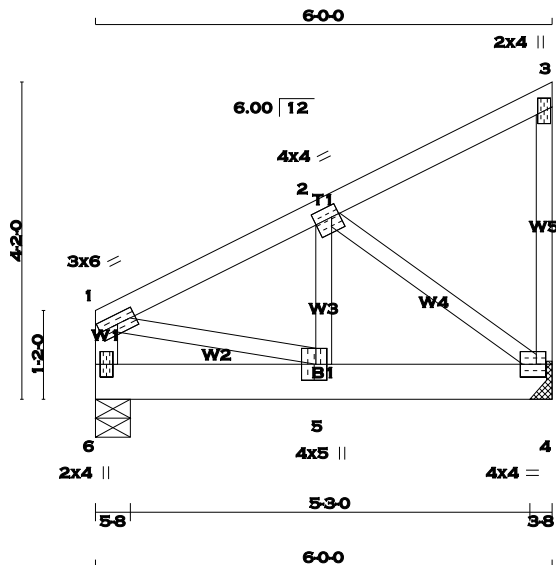
PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 0.250 degrees



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SCALE = 1:30.3

TOTAL WEIGHT = 28 lb [M]

| LUMBER            |        |      |        |        |
|-------------------|--------|------|--------|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
| 1 - 3             | 2x4    | DRY  | No.2   | SPF    |
| 4 - 3             | 2x3    | DRY  | No.2   | SPF    |
| 6 - 1             | 2x4    | DRY  | No.2   | SPF    |
| 6 - 4             | 2x6    | 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 | 6.0 |           |
| 2                           | TMVW-t  | MT20   | 4.0 | 4.0 | 1.75 1.25 |
| 3                           | TMV+p   | MT20   | 2.0 | 4.0 |           |
| 4                           | BMVW1-t | MT20   | 4.0 | 4.0 | 2.00 1.50 |
| 5                           | BMVW-t  | MT20   | 4.0 | 5.0 | 2.50 1.75 |
| 6                           | BMV1+p  | MT20   | 2.0 | 4.0 |           |

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     |     |
| 4        |  | 1263                    | 0    | 1263                            | 0    | 0         | HANGER BY OTHERS    |           |     |
| 6        |  | 1263                    | 0    | 1263                            | 0    | 0         | MIN. SEAT SIZE: 3-8 | 5-8       | 5-8 |

#### UNFACTORED REACTIONS

| 1ST LCASE |  | MAX./MIN. COMPONENT REACTIONS |         |       |           |       |         |       |
|-----------|--|-------------------------------|---------|-------|-----------|-------|---------|-------|
| JT        |  | COMBINED                      | SNOW    | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 4         |  | 886                           | 620 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 266 / 0 | 0 / 0 |
| 6         |  | 886                           | 620 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 266 / 0 | 0 / 0 |

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

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.93 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: (3)

| CHORDS |                           |                           |                               | WEBS  |                           |                               |          |
|--------|---------------------------|---------------------------|-------------------------------|-------|---------------------------|-------------------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED VERT. LOAD (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED VERT. LOAD (LC) |          |
| FR-TO  |                           | FROM                      | TO                            | FR-TO |                           |                               |          |
| 1-2    | -1076 / 0                 | -77.3                     | -77.3 0.11 (1)                | 5-93  | 0 / 946                   | 0.23 (1)                      |          |
| 2-3    | -10 / 0                   | -77.3                     | -77.3 0.10 (1)                | 10.00 | 2-4 -1218 / 0             | 0.30 (1)                      |          |
| 4-3    | -94 / 0                   | 0.0                       | 0.0 0.03 (1)                  | 7.81  | 1-5                       | 0 / 1002                      | 0.25 (1) |
| 6-1    | -830 / 0                  | 0.0                       | 0.0 0.09 (1)                  | 7.81  |                           |                               |          |
| 6-5    | 0 / 0                     | -343.5                    | -343.5 0.20 (1)               | 10.00 |                           |                               |          |
| 5-4    | 0 / 971                   | -343.5                    | -343.5 0.33 (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 = 16-2-8  
END DISTANCE = 6-0-0  
END SPAN CARRIED = 16-2-8  
END WALL WIDTH = 5-8  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 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 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.20")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.11 (1-2:1) , BC=0.33 (4-5:1) , WB=0.30 (2-4:1) , SSI=0.40 (5-6:1)

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) SHEAR SECTION  
(PSI) (PLI) (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.

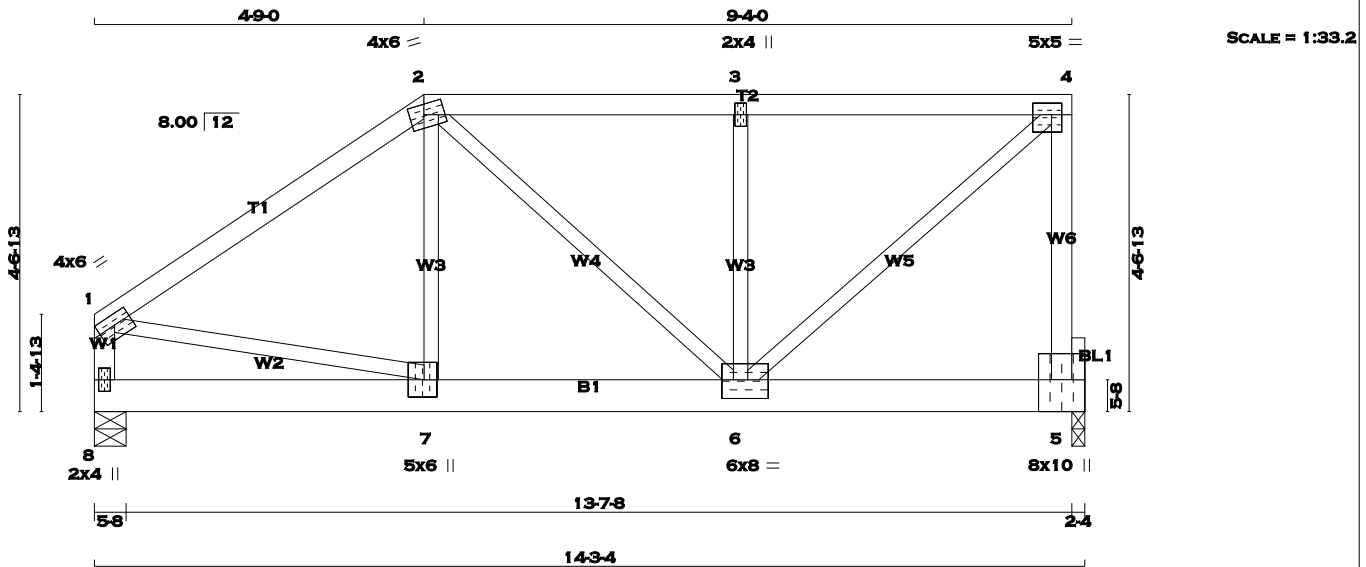
JSI GRIP= 0.84 (2) (INPUT = 0.90 )  
JSI METAL= 0.36 (4) (INPUT = 1.00 )



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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.





TOTAL WEIGHT = 6 X 68 = 408 lb [M]

| LUMBER            |      |        |            |
|-------------------|------|--------|------------|
| N. L. G. A. RULES |      |        |            |
| CHORDS            | SIZE | LUMBER | DESCR.     |
| 1 - 2             | 2x4  | DRY    | No.2       |
| 2 - 4             | 2x4  | DRY    | No.2       |
| 5 - 4             | 2x4  | DRY    | No.2       |
| 8 - 1             | 2x4  | DRY    | No.2       |
| 8 - 5             | 2x6  | DRY    | 2100F 1.8E |

| BEARING BLOCKS  |     |     |      |
|-----------------|-----|-----|------|
| BL1             | 2x8 | DRY | No.2 |
| ALL WEBS EXCEPT | 2x3 | DRY | No.2 |

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    |                      |             |
| 1-2                                      | 12                   | TOP         |
| 2-4                                      | 12                   | TOP         |
| 4-5                                      | 12                   | TOP         |
| 8-1                                      | 12                   | TOP         |
| BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS |                      |             |
| 8-5                                      | 5                    | SIDE(517.7) |
| WEBS : (0.122"x3") SPIRAL NAILS          |                      |             |
| 2x3                                      | 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.

| PLATES (table is in inches) |         |        |     |      |           |
|-----------------------------|---------|--------|-----|------|-----------|
| JT                          | TYPE    | PLATES | W   | LEN  | Y X       |
| 1                           | TMVW-t  | MT20   | 4.0 | 6.0  | 1.75 Edge |
| 2                           | TTWW-m  | MT20   | 4.0 | 6.0  | 1.75 2.50 |
| 3                           | TMW+w   | MT20   | 2.0 | 4.0  |           |
| 4                           | TMVW-t  | MT20   | 5.0 | 5.0  | 2.00 1.75 |
| 5                           | BMVK1+p | MT20   | 8.0 | 10.0 | 5.50 Edge |
| 6                           | BMWWW-t | MT20   | 6.0 | 8.0  | 3.25 2.00 |

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

| BEARINGS                |      |                                 |        |
|-------------------------|------|---------------------------------|--------|
| FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |        |
| JT                      | VERT | HORZ                            | UPLIFT |
| 5                       | 6084 | 0                               | 0      |
| 8                       | 6073 | 0                               | 0      |

| UNFACTORED REACTIONS |          |      |           |           |      |      |      |
|----------------------|----------|------|-----------|-----------|------|------|------|
| 1ST LCASE            | MAX      | MIN  | COMPONENT | REACTIONS |      |      |      |
| JT                   | COMBINED | SNOW | LIVE      | PERM.LIVE | WIND | DEAD | SOIL |
| 5                    | 4270     | 2988 | 0         | 0/0       | 0/0  | 1281 | 0/0  |
| 8                    | 4262     | 2981 | 0         | 0/0       | 0/0  | 1281 | 0/0  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5, 8  
BEARING SIZE FACTOR = 1.08 AT JNT(S) 5 ( BASED ON SUPPORT DEPTH = 1-8 )

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.69 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

| LOADING               |                           |                           |                                    |
|-----------------------|---------------------------|---------------------------|------------------------------------|
| TOTAL LOAD CASES: (3) |                           |                           |                                    |
| CHORDS                |                           |                           |                                    |
| MEMB.                 | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED UNBRACED LENGTH (LC) |
| FR-TO                 |                           | FROM TO                   |                                    |
| 1-2                   | -5878 / 0                 | -77.3 -77.3               | 0.17 (1) 4.69                      |
| 2-3                   | -4826 / 0                 | -77.3 -77.3               | 0.10 (1) 5.13                      |
| 3-4                   | -4826 / 0                 | -77.3 -77.3               | 0.11 (1) 5.13                      |
| 5-4                   | -4537 / 0                 | 0.0 0.0                   | 0.46 (1) 6.68                      |
| 8-1                   | -4457 / 0                 | 0.0 0.0                   | 0.15 (1) 6.73                      |
| 8-7                   | 0 / 0                     | -794.1 -794.1             | 0.20 (1) 10.00                     |
| 7-6                   | 0 / 4960                  | -794.1 -794.1             | 0.26 (1) 10.00                     |
| 6-5                   | -158 / 0                  | -794.1 -794.1             | 0.18 (1) 6.25                      |

#### 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: CStdGirder  
START DISTANCE = 0-0  
START SPAN CARRIED = 35-2-8  
END DISTANCE = 14-3-4  
END SPAN CARRIED = 35-2-8  
END WALL WIDTH = 5-8  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 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 (0.46")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (0.46")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.08")

CSI: TC=0.46 (4-5:1) , BC=0.26 (6-7:1) , WB=0.50 (4-6:1) , SSI=0.45 (7-8:1)

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) SHEAR SECTION  
(PSI) (PLI) (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= 0.90 (2) (INPUT = 0.90 )  
JSI METAL= 0.50 (1) (INPUT = 1.00 )



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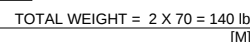
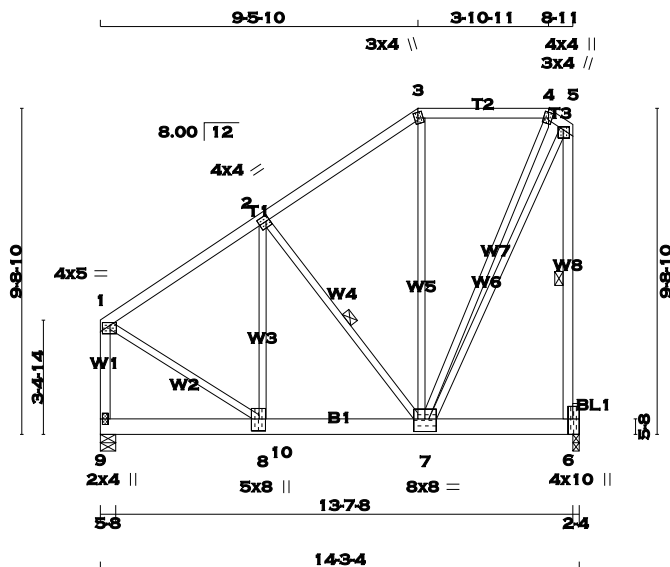
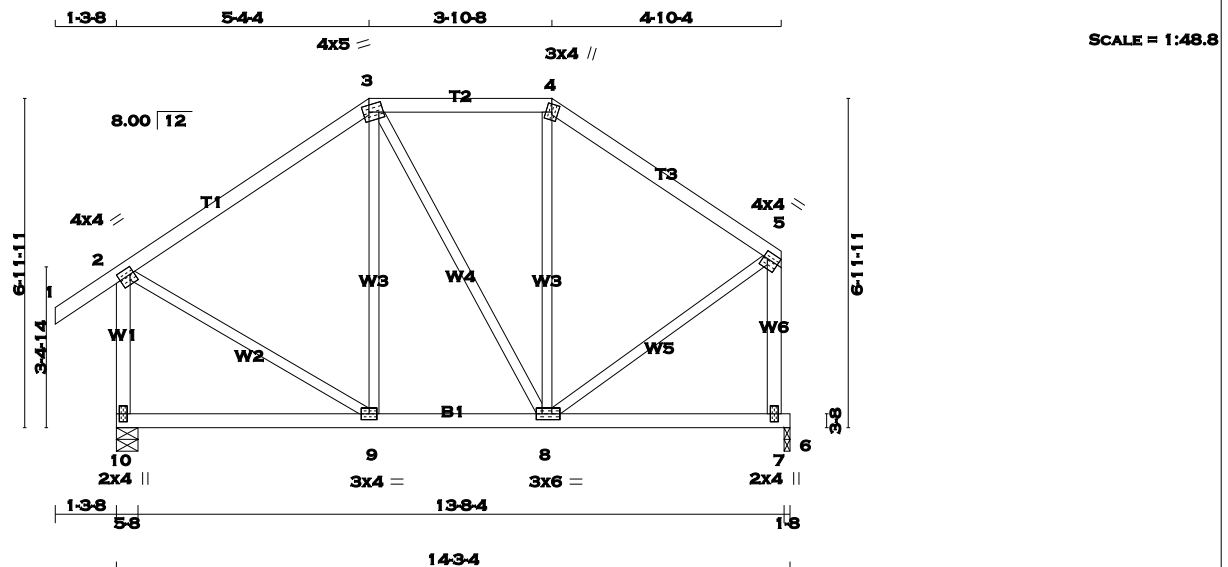


PLATE ROTATION L. S. De  
 **Kohl's**  
 CONTINUED ON PAGE 2





TOTAL WEIGHT = 70 lb [M]

| 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 - 5                 | 2x4  | DRY | No.2   | SPF    |
| 10 - 2                | 2x4  | DRY | No.2   | SPF    |
| 7 - 5                 | 2x4  | DRY | No.2   | SPF    |
| 10 - 6                | 2x4  | DRY | No.2   | SPF    |
| ALL WEBS<br>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 | 4.0 | 1.75 | 1.00 |
| 3                                                                                | TTWW-m  | MT20   | 4.0 | 5.0 | 1.75 | 1.50 |
| 4                                                                                | TTW+m   | MT20   | 3.0 | 4.0 |      |      |
| 5                                                                                | TMVW-t  | MT20   | 4.0 | 4.0 | 1.75 | Edge |
| 7                                                                                | BMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 8                                                                                | BMVWW-t | MT20   | 3.0 | 6.0 | 1.50 | 1.50 |
| 9                                                                                | BMVWW-t | MT20   | 3.0 | 4.0 |      |      |
| 10                                                                               | 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. |         |        |     |     |      |      |

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

| BEARINGS |  | FACTORED       |      | MAXIMUM FACTORED |      | INPUT  |       | REQRD |  |
|----------|--|----------------|------|------------------|------|--------|-------|-------|--|
|          |  | GROSS REACTION |      | GROSS REACTION   |      | BRG    |       | BRG   |  |
| JT       |  | VERT           | HORZ | DOWN             | HORZ | UPLIFT | IN-SX | IN-SX |  |
| 10       |  | 1044           | 0    | 1044             | 0    | 0      | 5-8   | 5-8   |  |
| 6        |  | 923            | 0    | 923              | 0    | 0      | 1-8   | 1-8   |  |

| UNFACTORED REACTIONS |          |                               |       |           |       |         |       |
|----------------------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| 1ST LCASE            |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
| JT                   | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 10                   | 730      | 524 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 206 / 0 | 0 / 0 |
| 6                    | 648      | 452 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 197 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 10, 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: (3)

| CHORDS |          |             |                | WEBS  |     |             |          |
|--------|----------|-------------|----------------|-------|-----|-------------|----------|
| MEMB.  |          | FACTORED    |                | MEMB. |     | FACTORED    |          |
|        |          | FORCE (LBS) | VERT. LOAD LC1 |       |     | FORCE (LBS) | MAX      |
|        |          |             | CSI (LC)       |       |     |             | CSI (LC) |
| FR-TO  |          | FROM        | TO             | FR-TO |     | FROM        | TO       |
| 1-2    | 0 / 29   | -77.3       | -77.3 0.11 (1) | 10.00 | 9-3 | -17 / 67    | 0.03 (3) |
| 2-3    | -590 / 0 | -77.3       | -77.3 0.44 (1) | 6.25  | 3-8 | -14 / 0     | 0.02 (1) |
| 3-4    | -483 / 0 | -77.3       | -77.3 0.22 (1) | 6.25  | 8-4 | -14 / 61    | 0.02 (3) |
| 4-5    | -582 / 0 | -77.3       | -77.3 0.36 (1) | 6.25  | 2-9 | 0 / 563     | 0.14 (1) |
| 10-2   | -918 / 0 | 0.0         | 0.0 0.19 (1)   | 7.81  | 8-5 | 0 / 587     | 0.15 (1) |
| 7-5    | -844 / 0 | 0.0         | 0.0 0.20 (1)   | 7.81  |     |             |          |
| 10-9   | 0 / 0    | -54.1       | -54.1 0.22 (1) | 10.00 |     |             |          |
| 9-8    | 0 / 490  | -54.1       | -54.1 0.31 (1) | 10.00 |     |             |          |
| 8-7    | 0 / 0    | -54.1       | -54.1 0.32 (1) | 10.00 |     |             |          |
| 7-6    | 0 / 0    | -54.1       | -54.1 0.26 (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**

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

GIRDER TYPE: CStdGirder  
START DISTANCE = 0-0  
START SPAN CARRIED = 4-0-0  
END DISTANCE = 14-2-10  
END SPAN CARRIED = 4-0-0  
END WALL WIDTH = 5-8  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 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 (0.48")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.06")  
ALLOWABLE DEFL.(TL)= L/360 (0.48")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.12")

CSI: TC=0.44 (2-3:1), BC=0.32 (7-8:1), WB=0.15 (5-8:1), SSI=0.79 (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) | SHEAR    | SECTION   |
|             | (PSI)     | (PLI)    | (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= 0.89 (8) (INPUT = 0.90 )  
JSI METAL= 0.29 (2) (INPUT = 1.00 )



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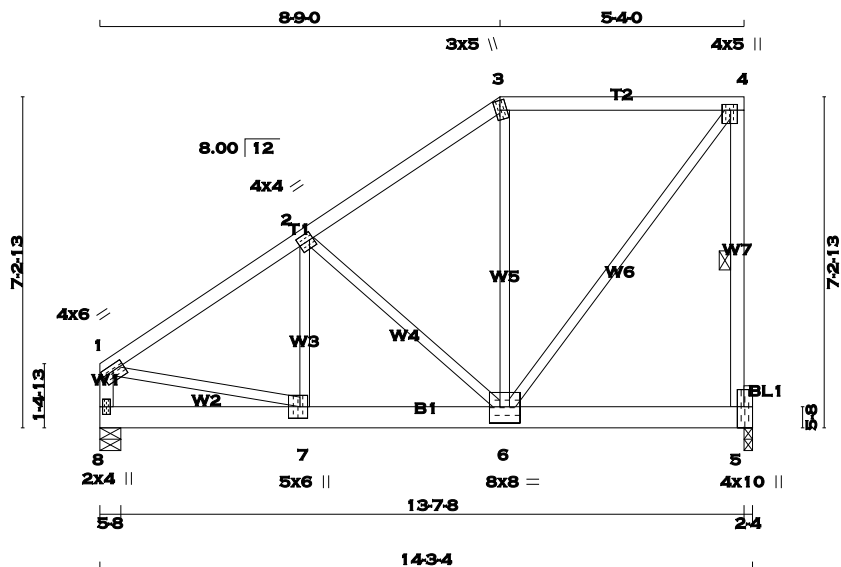
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IN THE DESIGN OF THIS COMPONENT.





Kott Lumber Uxbridge, Stouffville, ON, CGC

Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Mon Mar 13 10:57:33 2017 Page 1  
ID:3eb\_9o8ut6i97o5oHYtyb3ylc\_A-Fciwh0w1M\_VhF9k9pFAdi6o2AA8MT3ZHEfbq0nzbNuVf



TOTAL WEIGHT = 3 X 75 = 226 lb [M]

| LUMBER |      | N. L. G. A. RULES |            | LUMBER | DESCR. |
|--------|------|-------------------|------------|--------|--------|
| CHORDS | SIZE | DRY               | SPF        |        |        |
| 1 - 3  | 2x4  | DRY               | No.2       | SPF    |        |
| 3 - 4  | 2x4  | DRY               | No.2       | SPF    |        |
| 5 - 4  | 2x4  | DRY               | No.2       | SPF    |        |
| 8 - 1  | 2x4  | DRY               | No.2       | SPF    |        |
| 8 - 5  | 2x6  | DRY               | 2100F 1.8E | SPF    |        |

| BEARING BLOCKS |      | LUMBER | DESCR. |
|----------------|------|--------|--------|
| BL1            | SIZE |        |        |
| BL1            | 2x6  | DRY    | No.2   |
| ALL WEBS       | 2x3  | DRY    | No.2   |
| EXCEPT         |      |        |        |

DRY: SEASONED LUMBER.

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

| CHORDS #ROWS                             | SURFACE SPACING (IN) | LOAD(PLF)   |
|------------------------------------------|----------------------|-------------|
| TOP CHORDS : (0.122"x3") SPIRAL NAILS    |                      |             |
| 1-3                                      | 12                   | TOP         |
| 3-4                                      | 12                   | TOP         |
| 4-5                                      | 12                   | TOP         |
| 8-1                                      | 12                   | TOP         |
| BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS |                      |             |
| 8-5                                      | 5                    | SIDE(567.8) |
| WEBS : (0.122"x3") SPIRAL NAILS          |                      |             |
| 2x3                                      | 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.

#### PLATES (table is in inches)

| JT | TYPE    | PLATES | W   | LEN  | Y    | X    |
|----|---------|--------|-----|------|------|------|
| 1  | TMVW-t  | MT20   | 4.0 | 6.0  | 1.50 | 3.00 |
| 2  | TMVW-t  | MT20   | 4.0 | 4.0  | 2.00 | 1.00 |
| 3  | TTW+m   | MT20   | 3.0 | 5.0  | 2.50 | 1.25 |
| 4  | TMVW+p  | MT20   | 4.0 | 5.0  | 1.50 | 1.75 |
| 5  | BMVK1+t | MT20   | 4.0 | 10.0 | Edge | 1.75 |
| 6  | BMVWW-t | MT20   | 8.0 | 8.0  | 4.25 | 4.00 |

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

| BEARINGS |      | FACTORED |          | MAXIMUM FACTORED |          | INPUT |      | REQRD |     |
|----------|------|----------|----------|------------------|----------|-------|------|-------|-----|
| JT       | VERT | GROSS    | REACTION | GROSS            | REACTION | DOWN  | HORZ | BRG   | BRG |
| 5        | 6607 | 0        | 6607     | 0                | 0        | 2-4   | 2-4  | 2-4   | 2-4 |
| 8        | 6596 | 0        | 6596     | 0                | 0        | 5-8   | 5-8  | 5-8   | 5-8 |

#### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       | PERM.LIVE |       | WIND     |       | DEAD     |          | SOIL  |           |
|-----------|----------|-------------------------------|-------|-----------|-------|----------|-------|----------|----------|-------|-----------|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD     | SOIL  | COMBINED | SNOW     | LIVE  | PERM.LIVE |
| 5         | 4637     | 3245 / 0                      | 0 / 0 | 0 / 0     | 0 / 0 | 1392 / 0 | 0 / 0 | 4637     | 3245 / 0 | 0 / 0 | 0 / 0     |
| 8         | 4629     | 3238 / 0                      | 0 / 0 | 0 / 0     | 0 / 0 | 1391 / 0 | 0 / 0 | 4629     | 3238 / 0 | 0 / 0 | 0 / 0     |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5, 8  
BEARING SIZE FACTOR = 1.08 AT JNT(S) 5 ( BASED ON SUPPORT DEPTH = 1-8 )

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.56 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 2x4 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 4-5. DBS = 6-0-0. CBF = 179 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) TO EACH PLY 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: (3)

| CHORDS |             | MAX. FACTORED    |         | FACTORED |        | W E B S |             | MAX. FACTORED |          |
|--------|-------------|------------------|---------|----------|--------|---------|-------------|---------------|----------|
| MEMB.  | FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX | CS1 (LC) | UNBRAC | MEMB.   | FORCE (LBS) | MAX           | CS1 (LC) |
| FR-TO  |             | FROM             | TO      | LENGTH   | FR-TO  |         |             |               |          |
| 1-2    | -6435 / 0   | -77.3            | -77.3   | 0.14 (1) | 4.56   | 7-2     | 0 / 2758    | 0.21 (1)      |          |
| 2-3    | -4061 / 0   | -77.3            | -77.3   | 0.09 (1) | 5.51   | 2-6     | -2713 / 0   | 0.53 (1)      |          |
| 3-4    | -3389 / 0   | -77.3            | -77.3   | 0.15 (1) | 5.81   | 6-3     | 0 / 1900    | 0.14 (1)      |          |
| 5-4    | -4777 / 0   | 0.0              | 0.0     | 0.36 (1) | 5.24   | 6-4     | 0 / 5758    | 0.43 (1)      |          |
| 8-1    | -4918 / 0   | 0.0              | 0.0     | 0.17 (1) | 6.47   | 1-7     | 0 / 5498    | 0.41 (1)      |          |
| 8-7    | 0 / 0       | -869.2           | -869.2  | 0.20 (1) | 10.00  |         |             |               |          |
| 7-6    | 0 / 5366    | -869.2           | -869.2  | 0.32 (1) | 10.00  |         |             |               |          |
| 6-5    | -102 / 0    | -869.2           | -869.2  | 0.23 (1) | 6.25   |         |             |               |          |

#### 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: CStdGirder  
START DISTANCE = 0-0  
START SPAN CARRIED = 38-4-8  
END DISTANCE = 14-3-4  
END SPAN CARRIED = 38-4-8  
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, CBC 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 (0.46")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (0.46")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.09")

CSI: TC=0.36 (4-5:1), BC=0.32 (6-7:1), WB=0.53 (2-6:1), SSI=0.52 (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) SHEAR |         | SECTION |         |
|-------------|---------|-----------------------|---------|---------|---------|
| (PSI)       | (PLI)   | (PSI)                 | (PLI)   | (PSI)   | (PLI)   |
| MAX MIN     | MAX MIN | MAX MIN               | MAX MIN | MAX MIN | MAX MIN |
| MT20        | 618     | 354                   | 1667    | 822     | 2284    |

PLATE PLACEMENT TOL. = 0.250 inches

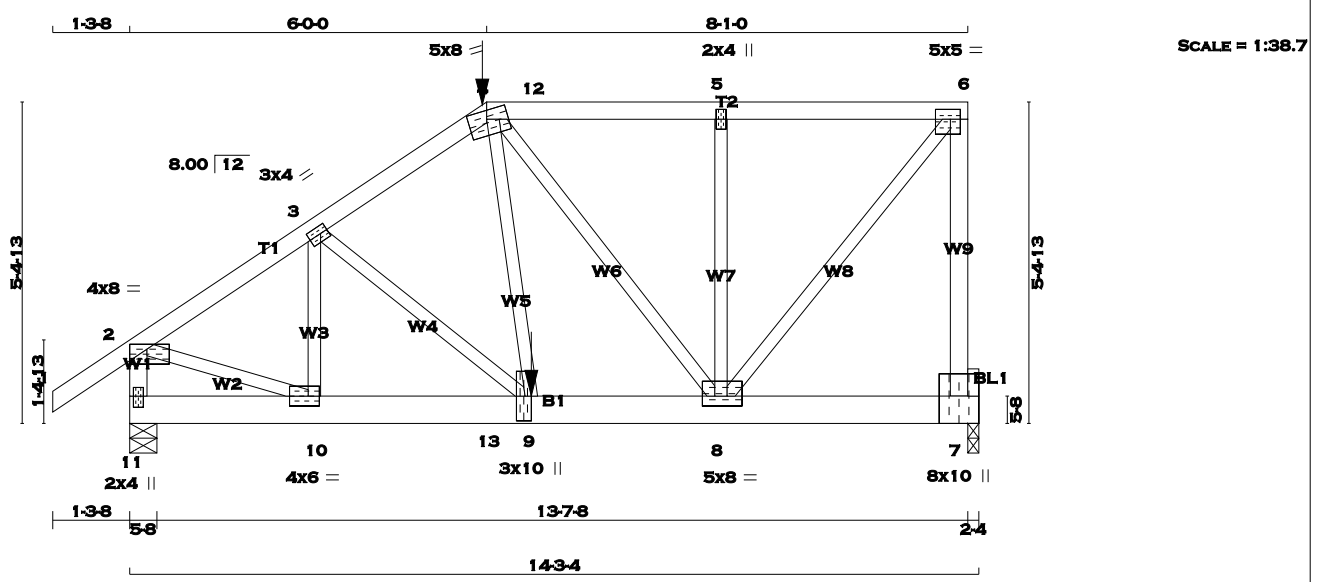
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (4) (INPUT = 0.90 )  
JSI METAL= 0.54 (1) (INPUT = 1.00 )



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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.



TOTAL WEIGHT = 77 lb [M]

| LUMBER                |      |        |            |     |
|-----------------------|------|--------|------------|-----|
| N. L. G. A. RULES     |      |        |            |     |
| CHORDS                | SIZE | LUMBER | DESCR.     |     |
| 1 - 4                 | 2x4  | DRY    | No.2       | SPF |
| 4 - 6                 | 2x4  | DRY    | No.2       | SPF |
| 7 - 6                 | 2x4  | DRY    | No.2       | SPF |
| 11 - 2                | 2x4  | DRY    | No.2       | SPF |
| 11 - 7                | 2x6  | DRY    | 2100F 1.8E | SPF |
| BEARING BLOCKS        |      |        |            |     |
| BL1                   | 2x6  | 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-p  | MT20   | 4.0 | 8.0  | 1.00 3.50 |
| 3                                                                                | TMVW-t  | MT20   | 3.0 | 4.0  | 1.50 1.50 |
| 4                                                                                | TTWW-m  | MT20   | 5.0 | 8.0  | 1.75 3.75 |
| 5                                                                                | TMW+w   | MT20   | 2.0 | 4.0  |           |
| 6                                                                                | TMVW-t  | MT20   | 5.0 | 5.0  | 2.00 2.00 |
| 7                                                                                | BMVK1+p | MT20   | 8.0 | 10.0 | 5.50 Edge |
| 8                                                                                | BMVWV-t | MT20   | 5.0 | 8.0  | 2.00 2.50 |
| 9                                                                                | BMVWV-t | MT20   | 3.0 | 10.0 | 5.00 1.25 |
| 10                                                                               | BMVWV-t | MT20   | 4.0 | 6.0  | 2.00 2.25 |
| 11                                                                               | BMV1+p  | MT20   | 2.0 | 4.0  | 2.25 1.00 |
| 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. |         |        |     |      |           |

**HANGERS NOTES**  
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 348.1 lbs FACTORED DOWN AT 6-0-0 ON TOP CHORD, AND 1734.1 lbs FACTORED DOWN AT 6-9-0 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.



| 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     |  |
| 7                                                                                             |  | 1715                    | 0    | 1715                            | 0    | 0         | 2-4   | 2-4       |  |
| 11                                                                                            |  | 1963                    | 0    | 1963                            | 0    | 0         | 5-8   | 5-8       |  |

| UNFACTORED REACTIONS |           |          |      |      |           |      |      |
|----------------------|-----------|----------|------|------|-----------|------|------|
| JT                   | 1ST LCASE | COMBINED | SNOW | LIVE | PERM.LIVE | WIND | DEAD |
| 7                    | 1202      | 850      | 0    | 0    | 0         | 0    | 352  |
| 11                   | 1378      | 962      | 0    | 0    | 0         | 0    | 416  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 7, 11

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.46 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

| LOADING               |                           |                           |               |                    |       |                           |               |                    |  |
|-----------------------|---------------------------|---------------------------|---------------|--------------------|-------|---------------------------|---------------|--------------------|--|
| TOTAL LOAD CASES: (3) |                           |                           |               |                    |       |                           |               |                    |  |
| CHORDS                |                           |                           |               |                    | WEBS  |                           |               |                    |  |
| MEMB.                 | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (LBS) | MAX. LC1 (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. LC1 (LC) | MAX. UNBRAC LENGTH |  |
| FR-TO                 |                           | FROM                      | TO            |                    | FR-TO |                           |               |                    |  |
| 1-2                   | 0 / 29                    | -77.3                     | -77.3         | 0.11 (1)           | 10.00 | 10-3                      | -397 / 0      | 0.08 (1)           |  |
| 2-3                   | -2061 / 0                 | -77.3                     | -77.3         | 0.16 (1)           | 4.55  | 3-9                       | -11 / 102     | 0.03 (1)           |  |
| 3-4                   | -2182 / 0                 | -77.3                     | -77.3         | 0.15 (1)           | 4.46  | 4-8                       | -1318 / 0     | 0.92 (1)           |  |
| 4-12                  | -1243 / 0                 | -145.8                    | -145.8        | 0.25 (1)           | 5.43  | 8-5                       | -387 / 0      | 0.16 (1)           |  |
| 12-5                  | -1243 / 0                 | -77.3                     | -77.3         | 0.25 (1)           | 5.43  | 8-6                       | 0 / 2031      | 0.50 (1)           |  |
| 5-6                   | -1243 / 0                 | -77.3                     | -77.3         | 0.25 (1)           | 5.43  | 2-10                      | 0 / 1810      | 0.45 (1)           |  |
| 7-6                   | -1692 / 0                 | 0.0                       | 0.0           | 0.81 (1)           | 6.35  | 4-9                       | 0 / 1661      | 0.41 (1)           |  |
| 11-2                  | -1910 / 0                 | 0.0                       | 0.0           | 0.21 (1)           | 6.03  |                           |               |                    |  |
| 11-10                 | 0 / 0                     | -33.0                     | -33.0         | 0.02 (3)           | 10.00 |                           |               |                    |  |
| 10-13                 | 0 / 1724                  | -33.0                     | -33.0         | 0.16 (1)           | 10.00 |                           |               |                    |  |
| 13-9                  | 0 / 1724                  | -33.0                     | -33.0         | 0.16 (1)           | 10.00 |                           |               |                    |  |
| 9-8                   | 0 / 2058                  | -17.5                     | -17.5         | 0.18 (1)           | 10.00 |                           |               |                    |  |
| 8-7                   | -49 / 0                   | -17.5                     | -17.5         | 0.02 (3)           | 6.25  |                           |               |                    |  |

| FACTORED CONCENTRATED LOADS (LBS) |       |       |       |      |       |      |       |
|-----------------------------------|-------|-------|-------|------|-------|------|-------|
| JT                                | LOC.  | LC1   | MAX-  | MAX+ | FACE  | DIR. | TYPE  |
| 4                                 | 6-0-0 | -348  | -348  | ---  | FRONT | VERT | TOTAL |
| 9                                 | 6-9-0 | -1734 | -1734 | ---  | FRONT | VERT | TOTAL |

**DESIGN CRITERIA**

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

| SPECIFIED LOADS:      |    |   |          |
|-----------------------|----|---|----------|
| TOP CH.               | LL | = | 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  
LEFT SETBACK = 6-0-0  
RIGHT SETBACK = 0-0  
END SETBACK = 6-0-0  
END WALL WIDTH = 5-8  
CORNER FRAMING TYPE: CONVENTIONAL  
END JACK TYPE: CONVENTIONAL  
APPLIED TO FRONT SIDE  
- ADDTL LOADS BASED ON 55 % OF GSL.  
LOADS APPLIED TO FIRST 6-9-0 OF SPAN MEASURED FROM THE LEFT.

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 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 (0.46")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (0.46")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.08")

CSI: TC=0.81 (6-7:1), BC=0.18 (8-9:1), WB=0.92 (4-8:1), SSI=0.17 (5-6:1)

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) | SHEAR | SECTION |      |
| (PSI)           | (PLI) | (PLI)   |      |
| MT20            | 618   | 354     | 1667 |
|                 | 822   | 2284    | 1656 |

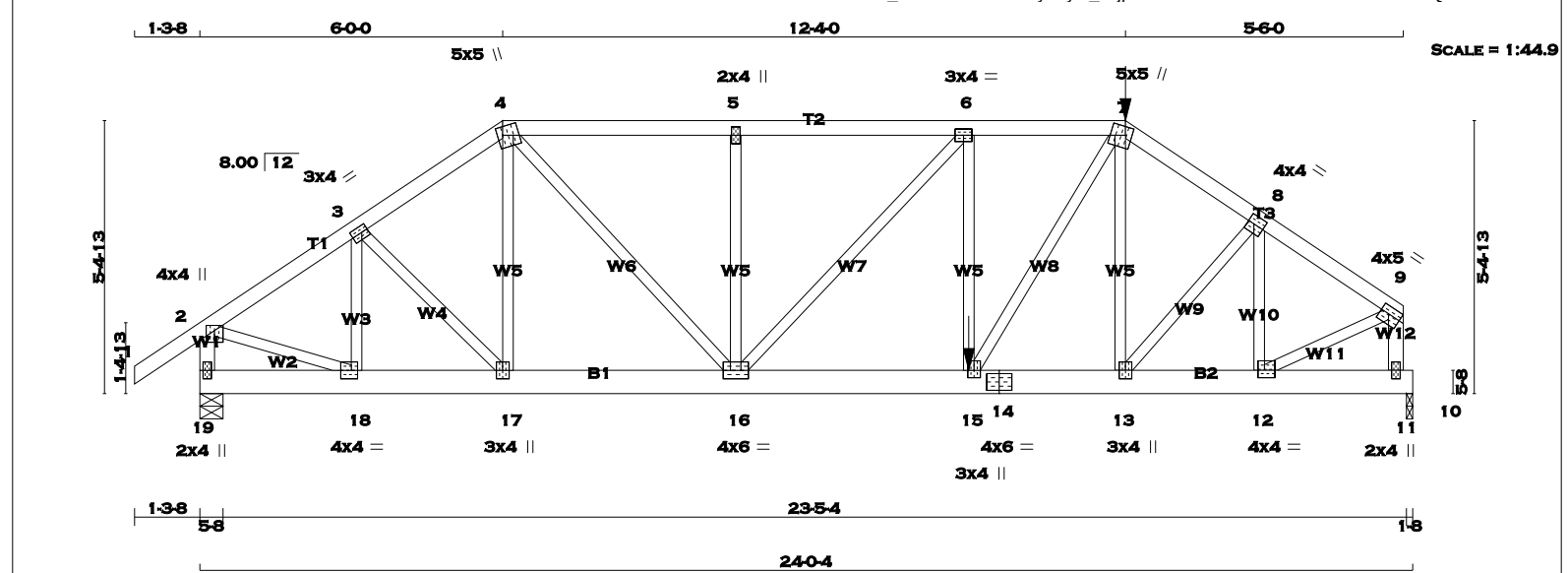
PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 0.250 degrees

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TOTAL WEIGHT = 2 X 123 = 245 lb [M]

| LUMBER            |        |      |        |
|-------------------|--------|------|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER |
| 1 - 4             | 2x4    | DRY  | No.2   |
| 4 - 7             | 2x4    | DRY  | No.2   |
| 7 - 9             | 2x4    | DRY  | No.2   |
| 19 - 2            | 2x4    | DRY  | No.2   |
| 11 - 9            | 2x4    | DRY  | No.2   |
| 19 - 14           | 2x6    | DRY  | No.2   |
| 14 - 10           | 2x6    | DRY  | No.2   |
| ALL WEBS EXCEPT   | 2x3    | DRY  | No.2   |

DRY: SEASONED LUMBER.

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

| CHORDS #ROWS                             | SURFACE SPACING (IN) | LOAD(PLF) |
|------------------------------------------|----------------------|-----------|
| TOP CHORDS : (0.122"x3") SPIRAL NAILS    |                      |           |
| 1-4                                      | 1                    | 12        |
| 4-7                                      | 1                    | 12        |
| 7-9                                      | 1                    | 12        |
| 19-2                                     | 1                    | 12        |
| 11-9                                     | 1                    | 12        |
| BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS |                      |           |
| 19-14                                    | 2                    | 12        |
| 14-10                                    | 2                    | 12        |
| WEBS : (0.122"x3") SPIRAL NAILS          |                      |           |
| 2x3                                      | 1                    | 6         |

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF 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       |
| 2                           | TMVW+p | MT20   | 4.0 | 4.0 | 1.25 2.00 |
| 3                           | TMVW-i | MT20   | 3.0 | 4.0 | 1.50 1.50 |
| 4                           | TTWW+m | MT20   | 5.0 | 5.0 | 2.00 1.25 |



**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    |
| 19       | 1847 | 0                       | 1847                            | 0         | 0         |
| 10       | 2387 | 0                       | 2387                            | 0         | 0         |

| UNFACTORED REACTIONS |           |           |           |           |       |         |
|----------------------|-----------|-----------|-----------|-----------|-------|---------|
| JT                   | 1ST LCASE | MAX./MIN. | COMPONENT | REACTIONS |       |         |
| 19                   | COMBINED  | SNOW      | LIVE      | PERM.LIVE | WIND  | DEAD    |
| 19                   | 1293      | 922 / 0   | 0 / 0     | 0 / 0     | 0 / 0 | 371 / 0 |
| 10                   | 1678      | 1160 / 0  | 0 / 0     | 0 / 0     | 0 / 0 | 518 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 19, 10

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.15 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: (3)

| CHORDS |                           |                           |                        | WEBS  |                           |                        |          |
|--------|---------------------------|---------------------------|------------------------|-------|---------------------------|------------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (LBS) | MAX. FACTORED LC1 (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED LC1 (LC) |          |
| FR-TO  |                           | FROM                      | TO                     | FR-TO |                           | FROM                   | TO       |
| 1-2    | 0 / 29                    | -77.3                     | -77.3 0.06 (1)         | 10.00 | 18-3                      | -523 / 0               | 0.05 (1) |
| 2-3    | -1929 / 0                 | -77.3                     | -77.3 0.07 (1)         | 6.24  | 3-17                      | 0 / 199                | 0.02 (1) |
| 3-4    | -2127 / 0                 | -77.3                     | -77.3 0.07 (1)         | 6.02  | 17-4                      | -27 / 41               | 0.01 (3) |
| 4-5    | -2642 / 0                 | -77.3                     | -77.3 0.15 (1)         | 5.45  | 4-16                      | 0 / 1312               | 0.16 (1) |
| 5-6    | -2642 / 0                 | -77.3                     | -77.3 0.15 (1)         | 5.45  | 16-5                      | -390 / 0               | 0.08 (1) |
| 6-7    | -3094 / 0                 | -145.8                    | -145.8 0.12 (1)        | 5.15  | 16-6                      | -668 / 0               | 0.28 (1) |
| 7-8    | -2882 / 0                 | -77.3                     | -77.3 0.07 (1)         | 5.36  | 15-6                      | 0 / 98                 | 0.02 (3) |
| 8-9    | -2552 / 0                 | -77.3                     | -77.3 0.06 (1)         | 5.63  | 15-7                      | 0 / 1357               | 0.17 (1) |
| 19-2   | -1799 / 0                 | 0.0                       | 0.0 0.10 (1)           | 7.81  | 13-7                      | -163 / 48              | 0.03 (1) |
| 11-9   | -2507 / 0                 | 0.0                       | 0.0 0.14 (1)           | 7.14  | 13-8                      | 0 / 389                | 0.05 (1) |
|        |                           |                           |                        |       | 12-8                      | -727 / 0               | 0.08 (1) |
| 19-18  | 0 / 0                     | -17.5                     | -17.5 0.02 (1)         | 10.00 | 2-18                      | 0 / 1696               | 0.21 (1) |
| 18-17  | 0 / 1615                  | -17.5                     | -17.5 0.13 (1)         | 10.00 | 12-9                      | 0 / 2352               | 0.29 (1) |
| 17-16  | 0 / 1754                  | -17.5                     | -17.5 0.13 (1)         | 10.00 |                           |                        |          |
| 16-15  | 0 / 3094                  | -17.5                     | -17.5 0.24 (1)         | 10.00 |                           |                        |          |
| 15-14  | 0 / 2380                  | -33.0                     | -33.0 0.18 (1)         | 10.00 |                           |                        |          |
| 14-13  | 0 / 2380                  | -33.0                     | -33.0 0.18 (1)         | 10.00 |                           |                        |          |
| 13-12  | 0 / 2132                  | -33.0                     | -33.0 0.16 (1)         | 10.00 |                           |                        |          |
| 12-11  | 0 / 0                     | -33.0                     | -33.0 0.16 (1)         | 10.00 |                           |                        |          |
| 11-10  | 0 / 0                     | -33.0                     | -33.0 0.16 (1)         | 10.00 |                           |                        |          |

| FACTORED CONCENTRATED LOADS (LBS) |         |       |       |      |            |
|-----------------------------------|---------|-------|-------|------|------------|
| JT                                | LOC.    | LC1   | MAX-  | MAX+ | FACE DIR.  |
| 7                                 | 18-4-0  | -327  | -327  | ---  | FRONT VERT |
| 15                                | 15-2-12 | -1188 | -1188 | ---  | FRONT VERT |

**DESIGN CRITERIA**

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

| SPECIFIED LOADS:      |    |   |          |
|-----------------------|----|---|----------|
| TOP CH.               | LL | = | 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  
LEFT SETBACK = 6-0-0  
RIGHT SETBACK = 5-7-10  
END SETBACK = 6-0-0  
END WALL WIDTH = 5-8  
CORNER FRAMING TYPE: CONVENTIONAL  
END JACK TYPE: CONVENTIONAL  
APPLIED TO FRONT SIDE  
- ADDTL LOADS BASED ON 55 % OF GSL.  
LOADS APPLIED TO FIRST 8-8-14 OF SPAN MEASURED FROM THE RIGHT.

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 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 (0.80")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")  
ALLOWABLE DEFL.(TL)= L/360 (0.80")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.08")

CSI: TC=0.15 (5-6:1), BC=0.24 (15-16:1), WB=0.29 (9-12:1), SSI=0.79 (10-11:1)

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

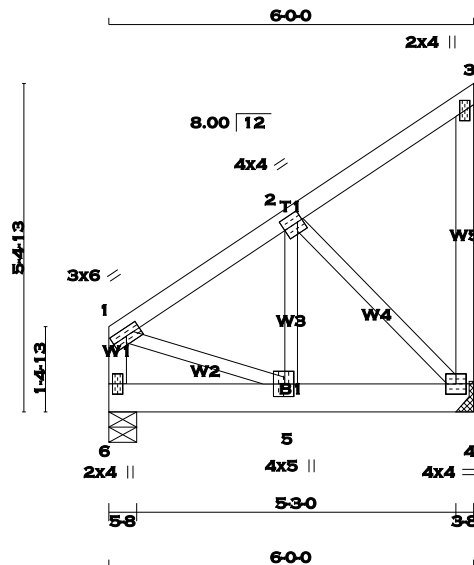
PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 0.250 degrees



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SCALE = 1:37.9

TOTAL WEIGHT = 33 lb [M]

| LUMBER                             |      |        |        |     | N. L. G. A. RULES                  |      |        |        |     |
|------------------------------------|------|--------|--------|-----|------------------------------------|------|--------|--------|-----|
| CHORDS                             | SIZE | LUMBER | DESCR. |     | CHORDS                             | SIZE | LUMBER | DESCR. |     |
| 6 - 1                              | 2x4  | DRY    | No.2   | SPF | 6 - 1                              | 2x4  | DRY    | No.2   | SPF |
| 1 - 3                              | 2x4  | DRY    | No.2   | SPF | 1 - 3                              | 2x4  | DRY    | No.2   | SPF |
| 4 - 3                              | 2x4  | DRY    | No.2   | SPF | 4 - 3                              | 2x4  | DRY    | No.2   | SPF |
| 6 - 4                              | 2x6  | DRY    | No.2   | SPF | 6 - 4                              | 2x6  | DRY    | No.2   | SPF |
| ALL WEBS 2x3 DRY: SEASONED LUMBER. |      |        |        |     | ALL WEBS 2x3 DRY: SEASONED LUMBER. |      |        |        |     |

| PLATES (table is in inches) |         |        |     |     |      |      |
|-----------------------------|---------|--------|-----|-----|------|------|
| JT                          | TYPE    | PLATES | W   | LEN | Y    | X    |
| 1                           | TMVW-t  | MT20   | 3.0 | 6.0 |      |      |
| 2                           | TMVW-t  | MT20   | 4.0 | 4.0 | 2.00 | 1.00 |
| 3                           | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 4                           | BMVW1-t | MT20   | 4.0 | 4.0 |      |      |
| 5                           | BMVW+t  | MT20   | 4.0 | 5.0 | 2.50 | 1.75 |
| 6                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MI TEK 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 | IN-SX     | IN-SX | IN-SX     | IN-SX                                |
| 6        |  | 1189                    | 0    | 1189                            | 0    | 0         | 5-8   | 5-8       |                                      |
| 4        |  | 1189                    | 0    | 1189                            | 0    | 0         |       |           | HANGER BY OTHERS MIN. SEAT SIZE: 3-8 |

#### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       | PERM. LIVE |       | WIND  |       | DEAD    |       | SOIL  |       |
|-----------|----------|-------------------------------|-------|------------|-------|-------|-------|---------|-------|-------|-------|
| JT        | COMBINED | SNOW                          | LIVE  | DOWN       | HORZ  | IN-SX | IN-SX | IN-SX   | IN-SX | IN-SX | IN-SX |
| 6         | 834      | 584 / 0                       | 0 / 0 | 0 / 0      | 0 / 0 | 0 / 0 | 0 / 0 | 251 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |
| 4         | 834      | 584 / 0                       | 0 / 0 | 0 / 0      | 0 / 0 | 0 / 0 | 0 / 0 | 251 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |

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

| CHORDS |  | FACTORED    |                  | MAX. FACTORED |          | MEMB. |     | FACTORED    |                  | MEMB.   |         | FACTORED |  | MEMB.       |                  | FACTORED |          |
|--------|--|-------------|------------------|---------------|----------|-------|-----|-------------|------------------|---------|---------|----------|--|-------------|------------------|----------|----------|
| FR-TO  |  | FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX       | LC1 MAX  | FR-TO |     | FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX | LC1 MAX | FR-TO    |  | FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX  | LC1 MAX  |
| 6-1    |  | -794 / 0    | 0.0              | 0.0           | 0.09 (1) | 7.81  | 1-5 | 0 / 741     | 0.18 (1)         |         |         | 6-5      |  | 0 / 0       | -318.8           | -318.8   | 0.18 (1) |
| 1-2    |  | -831 / 0    | -77.3            | -77.3         | 0.12 (1) | 6.25  | 5-2 | 0 / 889     | 0.22 (1)         |         |         | 5-4      |  | 0 / 703     | -318.8           | -318.8   | 0.28 (1) |
| 2-3    |  | -14 / 0     | -77.3            | -77.3         | 0.11 (1) | 6.25  | 2-4 | -994 / 0    | 0.29 (1)         |         |         |          |  |             |                  |          |          |
| 4-3    |  | -91 / 0     | 0.0              | 0.0           | 0.04 (1) | 7.81  |     |             |                  |         |         |          |  |             |                  |          |          |

#### 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 = 15-2-0  
END DISTANCE = 6-0-0  
END SPAN CARRIED = 15-2-0  
END WALL WIDTH = 5-8  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 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 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.20")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.12 (1-2:1), BC=0.28 (4-5:1), WB=0.29 (2-4:1), SSI=0.37 (5-6:1)

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) SHEAR SECTION  
(PSI) (PLI) (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.

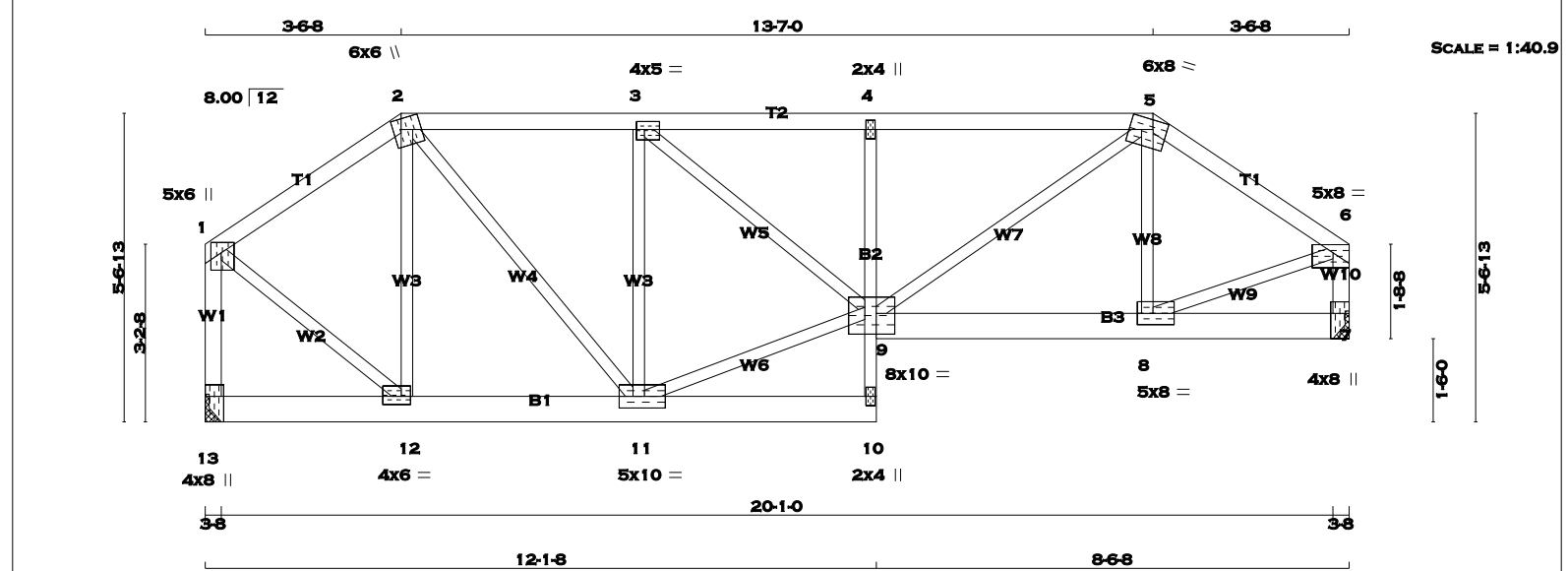
JSI GRIP= 0.89 (1) (INPUT = 0.90 )  
JSI METAL= 0.26 (4) (INPUT = 1.00 )



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





TOTAL WEIGHT = 2 X 105 = 210 lb [M]

| LUMBER            |      |        |        |
|-------------------|------|--------|--------|
| N. L. G. A. RULES |      |        |        |
| CHORDS            | SIZE | LUMBER | DESCR. |
| 1 - 2             | 2x4  | DRY    | No.2   |
| 2 - 5             | 2x4  | DRY    | No.2   |
| 5 - 6             | 2x4  | DRY    | No.2   |
| 13 - 1            | 2x4  | DRY    | No.2   |
| 7 - 6             | 2x4  | DRY    | No.2   |
| 13 - 10           | 2x6  | DRY    | No.2   |
| 10 - 4            | 2x3  | DRY    | No.2   |
| 9 - 7             | 2x6  | DRY    | No.2   |

ALL WEBS 2x3 DRY No.2 SPF  
EXCEPT

DRY: SEASONED LUMBER.

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

| CHORDS #ROWS                             | SURFACE SPACING (IN) | LOAD(PLF)   |
|------------------------------------------|----------------------|-------------|
| TOP CHORDS : (0.122"x3") SPIRAL NAILS    |                      |             |
| 1-2                                      | 12                   | TOP         |
| 2-5                                      | 12                   | TOP         |
| 5-6                                      | 12                   | TOP         |
| 13-1                                     | 12                   | TOP         |
| 7-6                                      | 12                   | TOP         |
| BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS |                      |             |
| 13-10                                    | 12                   | SIDE(204.6) |
| 9-7                                      | 12                   | SIDE(204.6) |
| 10-4                                     | 12                   | TOP         |
| WEBS : (0.122"x3") SPIRAL NAILS          |                      |             |
| 2x3                                      | 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+p | MT20   | 5.0 | 6.0 | 2.25 2.25 |
| 2                           | TTVW+m | MT20   | 6.0 | 6.0 | 2.25 1.75 |
| 3                           | TMVW-t | MT20   | 4.0 | 5.0 | 1.75 1.75 |
| 4                           | TMV+p  | MT20   | 2.0 | 4.0 |           |

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

| BEARINGS |      | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----------|------|-------------------------|---------------------------------|-----------|-----------|
| JT       | VERT | HORZ                    | DOWN                            | HORZ      | UPLIFT    |
| 13       | 5209 | 0                       | 5209                            | 0         | 0         |
| 7        | 5209 | 0                       | 5209                            | 0         | 0         |

| UNFACTORED REACTIONS |           |          |       |       |           |       |          |
|----------------------|-----------|----------|-------|-------|-----------|-------|----------|
| JT                   | 1ST LCASE | MAX/MIN. | SNOW  | LIVE  | PERM.LIVE | WIND  | DEAD     |
| 13                   | 3656      | 2557 / 0 | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 1098 / 0 |
| 7                    | 3656      | 2557 / 0 | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 1098 / 0 |

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.41 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: (3) |                      |                           |              |
|---------|----------------------|---------------------------|-----------------|-----------------------|----------------------|---------------------------|--------------|
| CHORDS  |                      | WEBS                      |                 | CHORDS                |                      | WEBS                      |              |
| MEMB.   | FACTORED FORCE (LBS) | FACTORED VERT. LOAD (LBS) | MAX LC1 (LC)    | MEMB.                 | FACTORED FORCE (LBS) | FACTORED VERT. LOAD (LBS) | MAX LC1 (LC) |
| FR-TO   |                      | FROM                      | TO              | FR-TO                 |                      | FROM                      | TO           |
| 1-2     | -3731 / 0            | -77.3                     | -77.3 0.15 (1)  | 4.77                  | 12-2                 | -559 / 0                  | 0.13 (1)     |
| 2-3     | -5027 / 0            | -77.3                     | -77.3 0.20 (1)  | 4.16                  | 2-11                 | 0 / 3040                  | 0.38 (1)     |
| 3-4     | -7106 / 0            | -77.3                     | -77.3 0.28 (1)  | 3.50                  | 11-3                 | -2166 / 0                 | 0.49 (1)     |
| 4-5     | -7124 / 0            | -77.3                     | -77.3 0.39 (1)  | 3.41                  | 11-9                 | 0 / 5295                  | 0.66 (1)     |
| 5-6     | -5338 / 0            | -77.3                     | -77.3 0.20 (1)  | 4.05                  | 3-9                  | 0 / 2772                  | 0.34 (1)     |
| 13-1    | -4597 / 0            | 0.0                       | 0.0 0.40 (1)    | 5.57                  | 9-5                  | 0 / 3291                  | 0.41 (1)     |
| 7-6     | -4694 / 0            | 0.0                       | 0.0 0.27 (1)    | 5.52                  | 8-5                  | 0 / 717                   | 0.09 (1)     |
|         |                      |                           |                 |                       | 1-12                 | 0 / 3908                  | 0.48 (1)     |
| 13-12   | 0 / 0                | -426.8                    | -426.8 0.22 (1) | 10.00                 | 8-6                  | 0 / 4708                  | 0.58 (1)     |
| 12-11   | 0 / 3087             | -426.8                    | -426.8 0.45 (1) | 10.00                 |                      |                           |              |
| 11-10   | 0 / 43               | -426.8                    | -426.8 0.25 (1) | 10.00                 |                      |                           |              |
| 10-9    | 0 / 735              | 0.0                       | 0.0 0.18 (1)    | 10.00                 |                      |                           |              |
| 9-4     | -362 / 0             | 0.0                       | 0.0 0.10 (1)    | 7.81                  |                      |                           |              |
| 9-8     | 0 / 4454             | -426.8                    | -426.8 0.64 (1) | 10.00                 |                      |                           |              |
| 8-7     | 0 / 0                | -426.8                    | -426.8 0.35 (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**

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

GIRDER TYPE: CStdGirder  
START DISTANCE = 0-0  
START SPAN CARRIED = 19-8-10  
END DISTANCE = 20-8-0  
END SPAN CARRIED = 19-8-10  
END WALL WIDTH = 5-8  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 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 (0.69")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.12")  
ALLOWABLE DEFL.(TL)= L/360 (0.69")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.21")

CSI: TC=0.40 (1-13:1), BC=0.64 (8-9:1), WB=0.66 (9-11:1), SSI=0.42 (8-9:1)

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) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

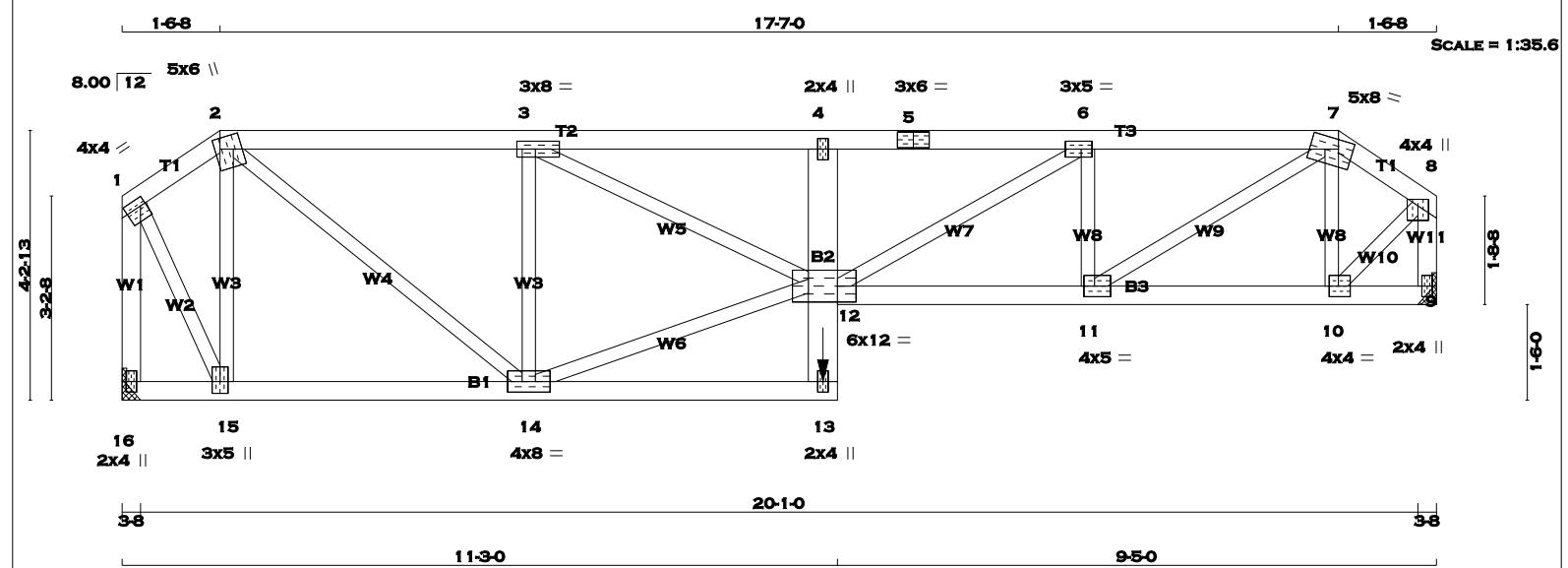
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (6) (INPUT = 0.90 )  
JSI METAL= 0.45 (5) (INPUT = 1.00 )

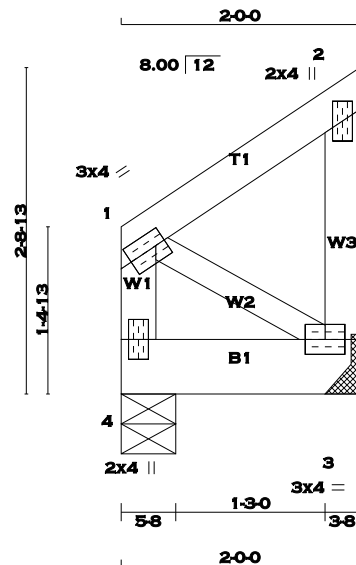


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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| TOTAL WEIGHT = 92 lb                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  | [M]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |  |  |
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  |  | <b>DESIGN CRITERIA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  |  |
| 1 - 2 2x4 DRY No.2 SPF<br>2 - 5 2x4 DRY No.2 SPF<br>5 - 7 2x4 DRY No.2 SPF<br>7 - 8 2x4 DRY No.2 SPF<br>16- 1 2x4 DRY No.2 SPF<br>9 - 8 2x4 DRY No.2 SPF<br>16- 13 2x4 DRY No.2 SPF<br>13- 4 2x6 DRY No.2 SPF<br>12- 9 2x4 DRY No.2 SPF                                                                                                                                                                                                                                                                                                                                                    |  |  |  |  | <b>BEARINGS</b><br>FACTORED GROSS REACTION<br>JT VERT HORZ<br>16 1108 0<br>9 1127 0<br>MAXIMUM FACTORED GROSS REACTION<br>DOWN HORZ UPLIFT<br>1108 0 0<br>HANGER BY OTHERS<br>MIN. SEAT SIZE: 3-8<br>HANGER BY OTHERS<br>MIN. SEAT SIZE: 3-8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  | *** SPECIAL LOADS ANALYSIS ***<br>GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.<br>LOADS WERE DERIVED FROM USER INPUT<br>NO FURTHER MODIFICATIONS WERE MADE<br><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |  |  |
| ALL WEBS 2x3 DRY No.2 SPF<br>EXCEPT<br><br>DRY: SEASONED LUMBER.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |  |  | <b>UNFACTORED REACTIONS</b><br>1ST LCASE MAX./MIN. COMPONENT REACTIONS<br>JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL<br>16 778 544 / 0 0 / 0 0 / 0 0 / 0 234 / 0 0 / 0<br>9 791 553 / 0 0 / 0 0 / 0 0 / 0 238 / 0 0 / 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |  |  | <b>SPACING = 24.0 IN. C/C</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |
| <b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.89 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.                                                                                                                                                                                                                                                                                                                                          |  |  |  |  | <b>LOADING</b><br>TOTAL LOAD CASES: (3)<br><br>CHORDS WEBS<br>MAX. FACTORED FORCE (LBS) FACTORED VERT. LOAD (PLF) MAX. LC1 (LC) MAX. UNBRAC LENGTH FR-TO MAX. MEMB. FORCE (LBS) MAX. FACTORED FORCE (LBS) MAX. LC1 (LC)<br>FR-TO FROM TO<br>1-2 -522 / 0 -77.3 -77.3 0.04 (1) 6.25 15-2 -687 / 0 0.19 (1)<br>2-3 -1361 / 0 -77.3 -77.3 0.33 (1) 5.15 2-14 0 / 1218 0.30 (1)<br>3-4 -2538 / 0 -77.3 -77.3 0.42 (1) 3.89 14-3 -1047 / 0 0.30 (1)<br>4-5 -2672 / 0 -77.3 -77.3 0.30 (1) 3.94 14-12 0 / 1202 0.30 (1)<br>5-6 -2672 / 0 -77.3 -77.3 0.30 (1) 3.94 3-12 0 / 1331 0.33 (1)<br>6-7 -1994 / 0 -77.3 -77.3 0.24 (1) 4.52 12-6 0 / 786 0.19 (1)<br>7-8 -851 / 0 -77.3 -77.3 0.04 (1) 6.25 11-6 -744 / 0 0.13 (1)<br>16-1 -1111 / 0 0.0 0.0 0.21 (1) 7.48 11-7 0 / 1541 0.38 (1)<br>9-8 -1130 / 0 0.0 0.0 0.13 (1) 7.43 10-7 -522 / 0 0.09 (1)<br>1-15 0 / 873 0.22 (1)<br>10-8 0 / 922 0.23 (1)<br>16-15 0 / 0 -17.5 -17.5 0.06 (3) 10.00<br>15-14 0 / 414 -17.5 -17.5 0.14 (3) 10.00<br>14-13 0 / 218 -17.5 -17.5 0.12 (3) 10.00<br>13-12 0 / 309 0.0 0.0 0.28 (1) 10.00<br>12-4 -305 / 0 0.0 0.0 0.24 (1) 7.81<br>12-11 0 / 1994 -17.5 -17.5 0.41 (1) 10.00<br>11-10 0 / 683 -17.5 -17.5 0.16 (1) 10.00<br>10-9 0 / 0 -17.5 -17.5 0.04 (3) 10.00 |  |  |  |  | *** NON STANDARD GIRDER ***<br>ADDT'L USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.<br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>(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<br><br>ALLOWABLE DEFL.(LL)= L/360 (0.69")<br>CALCULATED VERT. DEFL.(LL)= L/ 999 (0.11")<br>ALLOWABLE DEFL.(TL)= L/360 (0.69")<br>CALCULATED VERT. DEFL.(TL)= L/ 999 (0.19")<br><br>CSI: TC=0.42 (3-4:1), BC=0.41 (11-12:1), WB=0.38 (7-11:1), SSI=0.19 (2-3:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS= 1.00<br><br>COMPANION LIVE LOAD FACTOR = 0.50 |  |  |  |  |
| <b>PLATES (table is in inches)</b><br>JT TYPE PLATES W LEN Y X<br>1 TMVW-t MT20 4.0 4.0 1.50 1.00<br>2 TTWW+m MT20 5.0 6.0 2.00 1.00<br>3 TMWW-t MT20 3.0 8.0 1.50 3.50<br>4 TMV+p MT20 2.0 4.0<br>5 TS-t MT20 3.0 6.0<br>6 TMWW-t MT20 3.0 5.0 1.50 2.00<br>7 TTWW-m MT20 5.0 8.0 1.75 2.75<br>8 TMWW+p MT20 4.0 4.0 1.25 2.00<br>9 BMV1+p MT20 2.0 4.0<br>10 BMWW-t MT20 4.0 4.0 2.00 1.75<br>11 BMWW-t MT20 4.0 5.0 2.00 2.00<br>12 BYMWWW-I MT20 6.0 12.0 3.00 3.50<br>13 BMV+p MT20 2.0 4.0<br>14 BMWWW-t MT20 4.0 8.0<br>15 BMWWW-t MT20 3.0 5.0 2.25 1.50<br>16 BMV1+p MT20 2.0 4.0 |  |  |  |  | <b>FACTORED CONCENTRATED LOADS (LBS)</b><br>JT LOC. LC1 MAX- MAX+ FACE DIR. TYPE<br>13 11-0-4 -275 -275 --- FRONT VERT TOTAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  | TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  |  |
| A SIZE FOR SIZE SUBSTITUTION OF MITEK MI20 WITH TEE-LOK TL20 PLATES IS ALLOWED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |  |
| <b>HANGERS NOTES</b><br>1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 275.0 lbs FACTORED DOWN AT 11-0-4 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.                                                                                                                                                                                                                                                                                                                                                      |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |  |



SCALE = 1:19.3

TOTAL WEIGHT = 11 lb [M]

| LUMBER                    |        |      |        |  | DESCR. |
|---------------------------|--------|------|--------|--|--------|
| N. L. G. A. RULES         | CHORDS | SIZE | LUMBER |  |        |
| 4 - 1                     | 2x4    | DRY  | No.2   |  | SPF    |
| 1 - 2                     | 2x4    | DRY  | No.2   |  | SPF    |
| 4 - 3                     | 2x6    | DRY  | No.2   |  | SPF    |
| ALL WEBS 2x4 DRY No.2     |        |      |        |  | SPF    |
| EXCEPT 1 - 3 2x3 DRY No.2 |        |      |        |  | SPF    |
| DRY: SEASONED LUMBER.     |        |      |        |  |        |

| PLATES (table is in inches) |         |        |     |     |           |
|-----------------------------|---------|--------|-----|-----|-----------|
| JT                          | TYPE    | PLATES | W   | LEN | Y X       |
| 1                           | TMW-t   | MT20   | 3.0 | 4.0 | 1.50 1.00 |
| 2                           | TMW+w   | MT20   | 2.0 | 4.0 |           |
| 3                           | BMWW1-t | MT20   | 3.0 | 4.0 |           |
| 4                           | BMV1+p  | MT20   | 2.0 | 4.0 |           |

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

| FACTORED       |      |      | MAXIMUM FACTORED |      |        | INPUT            | REQRD               |
|----------------|------|------|------------------|------|--------|------------------|---------------------|
| GROSS REACTION |      |      | GROSS REACTION   |      |        | BRG              | BRG                 |
| JT             | VERT | HORZ | DOWN             | HORZ | UPLIFT | IN-SX            | IN-SX               |
| 4              | 281  | 0    | 281              | 0    | 0      | 5-8              | 5-8                 |
| 3              | 275  | 0    | 275              | 0    | 0      | HANGER BY OTHERS |                     |
|                |      |      |                  |      |        |                  | MIN. SEAT SIZE: 3-8 |

#### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |        |       |  |
|-----------|----------|-------------------------------|-------|-----------|-------|--------|-------|--|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |  |
| 4         | 197      | 138 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 59 / 0 | 0 / 0 |  |
| 3         | 193      | 134 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 59 / 0 | 0 / 0 |  |

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

| CHORDS |             | FACTORED         |         |                      |       | WEBS  |             | FACTORED             |       |
|--------|-------------|------------------|---------|----------------------|-------|-------|-------------|----------------------|-------|
| MEMB.  | FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX | MAX. UNBRACED LENGTH | FR-TO | MEMB. | FORCE (LBS) | MAX. UNBRACED LENGTH | FR-TO |
| 4-1    | -72 / 0     | 0.0              | 0.0     | 0.01 (1)             | 7.81  | 3-2   | -67 / 0     | 0.01 (1)             |       |
| 1-2    | -3 / 0      | -77.3            | -77.3   | 0.05 (1)             | 10.00 | 1-3   | 0 / 3       | 0.00 (1)             |       |
| 4-3    | 0 / 0       | -226.0           | -226.0  | 0.07 (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 = 11-3-0  
END DISTANCE = 2-0-0  
END SPAN CARRIED = 11-3-0  
END WALL WIDTH = 5-8  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 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 (0.19")  
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=0.05 (1-2:1) , BC=0.07 (3-4:1) , WB=0.01 (2-3:1) , SSI=0.14 (3-4:1)

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) SHEAR SECTION  
(PSI) (PLI) (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.

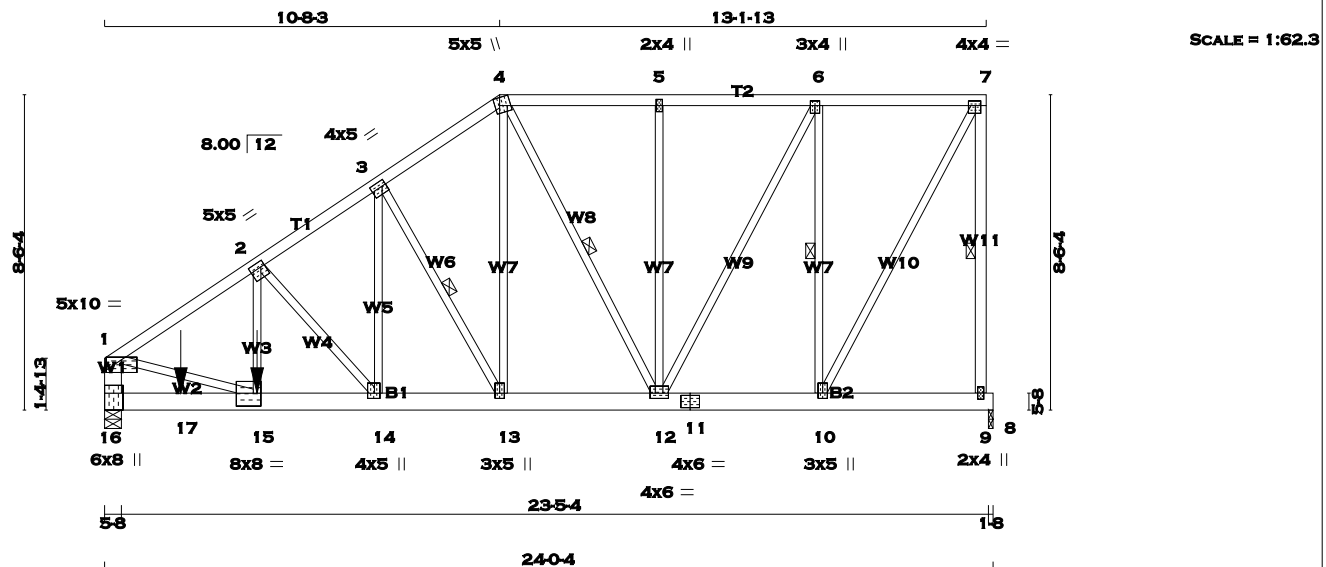
JSI GRIP= 0.07 (3) (INPUT = 0.90 )  
JSI METAL= 0.02 (2) (INPUT = 1.00 )

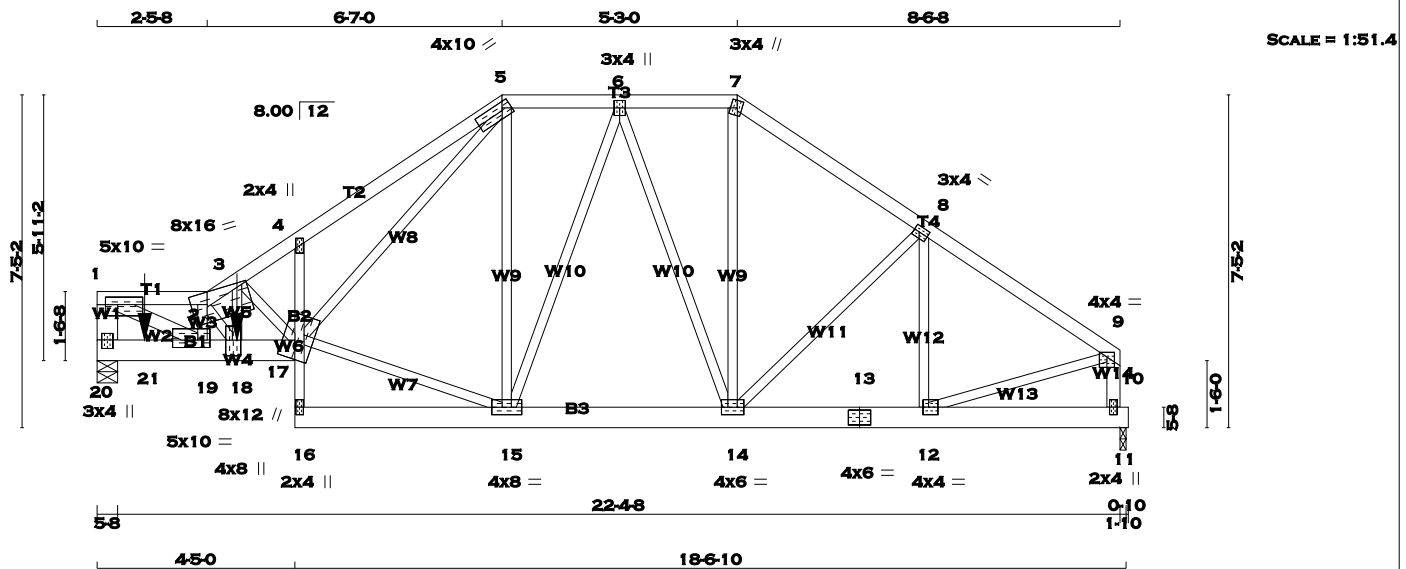


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READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.







TOTAL WEIGHT = 2 X 126 = 252 lb

| LUMBER             |      |     | N. L. G. A. RULES |        |
|--------------------|------|-----|-------------------|--------|
| CHORDS             | SIZE |     | LUMBER            | DESCR. |
| 20 - 1             | 2x6  | DRY | No.2              | SPF    |
| 1 - 2              | 2x4  | DRY | No.2              | SPF    |
| 2 - 5              | 2x4  | DRY | No.2              | SPF    |
| 5 - 7              | 2x4  | DRY | No.2              | SPF    |
| 7 - 9              | 2x4  | DRY | No.2              | SPF    |
| 11 - 9             | 2x4  | DRY | No.2              | SPF    |
| 20 - 17            | 2x6  | DRY | 2100F 1.8E        | SPF    |
| 16 - 4             | 2x3  | DRY | No.2              | SPF    |
| 16 - 13            | 2x6  | DRY | No.2              | SPF    |
| 13 - 10            | 2x6  | DRY | No.2              | SPF    |
| ALL WEBS<br>EXCEPT | 2x3  | DRY | No.2              | SPF    |
| 1 - 19             | 2x4  | DRY | 1650F 1.5E        | SPF    |

DRY: SEASONED LUMBER.

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

| CHORDS #ROWS                             | SURFACE<br>SPACING (IN) | LOAD(PLF) |
|------------------------------------------|-------------------------|-----------|
| TOP CHORDS : (0.122"x3") SPIRAL NAILS    |                         |           |
| 20- 1                                    | 2                       | 12        |
| 1- 2                                     | 1                       | 12        |
| 2- 5                                     | 1                       | 12        |
| 5- 7                                     | 1                       | 12        |
| 7- 9                                     | 1                       | 12        |
| 11- 9                                    | 1                       | 12        |
| BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS |                         |           |
| 20- 17                                   | 2                       | 12        |
| 16- 13                                   | 2                       | 12        |
| 13- 10                                   | 2                       | 12        |
| 4- 16                                    | 1                       | 12        |
| WEBS : (0.122"x3") SPIRAL NAILS          |                         |           |
| 2x3                                      | 1                       | 6         |
| 2x4                                      | 1                       | 6         |

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

| JT | FACTORED<br>GROSS REACTION |      | MAXIMUM FACTORED<br>GROSS REACTION |      |        | INPUT<br>BRG | REQRD<br>BRG |
|----|----------------------------|------|------------------------------------|------|--------|--------------|--------------|
|    | VERT                       | HORZ | DOWN                               | HORZ | UPLIFT | IN-SX        | IN-SX        |
| 20 | 6654                       | 0    | 6654                               | 0    | 0      | 5-8          | 5-8          |
| 11 | 1853                       | 0    | 1853                               | 0    | 0      | 1-10         | 1-10         |

### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS |       |           |       |          |       |
|----|-----------|-------------------------------|-------|-----------|-------|----------|-------|
|    | COMBINED  | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD     | SOIL  |
| 20 | 4670      | 3267 / 0                      | 0 / 0 | 0 / 0     | 0 / 0 | 1403 / 0 | 0 / 0 |
| 11 | 1301      | 907 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 393 / 0  | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 20, 11

## BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.46 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: (3)**

| CHORDS |                           |                           |                  |             | WEBS  |                           |                       |          |  |
|--------|---------------------------|---------------------------|------------------|-------------|-------|---------------------------|-----------------------|----------|--|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MAX. UNBRAC | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED MAX CSI (LC) |          |  |
| FR-TO  |                           | FROM TO                   |                  | LENGTH      | FR-TO |                           |                       |          |  |
| 20-1   | -5474 / 0                 | 0.0                       | 0.0              | 0.19 (1)    | 6.27  | 19-2                      | -4643 / 0             | 0.36 (1) |  |
| 1-2    | -11004 / 0                | -77.3                     | -77.3            | 0.43 (1)    | 2.64  | 18-3                      | 0 / 5175              | 0.64 (1) |  |
| 2-3    | -12122 / 0                | -77.3                     | -77.3            | 0.45 (1)    | 2.46  | 2-18                      | -2475 / 0             | 0.19 (1) |  |
| 3-4    | -8585 / 0                 | -77.3                     | -77.3            | 0.26 (1)    | 3.19  | 3-17                      | -4603 / 0             | 0.38 (1) |  |
| 4-5    | -8496 / 0                 | -77.3                     | -77.3            | 0.55 (1)    | 3.03  | 15-5                      | -1295 / 0             | 0.61 (1) |  |
| 5-6    | -2351 / 0                 | -77.3                     | -77.3            | 0.07 (1)    | 5.80  | 17-5                      | 0 / 7421              | 0.92 (1) |  |
| 6-7    | -1766 / 0                 | -77.3                     | -77.3            | 0.06 (1)    | 6.25  | 1-19                      | 0 / 12277             | 0.79 (1) |  |
| 7-8    | -2130 / 0                 | -77.3                     | -77.3            | 0.14 (1)    | 5.93  | 17-15                     | 0 / 2377              | 0.29 (1) |  |
| 8-9    | -2050 / 0                 | -77.3                     | -77.3            | 0.14 (1)    | 6.01  | 15-6                      | 0 / 747               | 0.09 (1) |  |
| 11-9   | -1805 / 0                 | 0.0                       | 0.0              | 0.10 (1)    | 7.81  | 6-14                      | -989 / 0              | 0.55 (1) |  |
|        |                           |                           |                  |             |       | 14-7                      | 0 / 964               | 0.12 (1) |  |
| 20-21  | 0 / 0                     | -17.5                     | -17.5            | 0.25 (1)    | 10.00 | 14-8                      | 0 / 42                | 0.01 (1) |  |
| 21-19  | 0 / 0                     | -17.5                     | -17.5            | 0.25 (1)    | 10.00 | 12-8                      | -460 / 0              | 0.07 (1) |  |
| 19-18  | 0 / 11423                 | -17.5                     | -17.5            | 0.68 (1)    | 10.00 | 12-9                      | 0 / 1800              | 0.22 (1) |  |
| 18-17  | 0 / 10182                 | -17.5                     | -17.5            | 0.65 (1)    | 10.00 |                           |                       |          |  |
| 16-17  | 0 / 29                    | 0.0                       | 0.0              | 0.24 (1)    | 10.00 |                           |                       |          |  |
| 17-4   | -178 / 21                 | 0.0                       | 0.0              | 0.24 (1)    | 7.81  |                           |                       |          |  |
| 16-15  | 0 / 108                   | -17.5                     | -17.5            | 0.06 (1)    | 10.00 |                           |                       |          |  |
| 15-14  | 0 / 2099                  | -17.5                     | -17.5            | 0.19 (1)    | 10.00 |                           |                       |          |  |
| 14-13  | 0 / 1722                  | -17.5                     | -17.5            | 0.13 (1)    | 10.00 |                           |                       |          |  |
| 13-12  | 0 / 1722                  | -17.5                     | -17.5            | 0.13 (1)    | 10.00 |                           |                       |          |  |
| 12-11  | 0 / 0                     | -17.5                     | -17.5            | 0.02 (3)    | 10.00 |                           |                       |          |  |
| 11-10  | 0 / 0                     | -25.0                     | -25.0            | 0.00 (3)    | 10.00 |                           |                       |          |  |

| FACTORED CONCENTRATED LOADS (LBS) |        |       |       |      |       |      |       |
|-----------------------------------|--------|-------|-------|------|-------|------|-------|
| JT                                | LOC.   | LC1   | MAX-  | MAX+ | FACE  | DIR. | TYPE  |
| 18                                | 3-1-8  | -5209 | -5209 | ---  | FRONT | VERT | TOTAL |
| 21                                | 1-0-12 | -1127 | -1127 | ---  | FRONT | VERT | TOTAL |



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**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.**

### DESIGN CRITERIA

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

SPECIFIED LOADS:

|            |     |      |      |     |
|------------|-----|------|------|-----|
| TOP        | CH. | LL = | 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 ALL FLAT SECTIONS BASED ON A  
SLOPE OF 6.00/12

\*\*\* NON STANDARD GIRDER \*\*\*  
ADD'T'L USER-DEFINED LOADS APPLIED TO  
ALL LOAD CASES.

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 (0.76")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.17")  
ALLOWABLE DEFL.(TL)= L/360 (0.76")  
CALCULATED VERT. DEFL.(TL) = L/ 926 (0.30")

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

CSI: TC=0.55 (4-5:1) , BC=0.68 (18-19:1) ,  
WB=0.92 (5-17:1) , SSI=0.46 (17-18:1)

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

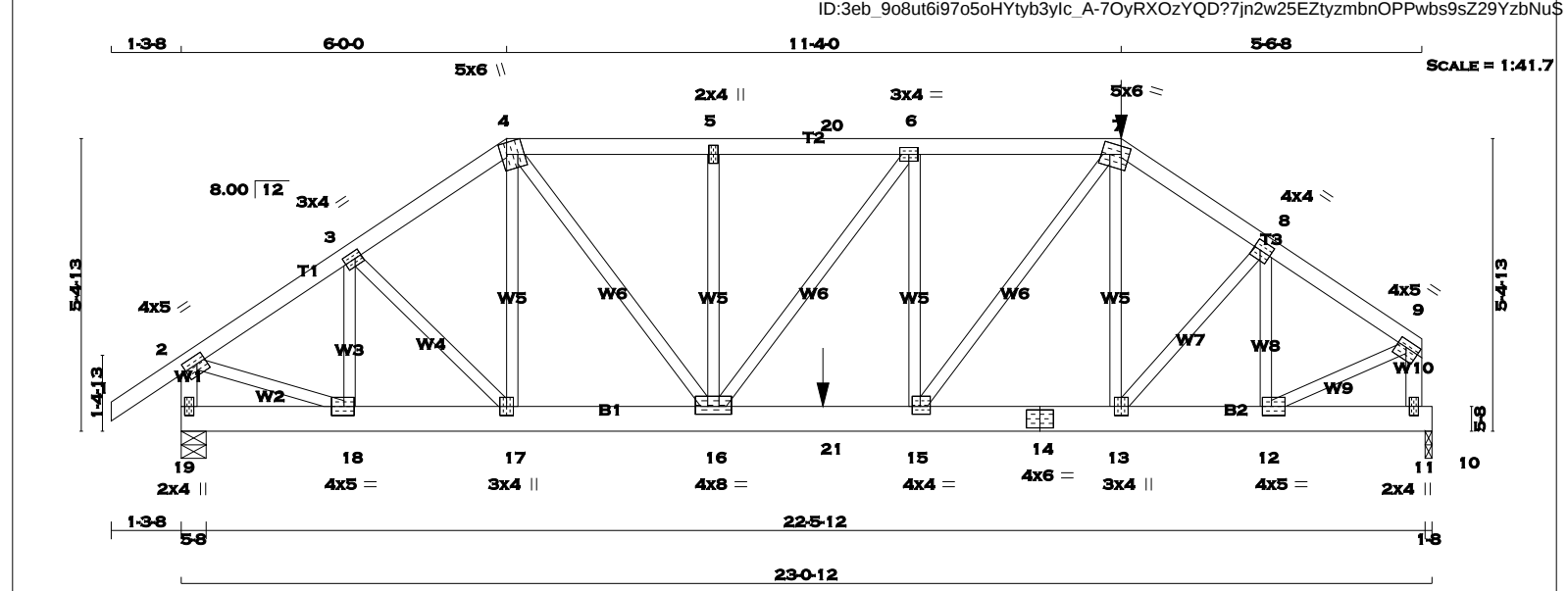
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

| NAIL VALUES |                    |     |                |     |                  |
|-------------|--------------------|-----|----------------|-----|------------------|
| PLATE       | GRIP(DRY)<br>(PSI) |     | SHEAR<br>(PLI) |     | SECTION<br>(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.

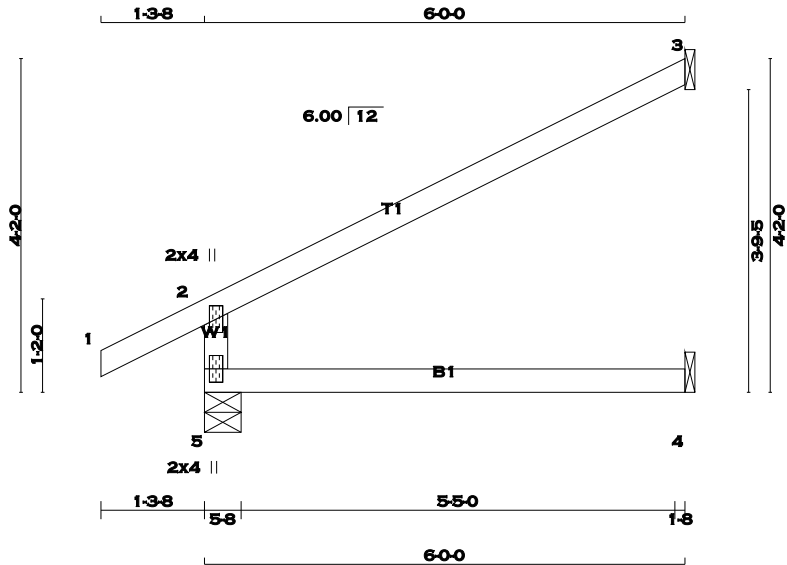
JSI GRIP= 0.89 (19) (INPUT = 0.90 )  
JSI METAL= 0.86 (19) (INPUT = 1.00 )



|                                                                                                                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|-----------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|----------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|
| LUMBER                                                                                                                                                                                               |  |  |  |  |  |  |  |  |  | DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER |  |  |  |  |  |  |  |  |  | DESIGN CRITERIA                                                                                    |  |  |  |  |  |  |  |  |  |
| N. L. G. A. RULES                                                                                                                                                                                    |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
| CHORDS SIZE LUMBER DESCR.                                                                                                                                                                            |  |  |  |  |  |  |  |  |  | BEARINGS                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                      |  |  |  |  |  |  |  |  |  | FACTORED GROSS REACTION                                                                       |  |  |  |  |  |  |  |  |  | *** SPECIAL LOADS ANALYSIS ***                                                                     |  |  |  |  |  |  |  |  |  |
| 1 - 4 2x4 DRY No.2 SPF                                                                                                                                                                               |  |  |  |  |  |  |  |  |  | MAXIMUM FACTORED GROSS REACTION                                                               |  |  |  |  |  |  |  |  |  | GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.                                                       |  |  |  |  |  |  |  |  |  |
| 4 - 7 2x4 DRY No.2 SPF                                                                                                                                                                               |  |  |  |  |  |  |  |  |  | INPUT BRG                                                                                     |  |  |  |  |  |  |  |  |  | LOADS WERE DERIVED FROM USER INPUT                                                                 |  |  |  |  |  |  |  |  |  |
| 7 - 9 2x4 DRY No.2 SPF                                                                                                                                                                               |  |  |  |  |  |  |  |  |  | REQRD BRG                                                                                     |  |  |  |  |  |  |  |  |  | NO FURTHER MODIFICATIONS WERE MADE                                                                 |  |  |  |  |  |  |  |  |  |
| 19 - 2 2x4 DRY No.2 SPF                                                                                                                                                                              |  |  |  |  |  |  |  |  |  | DOWN HORZ UPLIFT IN-SX IN-SX                                                                  |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
| 11 - 9 2x4 DRY No.2 SPF                                                                                                                                                                              |  |  |  |  |  |  |  |  |  | 19 2422 0 2422 0 0 5-8 5-8                                                                    |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
| 19 - 14 2x6 DRY No.2 SPF                                                                                                                                                                             |  |  |  |  |  |  |  |  |  | 10 2732 0 2732 0 0 1-8 1-8                                                                    |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
| 14 - 10 2x6 DRY No.2 SPF                                                                                                                                                                             |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
| ALL WEBS 2x3 DRY No.2 SPF                                                                                                                                                                            |  |  |  |  |  |  |  |  |  | UNFACTORED REACTIONS                                                                          |  |  |  |  |  |  |  |  |  | SPECIFIED LOADS:                                                                                   |  |  |  |  |  |  |  |  |  |
| EXCEPT                                                                                                                                                                                               |  |  |  |  |  |  |  |  |  | 1ST LCASE MAX./MIN. COMPONENT REACTIONS                                                       |  |  |  |  |  |  |  |  |  | TOP CH. LL = 23.3 PSF                                                                              |  |  |  |  |  |  |  |  |  |
| DRY: SEASONED LUMBER.                                                                                                                                                                                |  |  |  |  |  |  |  |  |  | JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL                                                |  |  |  |  |  |  |  |  |  | DL = 3.0 PSF                                                                                       |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                      |  |  |  |  |  |  |  |  |  | 19 1697 1205 / 0 0 / 0 0 / 0 0 / 0 492 / 0 0 / 0                                              |  |  |  |  |  |  |  |  |  | BOT CH. LL = 0.0 PSF                                                                               |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                      |  |  |  |  |  |  |  |  |  | 10 1919 1329 / 0 0 / 0 0 / 0 0 / 0 590 / 0 0 / 0                                              |  |  |  |  |  |  |  |  |  | DL = 7.0 PSF                                                                                       |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  | TOTAL LOAD = 33.3 PSF                                                                              |  |  |  |  |  |  |  |  |  |
| DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:                                                                                                                     |  |  |  |  |  |  |  |  |  | BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 19, 10                                  |  |  |  |  |  |  |  |  |  | SPACING = 24.0 IN. C/C                                                                             |  |  |  |  |  |  |  |  |  |
| CHORDS #ROWS SURFACE SPACING (IN) LOAD(PLF)                                                                                                                                                          |  |  |  |  |  |  |  |  |  | BRACING                                                                                       |  |  |  |  |  |  |  |  |  | LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12                                                |  |  |  |  |  |  |  |  |  |
| TOP CHORDS : (0.122"x3") SPIRAL NAILS                                                                                                                                                                |  |  |  |  |  |  |  |  |  | TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.56 FT.                                    |  |  |  |  |  |  |  |  |  | GIRDER TYPE: CPrimeHip                                                                             |  |  |  |  |  |  |  |  |  |
| 1-4 1 12 TOP                                                                                                                                                                                         |  |  |  |  |  |  |  |  |  | MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.              |  |  |  |  |  |  |  |  |  | LEFT SETBACK = 6-0-0                                                                               |  |  |  |  |  |  |  |  |  |
| 4-7 1 12 SIDE(34.2)                                                                                                                                                                                  |  |  |  |  |  |  |  |  |  | ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.                    |  |  |  |  |  |  |  |  |  | RIGHT SETBACK = 5-8-12                                                                             |  |  |  |  |  |  |  |  |  |
| 7-9 1 12 SIDE(0.0)                                                                                                                                                                                   |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  | END SETBACK = 6-0-0                                                                                |  |  |  |  |  |  |  |  |  |
| 19-2 1 12 TOP                                                                                                                                                                                        |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  | END WALL WIDTH = 5-8                                                                               |  |  |  |  |  |  |  |  |  |
| 11-9 1 12 TOP                                                                                                                                                                                        |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  | CORNER FRAMING TYPE: CONVENTIONAL                                                                  |  |  |  |  |  |  |  |  |  |
| BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS                                                                                                                                                             |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  | END JACK TYPE: CONVENTIONAL                                                                        |  |  |  |  |  |  |  |  |  |
| 19-14 2 12 SIDE(8.7)                                                                                                                                                                                 |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  | APPLIED TO FRONT SIDE                                                                              |  |  |  |  |  |  |  |  |  |
| 14-10 2 12 SIDE(8.7)                                                                                                                                                                                 |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  | - ADDTL LOADS BASED ON 55 % OF GSL.                                                                |  |  |  |  |  |  |  |  |  |
| WEBS : (0.122"x3") SPIRAL NAILS                                                                                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  | LOADS APPLIED TO FIRST 11-1-4 OF SPAN                                                              |  |  |  |  |  |  |  |  |  |
| 2x3 1 6                                                                                                                                                                                              |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  | MEASURED FROM THE RIGHT.                                                                           |  |  |  |  |  |  |  |  |  |
| NAILS TO BE DRIVEN FROM ONE SIDE ONLY.                                                                                                                                                               |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  | *** NON STANDARD GIRDER ***                                                                        |  |  |  |  |  |  |  |  |  |
| GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS.                                                                                                                         |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  | ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.                                                |  |  |  |  |  |  |  |  |  |
| 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.                                                                     |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  | THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010         |  |  |  |  |  |  |  |  |  |
| 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. |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  | THIS DESIGN COMPLIES WITH:                                                                         |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  | - PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014                                                        |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  | - CSA 086-09                                                                                       |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  | - TPIC 2011                                                                                        |  |  |  |  |  |  |  |  |  |
| PLATES (table is in inches)                                                                                                                                                                          |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  | (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 |  |  |  |  |  |  |  |  |  |
| JT TYPE PLATES W LEN Y X                                                                                                                                                                             |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  |                                                                                                    |  |  |  |  |  |  |  |  |  |
| 2 TMWV-t MT20 4.0 5.0 1.75 2.00                                                                                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  | ALLOWABLE DEFL.(LL)= L/360 (0.77")                                                                 |  |  |  |  |  |  |  |  |  |
| 3 TMWV-t MT20 3.0 4.0 1.50 1.50                                                                                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  | CALCULATED VERT. DEFL.(LL) = L/ 999 (0.07")                                                        |  |  |  |  |  |  |  |  |  |
| 4 TTWW+m MT20 5.0 6.0 Edge 3.75                                                                                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  | ALLOWABLE DEFL.(TL)= L/360 (0.77")                                                                 |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                      |  |  |  |  |  |  |  |  |  |                                                                                               |  |  |  |  |  |  |  |  |  | CALCULATED VERT. DEFL.(TL) = L/ 999 (0.13")                                                        |  |  |  |  |  |  |  |  |  |

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TOTAL WEIGHT = 18 X 17 = 308 lb [M]

| LUMBER            |        |      |        |  | DESCR. |
|-------------------|--------|------|--------|--|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER |  |        |
| 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.

#### 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     |  |
| 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

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |        |       |  |  |
|-----------|----------|-------------------------------|-------|-----------|-------|--------|-------|--|--|
| JT        | COMBINED | 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: (3)

| CHORDS |             | FACTORED         |                | WEBS  |             | FACTORED  |  |
|--------|-------------|------------------|----------------|-------|-------------|-----------|--|
| MEMB.  | FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX. (LC)  | MEMB. | FORCE (LBS) | MAX. (LC) |  |
| FR-TO  |             | FROM             | TO             | FR-TO |             | LENGTH    |  |
| 5-2    | -395 / 0    | 0.0              | 0.0 0.13 (3)   | 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 (3) | 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 (4-5:3) , 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) SHEAR SECTION  
(PSI) (PLI) (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.

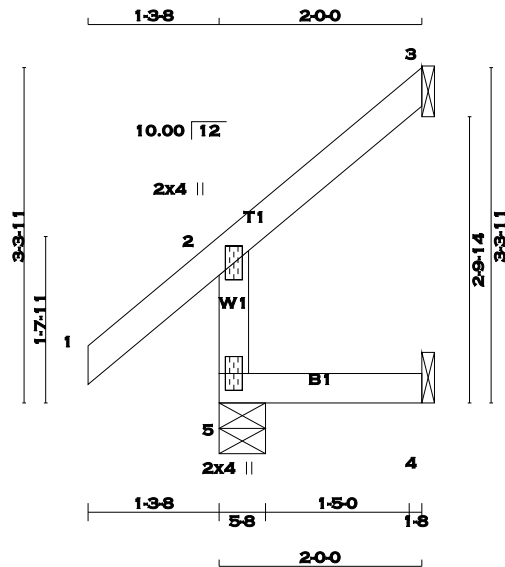
JSI GRIP= 0.23 (2) (INPUT = 0.90 )  
JSI METAL= 0.09 (2) (INPUT = 1.00 )



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SCALE = 1:22.7

TOTAL WEIGHT = 9 X 9 = 79 lb [M]

| LUMBER            |        |      |        |     | DESCR. |
|-------------------|--------|------|--------|-----|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER | SPF |        |
| 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.

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

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |
|----|-------------------------|------|---------------------------------|------|-----------|-------|-----------|--|
|    | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | 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    | 18                              | 0    | 0         | 1-8   | 1-8       |  |

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

**UNFACTORED REACTIONS**

| JT | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |       | LIVE  | PERM.LIVE | WIND   | DEAD  | SOIL  |
|----|-----------|---------|-------------------------------|-------|-------|-----------|--------|-------|-------|
|    | COMBINED  | SNOW    | DOWN                          | HORZ  |       |           |        |       |       |
| 5  | 153       | 122 / 0 | 0 / 0                         | 0 / 0 | 0 / 0 | 0 / 0     | 31 / 0 | 0 / 0 | 0 / 0 |
| 3  | 40        | 35 / 0  | 0 / 0                         | 0 / 0 | 0 / 0 | 0 / 0     | 5 / 0  | 0 / 0 | 0 / 0 |
| 4  | 13        | 0 / 0   | 0 / 0                         | 0 / 0 | 0 / 0 | 0 / 0     | 13 / 0 | 0 / 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)

| MEMB. | CHORDS           |                  | FACTORED |               | WEBS              |               | FACTORED          |               |
|-------|------------------|------------------|----------|---------------|-------------------|---------------|-------------------|---------------|
|       | MAX. FORCE (LBS) | VERT. LOAD (PLF) | LC1      | MAX. CSI (LC) | MEMB. FORCE (LBS) | MAX. CSI (LC) | MEMB. FORCE (LBS) | MAX. CSI (LC) |
| FR-TO |                  |                  |          |               |                   |               |                   |               |
| 5-2   | -203 / 0         | 0.0              | 0.0      | 0.01 (3)      | 7.81              |               |                   |               |
| 1-2   | 0 / 34           | -77.3            | -77.3    | 0.11 (1)      | 10.00             |               |                   |               |
| 2-3   | -12 / 0          | -77.3            | -77.3    | 0.05 (1)      | 6.25              |               |                   |               |
| 5-4   | 0 / 0            | -17.5            | -17.5    | 0.02 (3)      | 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=0.11 (1-2:1) , BC=0.02 (4-5:3) , WB=0.00 (n/a:0) , SSI=0.06 (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) SHEAR SECTION  
(PSI) (PLI) (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.

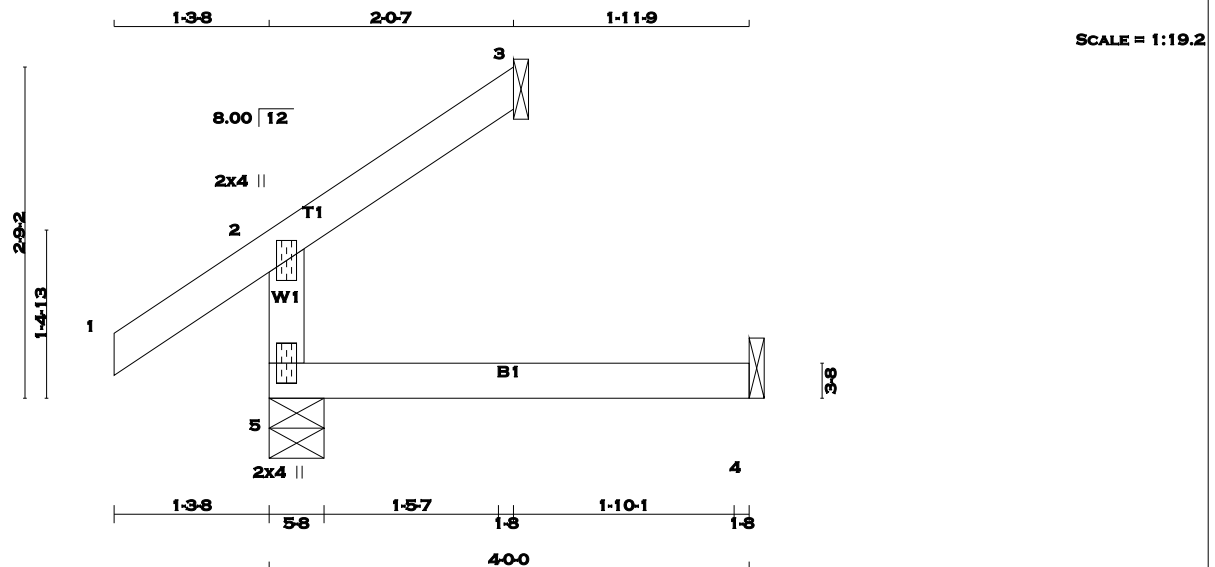
JSI GRIP= 0.15 (2) (INPUT = 0.90 )  
JSI METAL= 0.05 (2) (INPUT = 1.00 )



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IN THE DESIGN OF THIS COMPONENT.





TOTAL WEIGHT = 2 X 10 = 21 lb [M]

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

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

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.

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

**BEARINGS**

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG | REQRD BRG |
|----|-------------------------|------|---------------------------------|------|-----------|-----------|
|    | VERT                    | HORZ | DOWN                            | HORZ |           |           |
| 5  | 244                     | 0    | 244                             | 0    | 5-8       | 5-8       |
| 3  | 60                      | 0    | 60                              | 0    | 1-8       | 1-8       |
| 4  | 30                      | 0    | 34                              | 0    | 1-8       | 1-8       |

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

| UNFACTORED REACTIONS |           |         |                               |           |       |        |       |
|----------------------|-----------|---------|-------------------------------|-----------|-------|--------|-------|
| JT                   | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |           |       |        |       |
|                      | COMBINED  | SNOW    | LIVE                          | PERM.LIVE | WIND  | DEAD   | SOIL  |
| 5                    | 171       | 123 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 48 / 0 | 0 / 0 |
| 3                    | 40        | 36 / 0  | 0 / 0                         | 0 / 0     | 0 / 0 | 5 / 0  | 0 / 0 |
| 4                    | 24        | 0 / 0   | 0 / 0                         | 0 / 0     | 0 / 0 | 24 / 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: (3)

| MEMB. | CHORDS        |       | FACTORED   |         | MAX. UNBRAC | MEMB. | WEBS          |       |
|-------|---------------|-------|------------|---------|-------------|-------|---------------|-------|
|       | MAX. FACTORED | FORCE | VERT. LOAD | LC1 MAX |             |       | MAX. FACTORED | FORCE |
| FR-TO |               |       |            |         |             | FR-TO |               |       |
| 5-2   | -204 / 0      |       | 0.0        | 0.0     | 0.05 (3)    | 7.81  |               |       |
| 1-2   | 0 / 29        |       | -77.3      | -77.3   | 0.10 (1)    | 10.00 |               |       |
| 2-3   | -11 / 0       |       | -77.3      | -77.3   | 0.05 (1)    | 6.25  |               |       |
| 5-4   | 0 / 0         |       | -17.5      | -17.5   | 0.06 (3)    | 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 (0.01")

CSI: TC=0.10 (1-2:1) , BC=0.06 (4-5:3) , 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) | SHEAR | SECTION            |
|-------|-----------|-------|--------------------|
| (PSI) | (PLI)     | (PLI) |                    |
| MAX   | MIN       | MAX   | MIN                |
| MT20  | 618       | 354   | 1667 822 2284 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

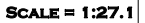
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JSI METAL= 0.05 (2) (INPUT = 1.00 )

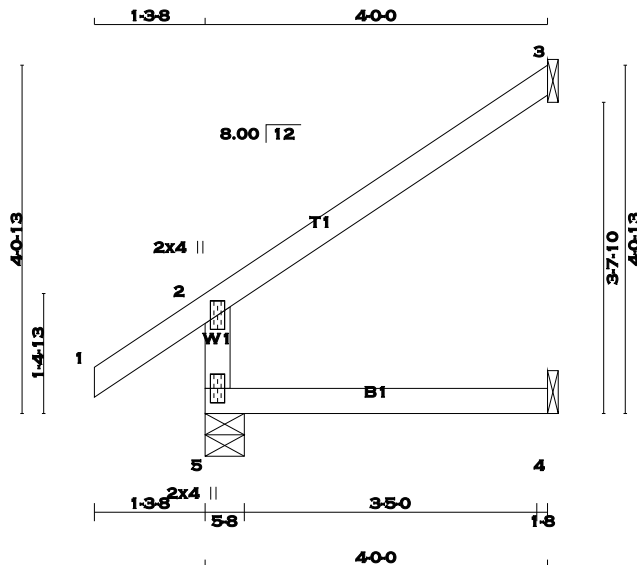


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 IN THE DESIGN OF THIS COMPONENT.







SCALE = 1:26.9

TOTAL WEIGHT = 3 X 13 = 39 lb [M]

| LUMBER            |        |      |        |  | DESCR. |
|-------------------|--------|------|--------|--|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER |  |        |
| 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.

#### 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     |  |
| 5        |  | 339                     | 0    | 339                             | 0    | 0         | 5-8   | 5-8       |  |
| 3        |  | 116                     | 0    | 116                             | 0    | 0         | 1-8   | 1-8       |  |
| 4        |  | 30                      | 0    | 34                              | 0    | 0         | 1-8   | 1-8       |  |

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

#### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |        |       |  |  |
|-----------|----------|-------------------------------|-------|-----------|-------|--------|-------|--|--|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |  |  |
| 5         | 235      | 180 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 55 / 0 | 0 / 0 |  |  |
| 3         | 79       | 70 / 0                        | 0 / 0 | 0 / 0     | 0 / 0 | 9 / 0  | 0 / 0 |  |  |
| 4         | 24       | 0 / 0                         | 0 / 0 | 0 / 0     | 0 / 0 | 24 / 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: (3)

| CHORDS |             | FACTORED         |                | WEBS  |             | FACTORED  |  |
|--------|-------------|------------------|----------------|-------|-------------|-----------|--|
| MEMB.  | FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX. (LC)  | MEMB. | FORCE (LBS) | MAX. (LC) |  |
| FR-TO  |             | FROM TO          |                | FR-TO |             |           |  |
| 5-2    | -299 / 0    | 0.0              | 0.0 0.05 (3)   | 7.81  |             |           |  |
| 1-2    | 0 / 29      | -77.3            | -77.3 0.10 (1) | 10.00 |             |           |  |
| 2-3    | -21 / 0     | -77.3            | -77.3 0.21 (1) | 6.25  |             |           |  |
| 5-4    | 0 / 0       | -17.5            | -17.5 0.06 (3) | 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 (0.01")

CSI: TC=0.21 (2-3:1) , BC=0.06 (4-5:3) , WB=0.00 (n/a:0) , SSI=0.13 (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) SHEAR SECTION  
(PSI) (PLI) (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.

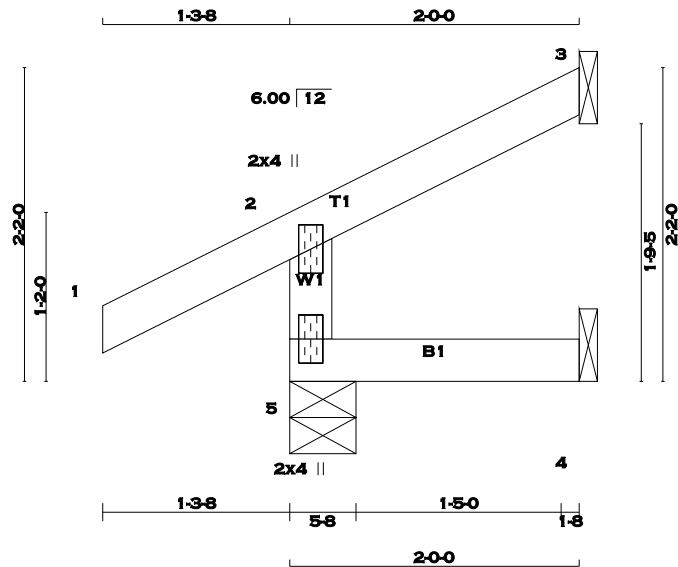
JSI GRIP= 0.19 (2) (INPUT = 0.90 )  
JSI METAL= 0.07 (2) (INPUT = 1.00 )



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 IN THE DESIGN OF THIS COMPONENT.





SCALE: 3/4"=1'

TOTAL WEIGHT = 14 X 7 = 104 lb [M]

| LUMBER            |        |      |        |     | DESCR. |
|-------------------|--------|------|--------|-----|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER | SPF |        |
| 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.

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

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |
|----|-------------------------|------|---------------------------------|------|-----------|-------|-----------|--|
|    | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     |  |
| 5  | 221                     | 0    | 221                             | 0    | 0         | 5-8   | 5-8       |  |
| 3  | 58                      | 0    | 58                              | 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 |         | MAX./MIN. COMPONENT REACTIONS |       | WIND  | DEAD   | SOIL  |
|----|-----------|---------|-------------------------------|-------|-------|--------|-------|
|    | COMBINED  | SNOW    | LIVE                          | PERM. |       |        |       |
| 5  | 152       | 121 / 0 | 0 / 0                         | 0 / 0 | 0 / 0 | 31 / 0 | 0 / 0 |
| 3  | 40        | 35 / 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: (4)

| MEMB. | CHORDS           |                  | FACTORED |               | WEBS              |               | FACTORED         |               |
|-------|------------------|------------------|----------|---------------|-------------------|---------------|------------------|---------------|
|       | MAX. FORCE (LBS) | VERT. LOAD (PLF) | LC1      | MAX. CSI (LC) | MEMB. FORCE (LBS) | MAX. CSI (LC) | MAX. FORCE (LBS) | MAX. CSI (LC) |
| FR-TO |                  |                  |          |               |                   |               |                  |               |
| 5-2   | -201 / 0         | 0.0              | 0.0      | 0.01 (3)      | 7.81              |               |                  |               |
| 1-2   | 0 / 23           | -77.3            | -77.3    | 0.10 (1)      | 10.00             |               |                  |               |
| 2-3   | -8 / 0           | -77.3            | -77.3    | 0.05 (1)      | 10.00             |               |                  |               |
| 5-4   | 0 / 0            | -17.5            | -17.5    | 0.02 (3)      | 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:  
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- 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 (4-5:3), 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) SHEAR SECTION  
(PSI) (PLI) (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.

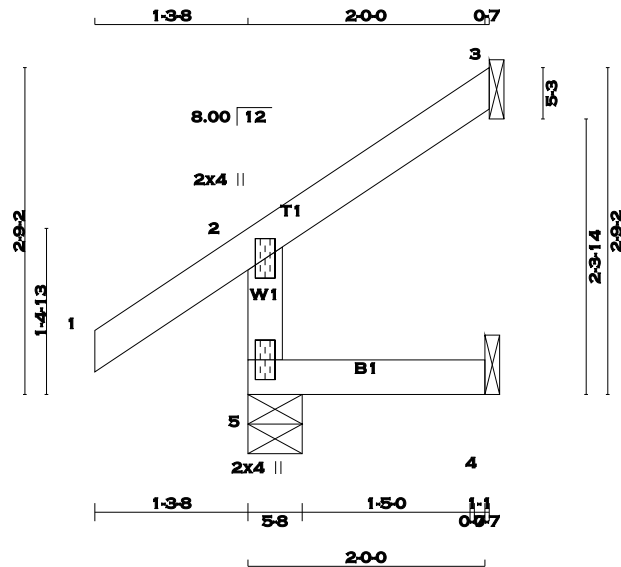
JSI GRIP= 0.12 (2) (INPUT = 0.90 )  
JSI METAL= 0.04 (2) (INPUT = 1.00 )



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SCALE = 1:19.4

TOTAL WEIGHT = 5 X 8 = 41 lb [M]

| LUMBER            |        |      |        | DESCR. |     |
|-------------------|--------|------|--------|--------|-----|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER | SPF    | SPF |
| 5 - 2             | 2x4    | DRY  | No.2   | SPF    | SPF |
| 1 - 3             | 2x4    | DRY  | No.2   | SPF    | SPF |
| 5 - 4             | 2x4    | DRY  | No.2   | SPF    | 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.

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

| FACTORED GROSS REACTION |      |      | MAXIMUM FACTORED GROSS REACTION |      |        | INPUT BRG |       | REQRD BRG |       |
|-------------------------|------|------|---------------------------------|------|--------|-----------|-------|-----------|-------|
| JT                      | VERT | HORZ | DOWN                            | HORZ | UPLIFT | IN-SX     | IN-SX | IN-SX     | IN-SX |
| 5                       | 223  | 0    | 223                             | 0    | 0      | 5-8       | 5-8   | 5-8       | 5-8   |
| 3                       | 60   | 0    | 60                              | 0    | 0      | 1-8       | 1-8   | 1-8       | 1-8   |
| 4                       | 16   | 0    | 18                              | 0    | 0      | 1-8       | 1-8   | 1-8       | 1-8   |

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

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. SNOW | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |
|----|-----------|----------------|-------|-----------|-------|--------|-------|
| 5  | 154       | 123 / 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  | 13        | 0 / 0          | 0 / 0 | 0 / 0     | 0 / 0 | 13 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 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 |                           |                           |               | WEBS  |                           |                              |               |
|--------|---------------------------|---------------------------|---------------|-------|---------------------------|------------------------------|---------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (FR-TO) | MAX. LC1 (LC) |
| 5-2    | -204 / 0                  | 0.0                       | 0.0 (3)       | 7.81  |                           |                              |               |
| 1-2    | 0 / 29                    | -77.3                     | -77.3 (1)     | 10.00 |                           |                              |               |
| 2-3    | -11 / 0                   | -77.3                     | -77.3 (1)     | 6.25  |                           |                              |               |
| 5-4    | 0 / 0                     | -17.5                     | -17.5 (3)     | 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.(TL)= L/360 (0.19")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.00")

CSI: TC=0.10 (1-2:1) , BC=0.02 (4-5:3) , 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) SHEAR SECTION  
(PSI) (PLI) (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.

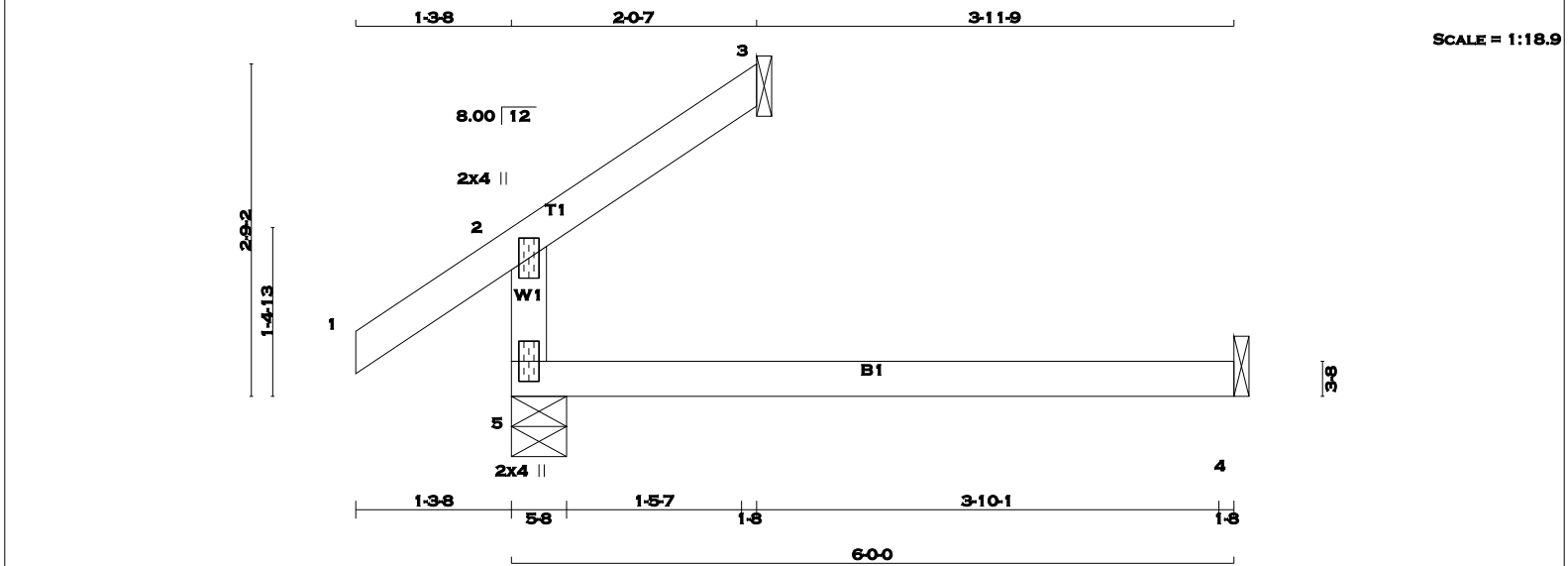
JSI GRIP= 0.13 (2) (INPUT = 0.90 )  
JSI METAL= 0.05 (2) (INPUT = 1.00 )



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LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

SPF

5 - 2

2x4

DRY

No.2

SPF

1 - 3

2x4

DRY

No.2

SPF

5 - 4

2x4

DRY

No.2

SPF

DRY: SEASONED LUMBER.

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

BEARINGS

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG | REQRD BRG |
|----|-------------------------|------|---------------------------------|------|-----------|-----------|
|    | VERT                    | HORZ | DOWN                            | HORZ |           |           |
| 5  | 265                     | 0    | 265                             | 0    | 5-8       | 5-8       |
| 3  | 60                      | 0    | 60                              | 0    | 1-8       | 1-8       |
| 4  | 44                      | 0    | 49                              | 0    | 1-8       | 1-8       |

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

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.

UNFACTORED REACTIONS

| JT | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |           | WIND  | DEAD   | SOIL  |
|----|-----------|---------|-------------------------------|-----------|-------|--------|-------|
|    | COMBINED  | SNOW    | LIVE                          | PERM.LIVE |       |        |       |
| 5  | 188       | 123 / 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 = 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: (3)

| MEMB. | CHORDS        |             | FACTORED         |          | MAX. UNBRAC | WEBS              |              |
|-------|---------------|-------------|------------------|----------|-------------|-------------------|--------------|
|       | MAX. FACTORED | FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX  |             | MEMB. FORCE (LBS) | FACTORED MAX |
| FR-TO |               |             | FROM             | TO       | LENGTH      | FR-TO             |              |
| 5-2   | -204 / 0      | 0.0         | 0.0              | 0.12 (3) | 7.81        |                   |              |
| 1-2   | 0 / 29        | -77.3       | -77.3            | 0.10 (1) | 10.00       |                   |              |
| 2-3   | -11 / 0       | -77.3       | -77.3            | 0.05 (1) | 6.25        |                   |              |
| 5-4   | 0 / 0         | -17.5       | -17.5            | 0.13 (3) | 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=0.12 (2-5:3) , BC=0.13 (4-5:3) , WB=0.00 (n/a:0) , SSI=0.08 (4-5:3)

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) SHEAR SECTION

(PSI) (PLI) (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= 0.13 (2) (INPUT = 0.90 )

JSI METAL= 0.05 (2) (INPUT = 1.00 )

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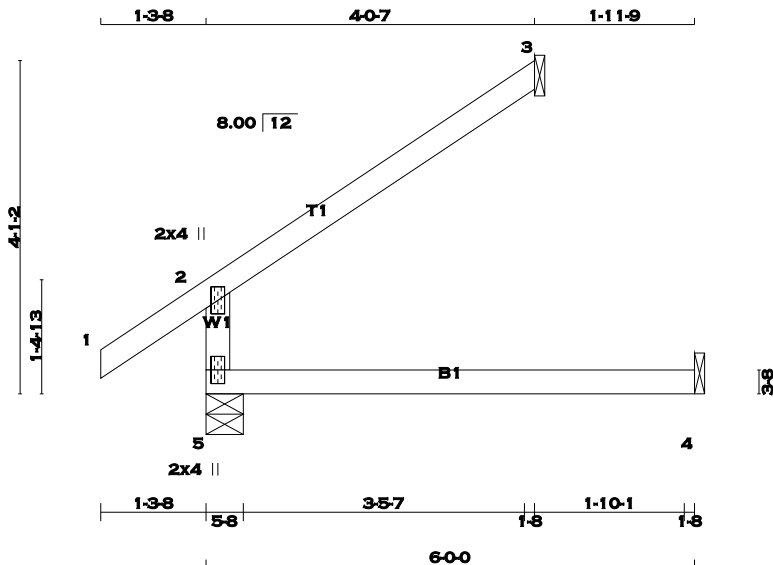
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MAR 29, 2017

17-5010

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TOTAL WEIGHT = 2 X 15 = 31 lb [M]

| LUMBER            |        |      |        |  | DESCR. |
|-------------------|--------|------|--------|--|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER |  |        |
| 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.

**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     |  |
| 5        |  | 362                     | 0    | 362                             | 0    | 0         | 5-8   | 5-8       |  |
| 3        |  | 117                     | 0    | 117                             | 0    | 0         | 1-8   | 1-8       |  |
| 4        |  | 44                      | 0    | 49                              | 0    | 0         | 1-8   | 1-8       |  |

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

**UNFACTORED REACTIONS**

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |        |       |  |  |
|-----------|----------|-------------------------------|-------|-----------|-------|--------|-------|--|--|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |  |  |
| 5         | 254      | 181 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 72 / 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: (3)

| CHORDS |             | FACTORED         |                   | WEBS  |             | FACTORED      |  |
|--------|-------------|------------------|-------------------|-------|-------------|---------------|--|
| MEMB.  | FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX. CSI (LC) | MEMB. | FORCE (LBS) | MAX. CSI (LC) |  |
| FR-TO  |             | FROM TO          |                   | FR-TO |             |               |  |
| 5-2    | -301 / 0    | 0.0              | 0.0 0.12 (3)      | 7.81  |             |               |  |
| 1-2    | 0 / 29      | -77.3            | -77.3 0.10 (1)    | 10.00 |             |               |  |
| 2-3    | -22 / 0     | -77.3            | -77.3 0.21 (1)    | 6.25  |             |               |  |
| 5-4    | 0 / 0       | -17.5            | -17.5 0.13 (3)    | 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 (4-5:3) , WB=0.00 (n/a:0) , SSI=0.13 (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) SHEAR SECTION  
(PSI) (PLI) (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.

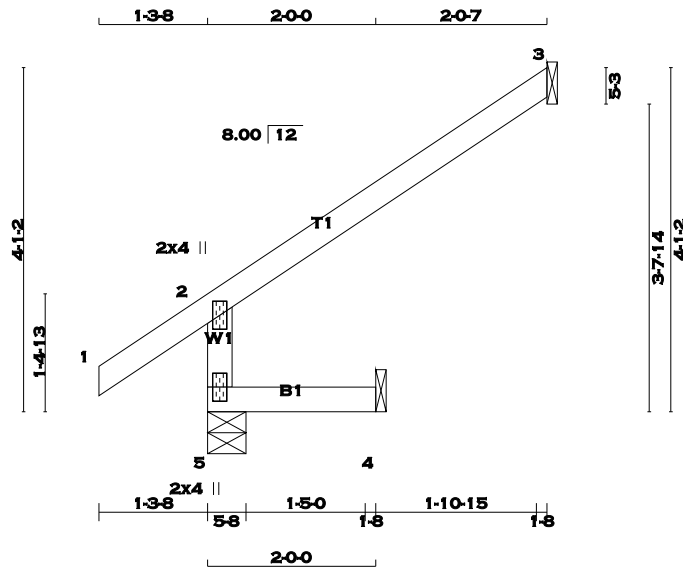
JSI GRIP= 0.19 (2) (INPUT = 0.90 )  
JSI METAL= 0.07 (2) (INPUT = 1.00 )



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SCALE = 1:27.4

TOTAL WEIGHT = 2 X 11 = 22 lb

| 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.

#### 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     |  |
| 5        |  | 320                     | 0    | 320                             | 0    | 0         | 5-8   | 5-8       |  |
| 3        |  | 117                     | 0    | 117                             | 0    | 0         | 1-8   | 1-8       |  |
| 4        |  | 16                      | 0    | 18                              | 0    | 0         | 1-8   | 1-8       |  |

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

#### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |        |       |  |  |
|-----------|----------|-------------------------------|-------|-----------|-------|--------|-------|--|--|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |  |  |
| 5         | 220      | 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         | 13       | 0 / 0                         | 0 / 0 | 0 / 0     | 0 / 0 | 13 / 0 | 0 / 0 |  |  |

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

| CHORDS |             | FACTORED         |                | WEBS  |             | FACTORED  |  |
|--------|-------------|------------------|----------------|-------|-------------|-----------|--|
| MEMB.  | FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX. (LC)  | MEMB. | FORCE (LBS) | MAX. (LC) |  |
| FR-TO  |             | FROM TO          |                | FR-TO |             |           |  |
| 5-2    | -301 / 0    | 0.0              | 0.0 0.01 (3)   | 7.81  |             |           |  |
| 1-2    | 0 / 29      | -77.3            | -77.3 0.10 (1) | 10.00 |             |           |  |
| 2-3    | -22 / 0     | -77.3            | -77.3 0.21 (1) | 6.25  |             |           |  |
| 5-4    | 0 / 0       | -17.5            | -17.5 0.02 (3) | 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 (4-5:3) , WB=0.00 (n/a:0) , SSI=0.13 (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) SHEAR SECTION  
(PSI) (PLI) (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.

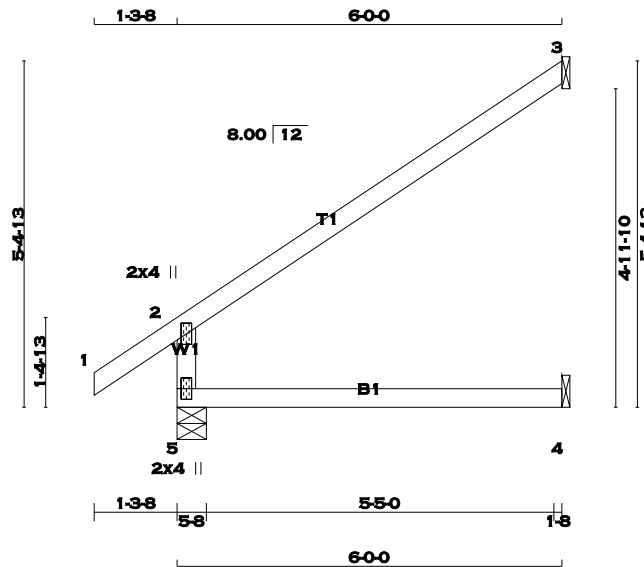
JSI GRIP= 0.19 (2) (INPUT = 0.90 )  
JSI METAL= 0.07 (2) (INPUT = 1.00 )



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SCALE = 1:35.9

TOTAL WEIGHT = 4 X 18 = 73 lb [M]

| LUMBER            |        |      |        |     | DESCR. |
|-------------------|--------|------|--------|-----|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER | SPF |        |
| 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.

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

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |
|----|-------------------------|------|---------------------------------|------|-----------|-------|-----------|--|
|    | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     |  |
| 5  | 457                     | 0    | 457                             | 0    | 0         | 5-8   | 5-8       |  |
| 3  | 174                     | 0    | 174                             | 0    | 0         | 1-8   | 1-8       |  |
| 4  | 44                      | 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 |         | MAX./MIN. COMPONENT REACTIONS |       | WIND  | DEAD   | SOIL  |
|----|-----------|---------|-------------------------------|-------|-------|--------|-------|
|    | COMBINED  | SNOW    | LIVE                          | PERM. |       |        |       |
| 5  | 318       | 239 / 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: (3)

| MEMB. | CHORDS           |                  | FACTORED |               | WEBS        |                   | FACTORED      |  |
|-------|------------------|------------------|----------|---------------|-------------|-------------------|---------------|--|
|       | MAX. FORCE (LBS) | VERT. LOAD (PLF) | LC1      | MAX. CSI (LC) | MAX. UNBRAC | MEMB. FORCE (LBS) | MAX. CSI (LC) |  |
| FR-TO |                  | FROM TO          |          |               | LENGTH      | FR-TO             |               |  |
| 5-2   | -396 / 0         | 0.0              | 0.0      | 0.12 (3)      | 7.81        |                   |               |  |
| 1-2   | 0 / 29           | -77.3            | -77.3    | 0.10 (1)      | 10.00       |                   |               |  |
| 2-3   | -32 / 0          | -77.3            | -77.3    | 0.47 (1)      | 6.25        |                   |               |  |
| 5-4   | 0 / 0            | -17.5            | -17.5    | 0.13 (3)      | 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 (4-5:3) , WB=0.00 (n/a:0) , SSI=0.19 (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) | SHEAR | SECTION |
|-------|-----------|-------|---------|
| (PSI) | (PLI)     | (PLI) | (PLI)   |
| MAX   | MIN       | MAX   | MIN     |
| MT20  | 618       | 354   | 1667    |
|       | 822       | 2284  | 1656    |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

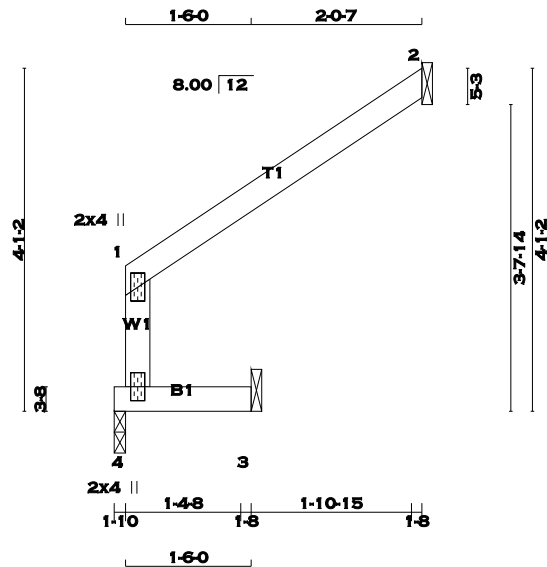
JSI GRIP= 0.25 (2) (INPUT = 0.90 )  
JSI METAL= 0.10 (2) (INPUT = 1.00 )



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SCALE = 1:27.5

TOTAL WEIGHT = 8 lb

[M][F]

#### LUMBER

| N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
|-------------------|--------|------|--------|--------|
| 4 - 1             | 2x4    | DRY  | No.2   | SPF    |
| 1 - 2             | 2x4    | DRY  | No.2   | SPF    |
| 4 - 3             | 2x4    | DRY  | No.2   | SPF    |

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE   | PLATES | W   | LEN | Y | X |
|----|--------|--------|-----|-----|---|---|
| 1  | TMV+p  | MT20   | 2.0 | 4.0 |   |   |
| 4  | BMV1+p | MT20   | 2.0 | 4.0 |   |   |

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

| JT | FACTORED<br>GROSS REACTION |      | MAXIMUM FACTORED<br>GROSS REACTION |      |        | INPUT<br>BRG | REQRD<br>BRG |
|----|----------------------------|------|------------------------------------|------|--------|--------------|--------------|
|    | VERT                       | HORZ | DOWN                               | HORZ | UPLIFT | IN-SX        | IN-SX        |
| 4  | 130                        | 0    | 130                                | 0    | 0      | 1-10         | 1-10         |
| 2  | 122                        | 0    | 122                                | 0    | 0      | 1-8          | 1-8          |
| 3  | 47                         | 0    | 47                                 | 0    | 0      | 1-8          | 1-8          |

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 2 , 3

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS |       |           |       |        |       |
|----|-----------|-------------------------------|-------|-----------|-------|--------|-------|
|    | COMBINED  | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |
| 4  | 90        | 70 / 0                        | 0 / 0 | 0 / 0     | 0 / 0 | 20 / 0 | 0 / 0 |
| 2  | 83        | 74 / 0                        | 0 / 0 | 0 / 0     | 0 / 0 | 10 / 0 | 0 / 0 |
| 3  | 33        | 21 / 0                        | 0 / 0 | 0 / 0     | 0 / 0 | 13 / 0 | 0 / 0 |

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

| CHORDS |             | FACTORED         |       |              |                      | WEBS              |                        |
|--------|-------------|------------------|-------|--------------|----------------------|-------------------|------------------------|
| MEMB.  | FORCE (LBS) | VERT. LOAD (PLF) | LC1   | MAX CSI (LC) | MAX. UNBRACED LENGTH | MEMB. FORCE (LBS) | MAX. FACTORED CSI (LC) |
| FR-TO  |             | FROM             | TO    |              |                      | FR-TO             |                        |
| 4-1    | -151 / 0    | 0.0              | 0.0   | 0.06 (1)     | 7.81                 |                   |                        |
| 1-2    | -8 / 0      | -77.3            | -77.3 | 0.12 (1)     | 10.00                |                   |                        |
| 4-3    | 0 / 0       | -17.5            | -17.5 | 0.07 (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 (0.19")  
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=0.12 (1-2:1) , BC=0.07 (3-4:1) , WB=0.00 (n/a:0) , SSI=0.10 (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) SHEAR SECTION  
(PSI) (PLI) (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.

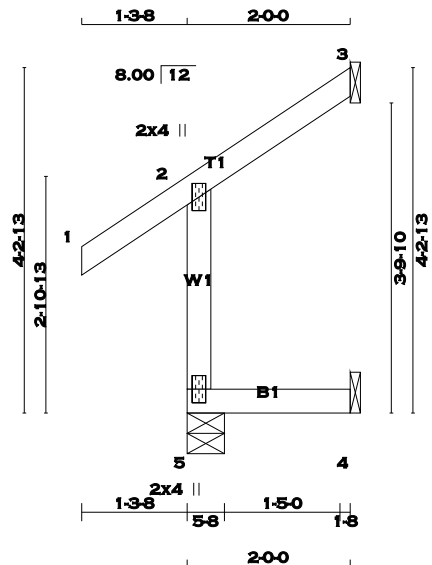
JSI GRIP= 0.10 (1) (INPUT = 0.90 )  
JSI METAL= 0.04 (1) (INPUT = 1.00 )



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SCALE = 1:28.3

TOTAL WEIGHT = 10 lb [M]

| LUMBER            |        |      |        |  | DESCR. |
|-------------------|--------|------|--------|--|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER |  |        |
| 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.

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

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |
|----|-------------------------|------|---------------------------------|------|-----------|-------|-----------|--|
|    | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     |  |
| 5  | 220                     | 0    | 220                             | 0    | 0         | 5-8   | 5-8       |  |
| 3  | 59                      | 0    | 59                              | 0    | 0         | 1-8   | 1-8       |  |
| 4  | 17                      | 0    | 19                              | 0    | 0         | 1-8   | 1-8       |  |

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

**UNFACTORED REACTIONS**

| JT | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |           |       |        |       | SOIL |
|----|-----------|---------|-------------------------------|-----------|-------|--------|-------|------|
|    | COMBINED  | SNOW    | LIVE                          | PERM.LIVE | WIND  | DEAD   |       |      |
| 5  | 152       | 121 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 30 / 0 | 0 / 0 |      |
| 3  | 40        | 36 / 0  | 0 / 0                         | 0 / 0     | 0 / 0 | 5 / 0  | 0 / 0 |      |
| 4  | 13        | 0 / 0   | 0 / 0                         | 0 / 0     | 0 / 0 | 13 / 0 | 0 / 0 |      |

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

| MEMB. | CHORDS           |                  | FACTORED      |                      | WEBS              |              | FACTORED         |              |
|-------|------------------|------------------|---------------|----------------------|-------------------|--------------|------------------|--------------|
|       | MAX. FORCE (LBS) | VERT. LOAD (PLF) | MAX. LC1 (LC) | MAX. UNBRACED LENGTH | MEMB. FORCE (LBS) | MAX. LC (LC) | MAX. FORCE (LBS) | MAX. LC (LC) |
| FR-TO |                  | FROM TO          |               |                      | FR-TO             |              |                  |              |
| 5-2   | -202 / 0         | 0.0              | 0.0           | 0.00 (3)             | 7.81              |              |                  |              |
| 1-2   | 0 / 29           | -77.3            | -77.3         | 0.10 (1)             | 10.00             |              |                  |              |
| 2-3   | -10 / 0          | -77.3            | -77.3         | 0.05 (1)             | 6.25              |              |                  |              |
| 5-4   | 0 / 0            | -17.5            | -17.5         | 0.02 (3)             | 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 (4-5:3) , 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) SHEAR SECTION  
(PSI) (PLI) (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.

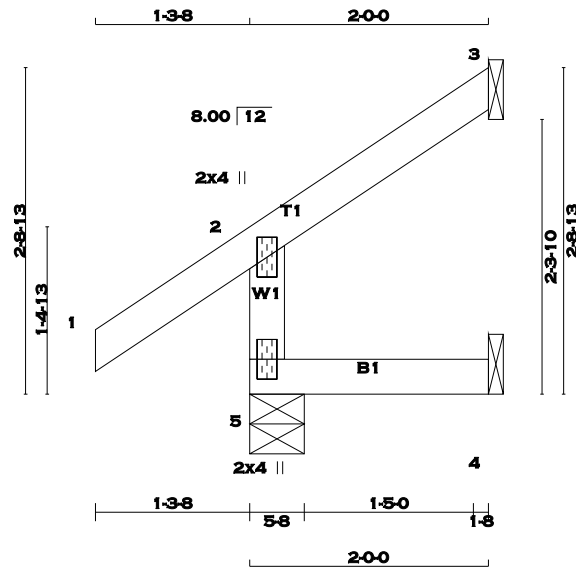
JSI GRIP= 0.13 (2) (INPUT = 0.90 )  
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 IN THE DESIGN OF THIS COMPONENT.





SCALE = 1:19.3

TOTAL WEIGHT = 15 X 8 = 122 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.

#### 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     |  |
| 5        |  | 222                     | 0    | 222                             | 0    | 0         | 5-8   | 5-8       |  |
| 3        |  | 59                      | 0    | 59                              | 0    | 0         | 1-8   | 1-8       |  |
| 4        |  | 16                      | 0    | 18                              | 0    | 0         | 1-8   | 1-8       |  |

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

#### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |        |       |  |  |
|-----------|----------|-------------------------------|-------|-----------|-------|--------|-------|--|--|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |  |  |
| 5         | 153      | 122 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 31 / 0 | 0 / 0 |  |  |
| 3         | 40       | 35 / 0                        | 0 / 0 | 0 / 0     | 0 / 0 | 5 / 0  | 0 / 0 |  |  |
| 4         | 13       | 0 / 0                         | 0 / 0 | 0 / 0     | 0 / 0 | 13 / 0 | 0 / 0 |  |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 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 |             | FACTORED         |                | WEBS  |             | FACTORED  |  |
|--------|-------------|------------------|----------------|-------|-------------|-----------|--|
| MEMB.  | FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX. (LC)  | MEMB. | FORCE (LBS) | MAX. (LC) |  |
| FR-TO  |             | FROM TO          | LENGTH         | FR-TO |             |           |  |
| 5-2    | -202 / 0    | 0.0              | 0.0 0.01 (3)   | 7.81  |             |           |  |
| 1-2    | 0 / 29      | -77.3            | -77.3 0.10 (1) | 10.00 |             |           |  |
| 2-3    | -10 / 0     | -77.3            | -77.3 0.05 (1) | 6.25  |             |           |  |
| 5-4    | 0 / 0       | -17.5            | -17.5 0.02 (3) | 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 (4-5:3) , 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) SHEAR SECTION  
(PSI) (PLI) (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.

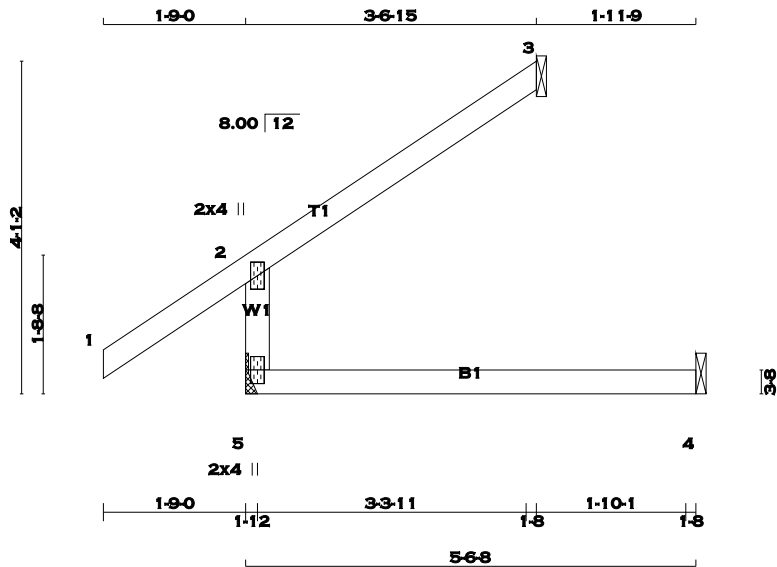
JSI GRIP= 0.13 (2) (INPUT = 0.90 )  
JSI METAL= 0.05 (2) (INPUT = 1.00 )



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TOTAL WEIGHT = 15 lb [M]

| LUMBER            |        |      |        | DESCR. |     |     |
|-------------------|--------|------|--------|--------|-----|-----|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER | SPF    | SPF | SPF |
| 5 - 2             | 2x4    | DRY  | No.2   |        |     |     |
| 1 - 3             | 2x4    | DRY  | No.2   |        |     |     |
| 5 - 4             | 2x4    | DRY  | No.2   |        |     |     |

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.

#### 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 | IN-SX     | IN-SX | IN-SX            | IN-SX                |
| 5        |  | 370                     | 0    | 370                             | 0    | 0         | 0     | HANGER BY OTHERS | MIN. SEAT SIZE: 1-12 |
| 3        |  | 104                     | 0    | 104                             | 0    | 0         | 0     | 1-8              | 1-8                  |
| 4        |  | 42                      | 0    | 47                              | 0    | 0         | 0     | 1-8              | 1-8                  |

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

#### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |        |       |  |
|-----------|----------|-------------------------------|-------|-----------|-------|--------|-------|--|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |  |
| 5         | 258      | 189 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 69 / 0 | 0 / 0 |  |
| 3         | 71       | 63 / 0                        | 0 / 0 | 0 / 0     | 0 / 0 | 8 / 0  | 0 / 0 |  |
| 4         | 33       | 0 / 0                         | 0 / 0 | 0 / 0     | 0 / 0 | 33 / 0 | 0 / 0 |  |

#### BRACING

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

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

#### LOADING

TOTAL LOAD CASES: (3)

| CHORDS |             | FACTORED         |                | WEBS  |             | FACTORED                  |                    |
|--------|-------------|------------------|----------------|-------|-------------|---------------------------|--------------------|
| MEMB.  | FORCE (LBS) | VERT. LOAD (PLF) | MAX. LC1 (LC)  | MEMB. | FORCE (LBS) | MAX. UNBRACED LENGTH (LC) | MAX. FACTORED (LC) |
| FR-TO  |             | FROM             | TO             | FR-TO |             |                           |                    |
| 5-2    | -314 / 0    | 0.0              | 0.0 0.09 (3)   | 7.81  |             |                           |                    |
| 1-2    | 0 / 39      | -77.3            | -77.3 0.18 (1) | 10.00 |             |                           |                    |
| 2-3    | -19 / 0     | -77.3            | -77.3 0.17 (1) | 6.25  |             |                           |                    |
| 5-4    | 0 / 0       | -17.5            | -17.5 0.12 (3) | 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 (0.03")

CSI: TC=0.18 (1-2:1) , BC=0.12 (4-5:3) , WB=0.00 (n/a:0) , SSI=0.11 (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

AUTOSOLVE RIGHT HEEL ONLY

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

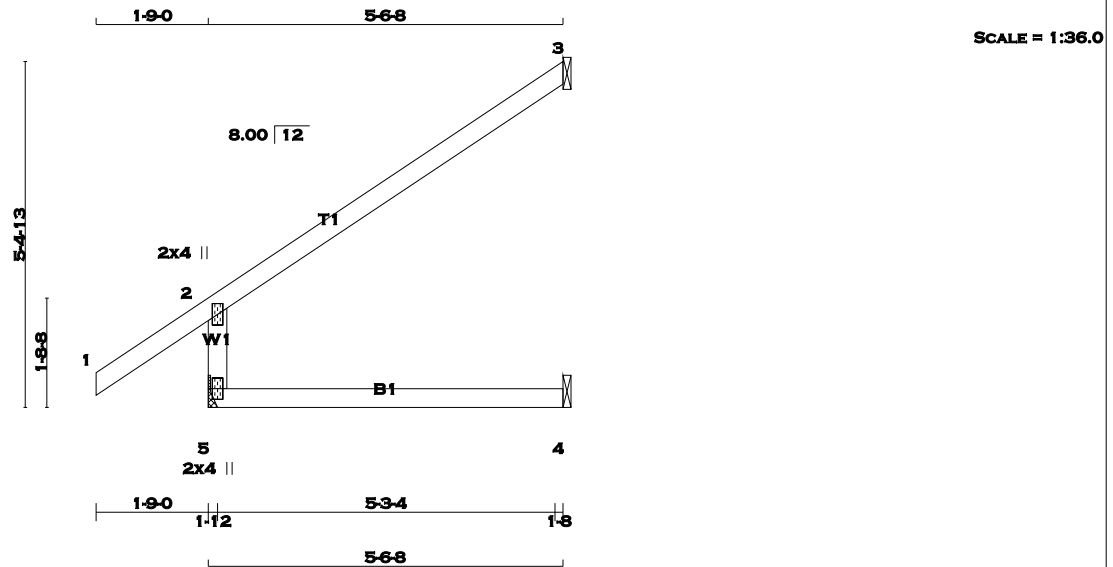
JSI GRIP= 0.20 (2) (INPUT = 0.90 )  
JSI METAL= 0.08 (2) (INPUT = 1.00 )



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TOTAL WEIGHT = 2 X 18 = 36 lb [M]

| LUMBER             |        | DESCR. |
|--------------------|--------|--------|
| N. L. G. A. RULES  | LUMBER | SPF    |
| CHORDS SIZE        |        |        |
| 5 - 2 2x4 DRY No.2 |        |        |
| 1 - 3 2x4 DRY No.2 |        |        |
| 5 - 4 2x4 DRY No.2 |        |        |

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.

| 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 |  |  |
| 5                                                                                             | 465                     | 0    | 465                             | 0    | 0         | HANGER BY OTHERS |       |  |  |
| MIN. SEAT SIZE: 1-12                                                                          |                         |      |                                 |      |           |                  |       |  |  |
| 3                                                                                             | 161                     | 0    | 161                             | 0    | 0         | 1-8              | 1-8   |  |  |
| 4                                                                                             | 42                      | 0    | 47                              | 0    | 0         | 1-8              | 1-8   |  |  |

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

| UNFACTORED REACTIONS |           |                               |       |           |       |        |       |
|----------------------|-----------|-------------------------------|-------|-----------|-------|--------|-------|
|                      | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS |       |           |       |        |       |
| JT                   | COMBINED  | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |
| 5                    | 323       | 246 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 76 / 0 | 0 / 0 |
| 3                    | 109       | 97 / 0                        | 0 / 0 | 0 / 0     | 0 / 0 | 12 / 0 | 0 / 0 |
| 4                    | 33        | 0 / 0                         | 0 / 0 | 0 / 0     | 0 / 0 | 33 / 0 | 0 / 0 |

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

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

| LOADING               |                           |                           |                        |                            |       |                           |                       |  |  |
|-----------------------|---------------------------|---------------------------|------------------------|----------------------------|-------|---------------------------|-----------------------|--|--|
| TOTAL LOAD CASES: (3) |                           |                           |                        |                            |       |                           |                       |  |  |
| CHORDS                |                           |                           |                        |                            | WEBS  |                           |                       |  |  |
| MEMB.                 | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED LC1 (LC) | MAX. UNBRACED LENGTH FR-TO | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED LC (LC) |  |  |
| FR-TO                 |                           | FROM                      | TO                     |                            | FR-TO |                           |                       |  |  |
| 5-2                   | -409 / 0                  | 0.0                       | 0.0                    | 0.09 (3)                   | 7.81  |                           |                       |  |  |
| 1-2                   | 0 / 39                    | -77.3                     | -77.3                  | 0.18 (1)                   | 10.00 |                           |                       |  |  |
| 2-3                   | -30 / 0                   | -77.3                     | -77.3                  | 0.40 (1)                   | 6.25  |                           |                       |  |  |
| 5-4                   | 0 / 0                     | -17.5                     | -17.5                  | 0.12 (3)                   | 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 (0.03")

CSI: TC=0.40 (2-3:1) , BC=0.12 (4-5:3) , WB=0.00 (n/a:0) , SSI=0.17 (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) | SHEAR    | SECTION   |
|-------|-----------|----------|-----------|
|       | (PSI)     | (PLI)    | (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= 0.26 (2) (INPUT = 0.90 )  
JSI METAL= 0.10 (2) (INPUT = 1.00 )



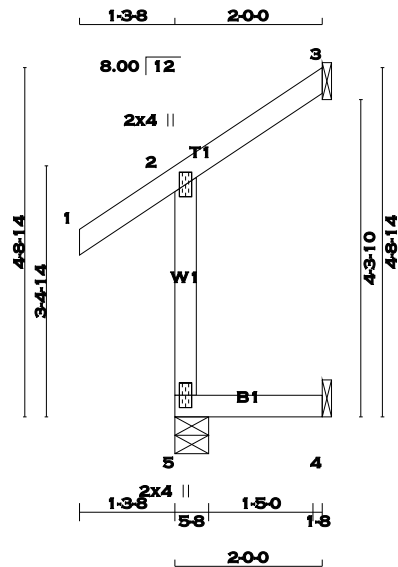
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SCALE = 1:31.3

TOTAL WEIGHT = 4 X 10 = 42 lb [M]

| LUMBER            |        |      |        |     | DESCR. |
|-------------------|--------|------|--------|-----|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER | SPF |        |
| 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.

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

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |
|----|-------------------------|------|---------------------------------|------|-----------|-------|-----------|--|
|    | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     |  |
| 5  | 220                     | 0    | 220                             | 0    | 0         | 5-8   | 5-8       |  |
| 3  | 59                      | 0    | 59                              | 0    | 0         | 1-8   | 1-8       |  |
| 4  | 17                      | 0    | 19                              | 0    | 0         | 1-8   | 1-8       |  |

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

UNFACTORED REACTIONS

| JT | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |           |       |        |       | SOIL |
|----|-----------|---------|-------------------------------|-----------|-------|--------|-------|------|
|    | COMBINED  | SNOW    | LIVE                          | PERM.LIVE | WIND  | DEAD   |       |      |
| 5  | 152       | 121 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 30 / 0 | 0 / 0 |      |
| 3  | 40        | 36 / 0  | 0 / 0                         | 0 / 0     | 0 / 0 | 5 / 0  | 0 / 0 |      |
| 4  | 13        | 0 / 0   | 0 / 0                         | 0 / 0     | 0 / 0 | 13 / 0 | 0 / 0 |      |

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

| MEMB. | CHORDS           |                  | FACTORED |             | WEBS              |         | FACTORED         |         |
|-------|------------------|------------------|----------|-------------|-------------------|---------|------------------|---------|
|       | MAX. FORCE (LBS) | VERT. LOAD (PLF) | MAX. LC1 | MAX. UNBRAC | MEMB. FORCE (LBS) | MAX. LC | MAX. FORCE (LBS) | MAX. LC |
| FR-TO |                  |                  | FROM     | TO          | FR-TO             | LENGTH  |                  |         |
| 5-2   | -201 / 0         | 0.0              | 0.0      | 0.00 (3)    | 7.81              |         |                  |         |
| 1-2   | 0 / 29           | -77.3            | -77.3    | 0.10 (1)    | 10.00             |         |                  |         |
| 2-3   | -10 / 0          | -77.3            | -77.3    | 0.05 (1)    | 10.00             |         |                  |         |
| 5-4   | 0 / 0            | -17.5            | -17.5    | 0.02 (3)    | 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 (4-5:3) , 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) SHEAR SECTION  
(PSI) (PLI) (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.

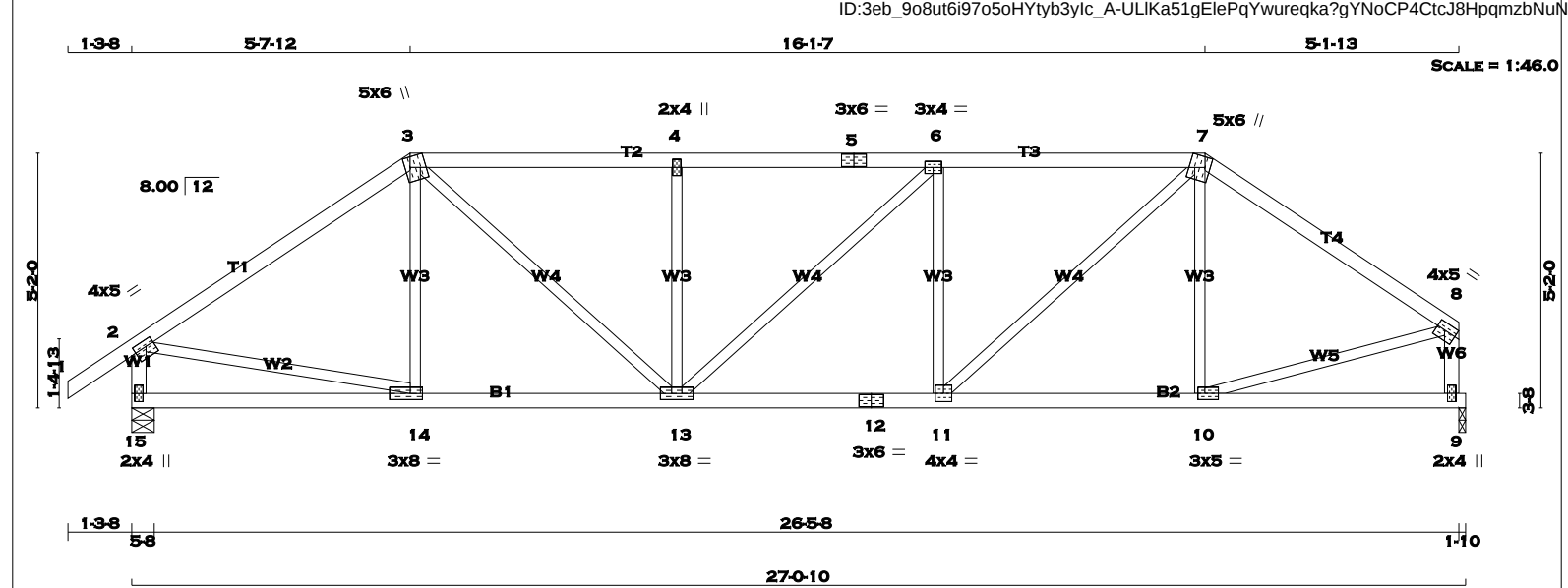
JSI GRIP= 0.13 (2) (INPUT = 0.90 )  
JSI METAL= 0.05 (2) (INPUT = 1.00 )



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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 - 8

2x4

DRY

No.2

SPF

15 - 2

2x4

DRY

No.2

SPF

9 - 8

2x4

DRY

No.2

SPF

15 - 12

2x4

DRY

No.2

SPF

12 - 9

2x4

DRY

No.2

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

DRY: SEASONED LUMBER.

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

BEARINGS

FACTORED

GROSS REACTION

MAXIMUM FACTORED

INPUT

REQRD

JT

VERT

HORZ

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

15

1383

0

1383

0

0

5-8

5-8

9

1276

0

1276

0

0

1-10

1-10

UNFACTORED REACTIONS

1ST LCASE

MAX/MIN. COMPONENT REACTIONS

JT

COMBINED

SNOW

LIVE

PERM.LIVE

WIND

DEAD

SOIL

15

968

691 / 0

0 / 0

0 / 0

0 / 0

277 / 0

0 / 0

9

896

627 / 0

0 / 0

0 / 0

0 / 0

269 / 0

0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 15, 9

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.64 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: (3)

CHORDS

MAX. FACTORED

FACTORED

VERT. LOAD LC1

MAX

MEMB.

FORCE

(LBS)

(PLF)

CSI (LC)

UNBRAC

LENGTH

FR-TO

TO

FR-TO

TO

MEMB.

FORCE

(LBS)

MAX

CSI (LC)

1-2

0 / 29

-77.3

-77.3

0.10 (1)

10.00

14-3

-111 / 57

0.04 (1)

2-3

-1428 / 0

-77.3

-77.3

0.52 (1)

4.83

3-13

0 / 766

0.17 (1)

3-4

-1754 / 0

-77.3

-77.3

0.36 (1)

4.65

13-4

-448 / 0

0.18 (1)

4-5

-1754 / 0

-77.3

-77.3

0.37 (1)

4.64

13-6

0 / 33

0.01 (1)

5-6

-1754 / 0

-77.3

-77.3

0.37 (1)

4.64

11-6

-472 / 0

0.19 (1)

6-7

-1730 / 0

-77.3

-77.3

0.37 (1)

4.68

11-7

0 / 841

0.19 (1)

7-8

-1334 / 0

-77.3

-77.3

0.42 (1)

5.10

10-7

-194 / 27

0.08 (1)

15-2

-1342 / 0

0.0

0.0

0.14 (1)

7.00

2-14

0 / 1208

0.27 (1)

9-8

-1240 / 0

0.0

0.0

0.13 (1)

7.21

10-8

0 / 1148

0.26 (1)

15-14

0 / 0

-17.5

-17.5

0.13 (3)

10.00

14-13

0 / 1184

-17.5

-17.5

0.26 (1)

10.00

13-12

0 / 1730

-17.5

-17.5

0.32 (1)

10.00

12-11

0 / 1730

-17.5

-17.5

0.32 (1)

10.00

11-10

0 / 1104

-17.5

-17.5

0.24 (1)

10.00

10-9

0 / 0

-17.5

-17.5

0.12 (3)

10.00

WEBS

MAX. FACTORED

FACTORED

VERT. LOAD LC1

MAX

MEMB.

FORCE

(LBS)

MAX

CSI (LC)

14-3

-111 / 57

0.04 (1)

3-13

0 / 766

0.17 (1)

13-4

-448 / 0

0.18 (1)

13-6

0 / 33

0.01 (1)

11-6

-472 / 0

0.19 (1)

11-7

0 / 841

0.19 (1)

10-7

-194 / 27

0.08 (1)

2-14

0 / 1208

0.27 (1)

10-8

0 / 1148

0.26 (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 (0.90")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.07")

ALLOWABLE DEFL.(TL)= L/360 (0.90")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.14")

CSI: TC=0.52 (2-3:1), BC=0.32 (11-13:1), WB=0.27 (2-14:1), SSI=0.19 (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) SHEAR SECTION

(PSI) (PLI) (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= 0.90 (10) (INPUT = 0.90 )

JSI METAL= 0.48 (2) (INPUT = 1.00 )



RECEIVED

TOWN OF MILTON

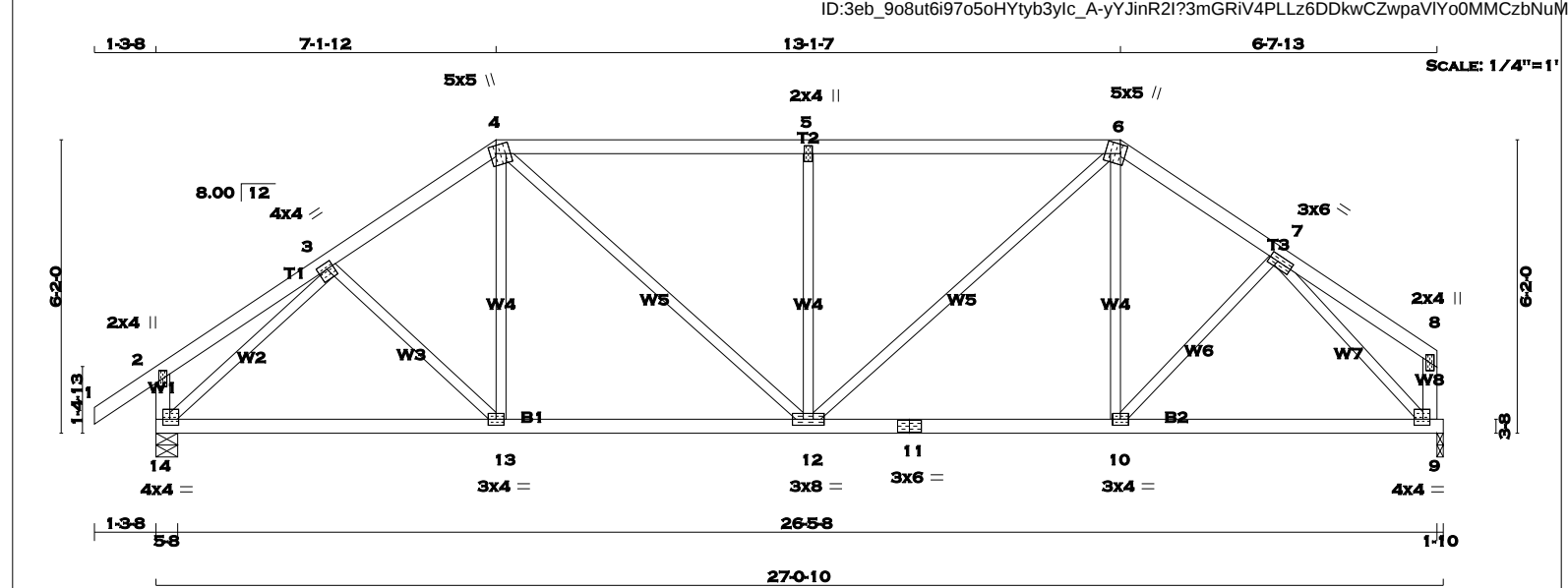
MAR 29, 2017

17-5010

BUILDING DIVISION

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.





|                                                                                                                                                                                                                                                                                                                                   |                         |                                 |              |                      |               |         |           |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |  |  |  |  |  |  |                         |                                 |           |           |    |           |           |              |       |    |        |        |       |     |   |        |        |        |      |  |                    |           |           |                      |               |      |      |    |     |         |       |       |       |         |       |    |     |         |       |       |       |         |       |   |     |         |       |       |       |         |       |        |  |  |  |      |  |  |  |  |               |          |  |  |               |  |  |       |       |            |         |      |       |       |     |  |       |       |          |        |  |       |          |       |  |      |    |        |       |  |  |     |        |       |       |          |       |      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----|--------|-----|--------|-------|-------|----------|-------|------|---------|-----|-----------|-------|-------|----------|------|------|---------|-----|-----------|-------|-------|----------|------|------|----------|-----|-----------|-------|-------|----------|------|------|---------|-----|-----------|-------|-------|----------|------|------|--------|-----|--------|-------|-------|----------|-------|------|---------|------|----------|-----|-----|----------|------|------|-----------|-----|----------|-----|-----|----------|------|-----|-----------|-------|----------|-------|-------|----------|-------|--|--|-------|----------|-------|-------|----------|-------|--|--|-------|----------|-------|-------|----------|-------|--|--|-------|----------|-------|-------|----------|-------|--|--|------|----------|-------|-------|----------|-------|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|
| TOTAL WEIGHT = 2 X 112 = 224 lb                                                                                                                                                                                                                                                                                                   |                         |                                 |              |                      |               |         |           |  |  | [M][F]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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|        |     |        |       |       |          |       |      |         |     |           |       |       |          |      |      |         |     |           |       |       |          |      |      |          |     |           |       |       |          |      |      |         |     |           |       |       |          |      |      |        |     |        |       |       |          |       |      |         |      |          |     |     |          |      |      |           |     |          |     |     |          |      |     |           |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |      |          |       |       |          |       |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |  |  |  |  |  |  |
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR.<br>1 - 4 2x4 DRY No.2 SPF<br>4 - 6 2x4 DRY No.2 SPF<br>6 - 8 2x4 DRY No.2 SPF<br>14 - 2 2x4 DRY No.2 SPF<br>9 - 8 2x4 DRY No.2 SPF<br>14 - 11 2x4 DRY No.2 SPF<br>11 - 9 2x4 DRY No.2 SPF<br><br>ALL WEBS 2x3 DRY No.2 SPF<br>EXCEPT<br><br>DRY: SEASONED LUMBER. |                         |                                 |              |                      |               |         |           |  |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br><table><tr><td></td><td>FACTORED GROSS REACTION</td><td>MAXIMUM FACTORED GROSS REACTION</td><td>INPUT BRG</td><td>REQRD BRG</td></tr><tr><td>JT</td><td>VERT HORZ</td><td>DOWN HORZ</td><td>UPLIFT IN-SX</td><td>IN-SX</td></tr><tr><td>14</td><td>1383 0</td><td>1383 0</td><td>0 5-8</td><td>5-8</td></tr><tr><td>9</td><td>1276 0</td><td>1276 0</td><td>0 1-10</td><td>1-10</td></tr></table><br><b>UNFACTORED REACTIONS</b><br><table><tr><td></td><td>1ST LCASE COMBINED</td><td>MAX. SNOW</td><td>MIN. LIVE</td><td>COMPONENT PERM. LIVE</td><td>RECTIONS WIND</td><td>DEAD</td><td>SOIL</td></tr><tr><td>JT</td><td>968</td><td>691 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>277 / 0</td><td>0 / 0</td></tr><tr><td>14</td><td>968</td><td>691 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>277 / 0</td><td>0 / 0</td></tr><tr><td>9</td><td>896</td><td>627 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>269 / 0</td><td>0 / 0</td></tr></table><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 14, 9<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.76 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.<br><br><b>LOADING</b><br>TOTAL LOAD CASES: (3)<br><table><tr><td colspan="4">CHORDS</td><td colspan="4">WEBS</td></tr><tr><td></td><td>MAX. FACTORED</td><td>FACTORED</td><td></td><td></td><td>MAX. FACTORED</td><td></td><td></td></tr><tr><td>MEMB.</td><td>FORCE</td><td>VERT. LOAD</td><td>LC1 MAX</td><td>MAX.</td><td>MEMB.</td><td>FORCE</td><td>MAX</td></tr><tr><td></td><td>(LBS)</td><td>(PLF)</td><td>CSI (LC)</td><td>UNBRAC</td><td></td><td>(LBS)</td><td>CSI (LC)</td></tr><tr><td>FR-TO</td><td></td><td>FROM</td><td>TO</td><td>LENGTH</td><td>FR-TO</td><td></td><td></td></tr><tr><td>1-2</td><td>0 / 29</td><td>-77.3</td><td>-77.3</td><td>0.10 (1)</td><td>10.00</td><td>3-13</td><td>0 / 51</td></tr><tr><td>2-3</td><td>0 / 16</td><td>-77.3</td><td>-77.3</td><td>0.14 (1)</td><td>10.00</td><td>13-4</td><td>0 / 134</td></tr><tr><td>3-4</td><td>-1410 / 0</td><td>-77.3</td><td>-77.3</td><td>0.13 (1)</td><td>5.37</td><td>4-12</td><td>0 / 506</td></tr><tr><td>4-5</td><td>-1537 / 0</td><td>-77.3</td><td>-77.3</td><td>0.47 (1)</td><td>4.76</td><td>12-5</td><td>-623 / 0</td></tr><tr><td>5-6</td><td>-1537 / 0</td><td>-77.3</td><td>-77.3</td><td>0.47 (1)</td><td>4.76</td><td>12-6</td><td>0 / 579</td></tr><tr><td>6-7</td><td>-1345 / 0</td><td>-77.3</td><td>-77.3</td><td>0.11 (1)</td><td>5.49</td><td>10-6</td><td>0 / 95</td></tr><tr><td>7-8</td><td>0 / 15</td><td>-77.3</td><td>-77.3</td><td>0.12 (1)</td><td>10.00</td><td>10-7</td><td>0 / 104</td></tr><tr><td>14-2</td><td>-215 / 0</td><td>0.0</td><td>0.0</td><td>0.02 (1)</td><td>7.81</td><td>14-3</td><td>-1604 / 0</td></tr><tr><td>9-8</td><td>-102 / 0</td><td>0.0</td><td>0.0</td><td>0.01 (1)</td><td>7.81</td><td>7-9</td><td>-1529 / 0</td></tr><tr><td>14-13</td><td>0 / 1151</td><td>-17.5</td><td>-17.5</td><td>0.30 (1)</td><td>10.00</td><td></td><td></td></tr><tr><td>13-12</td><td>0 / 1160</td><td>-17.5</td><td>-17.5</td><td>0.30 (1)</td><td>10.00</td><td></td><td></td></tr><tr><td>12-11</td><td>0 / 1105</td><td>-17.5</td><td>-17.5</td><td>0.29 (1)</td><td>10.00</td><td></td><td></td></tr><tr><td>11-10</td><td>0 / 1105</td><td>-17.5</td><td>-17.5</td><td>0.29 (1)</td><td>10.00</td><td></td><td></td></tr><tr><td>10-9</td><td>0 / 1033</td><td>-17.5</td><td>-17.5</td><td>0.27 (1)</td><td>10.00</td><td></td><td></td></tr></table> |  |  |  |  |  |  |  |  |  |  | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG | JT | VERT HORZ | DOWN HORZ | UPLIFT IN-SX | IN-SX | 14 | 1383 0 | 1383 0 | 0 5-8 | 5-8 | 9 | 1276 0 | 1276 0 | 0 1-10 | 1-10 |  | 1ST LCASE COMBINED | MAX. SNOW | MIN. LIVE | COMPONENT PERM. LIVE | RECTIONS WIND | DEAD | SOIL | JT | 968 | 691 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 277 / 0 | 0 / 0 | 14 | 968 | 691 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 277 / 0 | 0 / 0 | 9 | 896 | 627 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 269 / 0 | 0 / 0 | CHORDS |  |  |  | WEBS |  |  |  |  | MAX. FACTORED | FACTORED |  |  | MAX. FACTORED |  |  | MEMB. | FORCE | VERT. LOAD | LC1 MAX | MAX. | MEMB. | FORCE | MAX |  | (LBS) | (PLF) | CSI (LC) | UNBRAC |  | (LBS) | CSI (LC) | FR-TO |  | FROM | TO | LENGTH | FR-TO |  |  | 1-2 | 0 / 29 | -77.3 | -77.3 | 0.10 (1) | 10.00 | 3-13 | 0 / 51 | 2-3 | 0 / 16 | -77.3 | -77.3 | 0.14 (1) | 10.00 | 13-4 | 0 / 134 | 3-4 | -1410 / 0 | -77.3 | -77.3 | 0.13 (1) | 5.37 | 4-12 | 0 / 506 | 4-5 | -1537 / 0 | -77.3 | -77.3 | 0.47 (1) | 4.76 | 12-5 | -623 / 0 | 5-6 | -1537 / 0 | -77.3 | -77.3 | 0.47 (1) | 4.76 | 12-6 | 0 / 579 | 6-7 | -1345 / 0 | -77.3 | -77.3 | 0.11 (1) | 5.49 | 10-6 | 0 / 95 | 7-8 | 0 / 15 | -77.3 | -77.3 | 0.12 (1) | 10.00 | 10-7 | 0 / 104 | 14-2 | -215 / 0 | 0.0 | 0.0 | 0.02 (1) | 7.81 | 14-3 | -1604 / 0 | 9-8 | -102 / 0 | 0.0 | 0.0 | 0.01 (1) | 7.81 | 7-9 | -1529 / 0 | 14-13 | 0 / 1151 | -17.5 | -17.5 | 0.30 (1) | 10.00 |  |  | 13-12 | 0 / 1160 | -17.5 | -17.5 | 0.30 (1) | 10.00 |  |  | 12-11 | 0 / 1105 | -17.5 | -17.5 | 0.29 (1) | 10.00 |  |  | 11-10 | 0 / 1105 | -17.5 | -17.5 | 0.29 (1) | 10.00 |  |  | 10-9 | 0 / 1033 | -17.5 | -17.5 | 0.27 (1) | 10.00 |  |  | <b>DESIGN CRITERIA</b><br><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF<br><br><b>SPACING = 24.0 IN. C/C</b><br><br>LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12<br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>(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<br><br>ALLOWABLE DEFL.(LL)= L/360 (0.90")<br>CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")<br>ALLOWABLE DEFL.(TL)= L/360 (0.90")<br>CALCULATED VERT. DEFL.(TL) = L/ 999 (0.11")<br><br>CSI: TC=0.47 (4-5:1), BC=0.30 (12-13:1), WB=0.63 (3-14:1), SSI=0.25 (4-5:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10<br>COMP=1.10 SHEAR=1.10 TENS= 1.10<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.89 (14) (INPUT = 0.90 )<br>JSI METAL= 0.59 (3) (INPUT = 1.00 ) |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                   | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG    | REQRD BRG            |               |         |           |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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|        |     |        |       |       |          |       |      |         |     |           |       |       |          |      |      |         |     |           |       |       |          |      |      |          |     |           |       |       |          |      |      |         |     |           |       |       |          |      |      |        |     |        |       |       |          |       |      |         |      |          |     |     |          |      |      |           |     |          |     |     |          |      |     |           |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |      |          |       |       |          |       |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |  |  |  |  |  |  |
| JT                                                                                                                                                                                                                                                                                                                                | VERT HORZ               | DOWN HORZ                       | UPLIFT IN-SX | IN-SX                |               |         |           |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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| 1-2                                                                                                                                                                                                                                                                                                                               | 0 / 29                  | -77.3                           | -77.3        | 0.10 (1)             | 10.00         | 3-13    | 0 / 51    |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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|        |     |        |       |       |          |       |      |         |     |           |       |       |          |      |      |         |     |           |       |       |          |      |      |          |     |           |       |       |          |      |      |         |     |           |       |       |          |      |      |        |     |        |       |       |          |       |      |         |      |          |     |     |          |      |      |           |     |          |     |     |          |      |     |           |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |      |          |       |       |          |       |  |  |                                                                                                                                                      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| 2-3                                                                                                                                                                                                                                                                                                                               | 0 / 16                  | -77.3                           | -77.3        | 0.14 (1)             | 10.00         | 13-4    | 0 / 134   |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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|        |     |        |       |       |          |       |      |         |     |           |       |       |          |      |      |         |     |           |       |       |          |      |      |          |     |           |       |       |          |      |      |         |     |           |       |       |          |      |      |        |     |        |       |       |          |       |      |         |      |          |     |     |          |      |      |           |     |          |     |     |          |      |     |           |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |      |          |       |       |          |       |  |  |                                                                                                                                                      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| 3-4                                                                                                                                                                                                                                                                                                                               | -1410 / 0               | -77.3                           | -77.3        | 0.13 (1)             | 5.37          | 4-12    | 0 / 506   |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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|        |     |        |       |       |          |       |      |         |     |           |       |       |          |      |      |         |     |           |       |       |          |      |      |          |     |           |       |       |          |      |      |         |     |           |       |       |          |      |      |        |     |        |       |       |          |       |      |         |      |          |     |     |          |      |      |           |     |          |     |     |          |      |     |           |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |      |          |       |       |          |       |  |  |                                                                                                                                                      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| 4-5                                                                                                                                                                                                                                                                                                                               | -1537 / 0               | -77.3                           | -77.3        | 0.47 (1)             | 4.76          | 12-5    | -623 / 0  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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| 5-6                                                                                                                                                                                                                                                                                                                               | -1537 / 0               | -77.3                           | -77.3        | 0.47 (1)             | 4.76          | 12-6    | 0 / 579   |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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| 6-7                                                                                                                                                                                                                                                                                                                               | -1345 / 0               | -77.3                           | -77.3        | 0.11 (1)             | 5.49          | 10-6    | 0 / 95    |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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| 7-8                                                                                                                                                                                                                                                                                                                               | 0 / 15                  | -77.3                           | -77.3        | 0.12 (1)             | 10.00         | 10-7    | 0 / 104   |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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| 14-2                                                                                                                                                                                                                                                                                                                              | -215 / 0                | 0.0                             | 0.0          | 0.02 (1)             | 7.81          | 14-3    | -1604 / 0 |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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|        |     |        |       |       |          |       |      |         |     |           |       |       |          |      |      |         |     |           |       |       |          |      |      |          |     |           |       |       |          |      |      |         |     |           |       |       |          |      |      |        |     |        |       |       |          |       |      |         |      |          |     |     |          |      |      |           |     |          |     |     |          |      |     |           |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |      |          |       |       |          |       |  |  |                                                                                                                                                      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| 9-8                                                                                                                                                                                                                                                                                                                               | -102 / 0                | 0.0                             | 0.0          | 0.01 (1)             | 7.81          | 7-9     | -1529 / 0 |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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|        |     |        |       |       |          |       |      |         |     |           |       |       |          |      |      |         |     |           |       |       |          |      |      |          |     |           |       |       |          |      |      |         |     |           |       |       |          |      |      |        |     |        |       |       |          |       |      |         |      |          |     |     |          |      |      |           |     |          |     |     |          |      |     |           |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |      |          |       |       |          |       |  |  |                                                                                                                                                      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| 14-13                                                                                                                                                                                                                                                                                                                             | 0 / 1151                | -17.5                           | -17.5        | 0.30 (1)             | 10.00         |         |           |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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|        |     |        |       |       |          |       |      |         |     |           |       |       |          |      |      |         |     |           |       |       |          |      |      |          |     |           |       |       |          |      |      |         |     |           |       |       |          |      |      |        |     |        |       |       |          |       |      |         |      |          |     |     |          |      |      |           |     |          |     |     |          |      |     |           |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |       |          |       |       |          |       |  |  |      |          |       |       |          |       |  |  |                                                                                                                                                      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| 13-12                                                                                                                                                                                                                                                                                                                             | 0 / 1160                | -17.5                           | -17.5        | 0.30 (1)             | 10.00         |         |           |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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                                                                                                                                                                                                 |  |  |  |  |  |  |  |  |  |
| 12-11                                                                                                                                                                                                                                                                                                                             | 0 / 1105                | -17.5                           | -17.5        | 0.29 (1)             | 10.00         |         |           |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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                                                                                                                                                                                                 |  |  |  |  |  |  |  |  |  |
| 11-10                                                                                                                                                                                                                                                                                                                             | 0 / 1105                | -17.5                           | -17.5        | 0.29 (1)             | 10.00         |         |           |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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                                                                                                                                                                                                 |  |  |  |  |  |  |  |  |  |
| 10-9                                                                                                                                                                                                                                                                                                                              | 0 / 1033                | -17.5                           | -17.5        | 0.27 (1)             | 10.00         |         |           |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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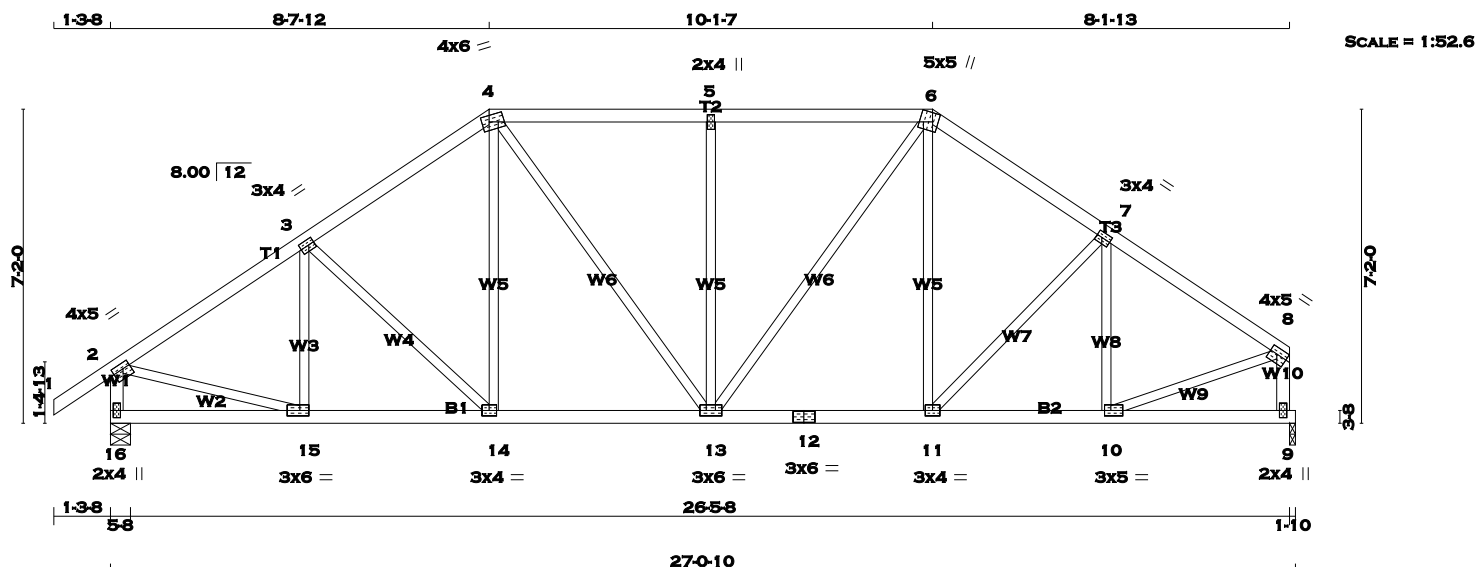
MAR 29, 2017

17-5010

BUILDING DIVISION

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.





| LUMBER                |      |        |        |
|-----------------------|------|--------|--------|
| N. L. G. A. RULES     |      |        |        |
| CHORDS                | SIZE | LUMBER | DESCR. |
| 1 - 4                 | 2x4  | DRY    | No.2   |
| 4 - 6                 | 2x4  | DRY    | No.2   |
| 6 - 8                 | 2x4  | DRY    | No.2   |
| 16 - 2                | 2x4  | DRY    | No.2   |
| 9 - 8                 | 2x4  | DRY    | No.2   |
| 16 - 12               | 2x4  | DRY    | No.2   |
| 12 - 9                | 2x4  | DRY    | No.2   |
| 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 | 5.0 | 1.50 2.00 |
| 3                                                                                | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.50 |
| 4                                                                                | TTWW-m | MT20   | 4.0 | 6.0 | 1.75 2.00 |
| 5                                                                                | TMVW-w | MT20   | 2.0 | 4.0 |           |
| 6                                                                                | TTWW-m | MT20   | 5.0 | 5.0 | 2.50 1.50 |
| 7                                                                                | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.50 |
| 8                                                                                | TMVW-t | MT20   | 4.0 | 5.0 | 1.75 Edge |
| 9                                                                                | BMV1+p | MT20   | 2.0 | 4.0 |           |
| 10                                                                               | BMVW-t | MT20   | 3.0 | 5.0 | 1.50 1.75 |
| 11                                                                               | BMVW-t | MT20   | 3.0 | 4.0 |           |
| 12                                                                               | BS-t   | MT20   | 3.0 | 6.0 |           |
| 13                                                                               | BMVW-t | MT20   | 3.0 | 6.0 |           |
| 14                                                                               | BMVW-t | MT20   | 3.0 | 4.0 |           |
| 15                                                                               | BMVW-t | MT20   | 3.0 | 6.0 | 1.50 2.50 |
| 16                                                                               | 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. |        |        |     |     |           |

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

| BEARINGS                                |          |                                 |       |
|-----------------------------------------|----------|---------------------------------|-------|
| FACTORED GROSS REACTION                 |          | MAXIMUM FACTORED GROSS REACTION |       |
| JT                                      | VERT     | JT                              | HORZ  |
| 16                                      | 1383     | 0                               | 1383  |
| 9                                       | 1276     | 0                               | 1276  |
| UNFACTORED REACTIONS                    |          |                                 |       |
| 1ST LCASE MAX./MIN. COMPONENT REACTIONS |          |                                 |       |
| JT                                      | COMBINED | SNOW                            | LIVE  |
| 16                                      | 968      | 691 / 0                         | 0 / 0 |
| 9                                       | 896      | 627 / 0                         | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 16, 9

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.24 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: (3) |                           |       |                           |
| CHORDS                |                           | WEBS  |                           |
| MEMB.                 | MAX. FACTORED FORCE (LBS) | MEMB. | MAX. FACTORED FORCE (LBS) |
| FR-TO                 | FROM TO                   | FR-TO | FROM TO                   |
| 1-2                   | 0 / 29                    | 15-3  | -219 / 7                  |
| 2-3                   | -1443 / 0                 | 3-14  | -169 / 0                  |
| 3-4                   | -1339 / 0                 | 14-4  | 0 / 199                   |
| 4-5                   | -1288 / 0                 | 4-13  | 0 / 321                   |
| 5-6                   | -1288 / 0                 | 13-5  | -477 / 0                  |
| 6-7                   | -1297 / 0                 | 13-6  | 0 / 380                   |
| 7-8                   | -1318 / 0                 | 11-6  | 0 / 136                   |
| 16-2                  | -1348 / 0                 | 11-7  | -76 / 0                   |
| 9-8                   | -1244 / 0                 | 10-7  | -303 / 0                  |
|                       |                           | 2-15  | 0 / 1253                  |
|                       |                           | 10-8  | 0 / 1175                  |
| 16-15                 | 0 / 0                     |       | 0.28 (1)                  |
| 15-14                 | 0 / 1218                  |       | 0.26 (1)                  |
| 14-13                 | 0 / 1097                  |       |                           |
| 13-12                 | 0 / 1062                  |       |                           |
| 12-11                 | 0 / 1062                  |       |                           |
| 11-10                 | 0 / 1113                  |       |                           |
| 10-9                  | 0 / 0                     |       |                           |

| 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 (0.90")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (0.90")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.09")

CSI: TC=0.27 (4-5:1), BC=0.24 (14-15:1), WB=0.43 (5-13:1), 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) | SHEAR   | SECTION |         |           |
| (PSI)       | (PLI)     | (PSI)   | (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.

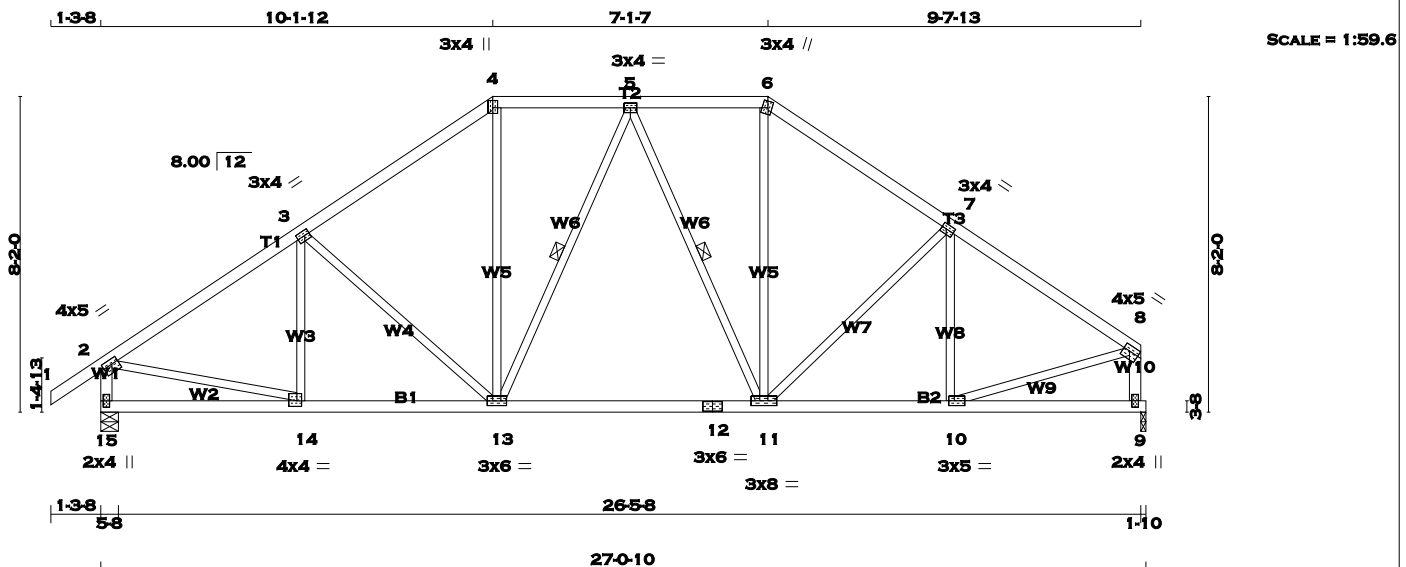
JSI GRIP= 0.90 (10) (INPUT = 0.90 )  
JSI METAL= 0.48 (2) (INPUT = 1.00 )



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| LUMBER                |      | N. L. G. A. RULES |      | LUMBER | DESCR. |
|-----------------------|------|-------------------|------|--------|--------|
| CHORDS                | SIZE |                   |      |        |        |
| 1 - 4                 | 2x4  | DRY               | No.2 | SPF    | SPF    |
| 4 - 6                 | 2x4  | DRY               | No.2 |        |        |
| 6 - 8                 | 2x4  | DRY               | No.2 |        |        |
| 15- 2                 | 2x4  | DRY               | No.2 |        |        |
| 9 - 8                 | 2x4  | DRY               | No.2 |        |        |
| 15- 12                | 2x4  | DRY               | No.2 |        |        |
| 12- 9                 | 2x4  | DRY               | No.2 |        |        |
| ALL WEBS<br>EXCEPT    | 2x3  | DRY               | No.2 | SPF    | SPF    |
| DRY: SEASONED LUMBER. |      |                   |      |        |        |

| PLATES (table is in inches)                                                      |        |        |     |     |           |
|----------------------------------------------------------------------------------|--------|--------|-----|-----|-----------|
| JT                                                                               | TYPE   | PLATES | W   | LEN | X         |
| 2                                                                                | TMVW-t | MT20   | 4.0 | 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 |           |
| 6                                                                                | TTW+m  | MT20   | 3.0 | 4.0 | 2.00 1.25 |
| 7                                                                                | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.50 |
| 8                                                                                | TMVW-t | MT20   | 4.0 | 5.0 | 1.75 Edge |
| 9                                                                                | BMV1+p | MT20   | 2.0 | 4.0 |           |
| 10                                                                               | BMVW-t | MT20   | 3.0 | 5.0 | 1.50 1.75 |
| 11                                                                               | BMVW-t | MT20   | 3.0 | 8.0 |           |
| 12                                                                               | BS-t   | MT20   | 3.0 | 6.0 |           |
| 13                                                                               | BMVW-t | MT20   | 3.0 | 6.0 |           |
| 14                                                                               | BMVW-t | MT20   | 4.0 | 4.0 | 1.75 1.50 |
| 15                                                                               | 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. |        |        |     |     |           |



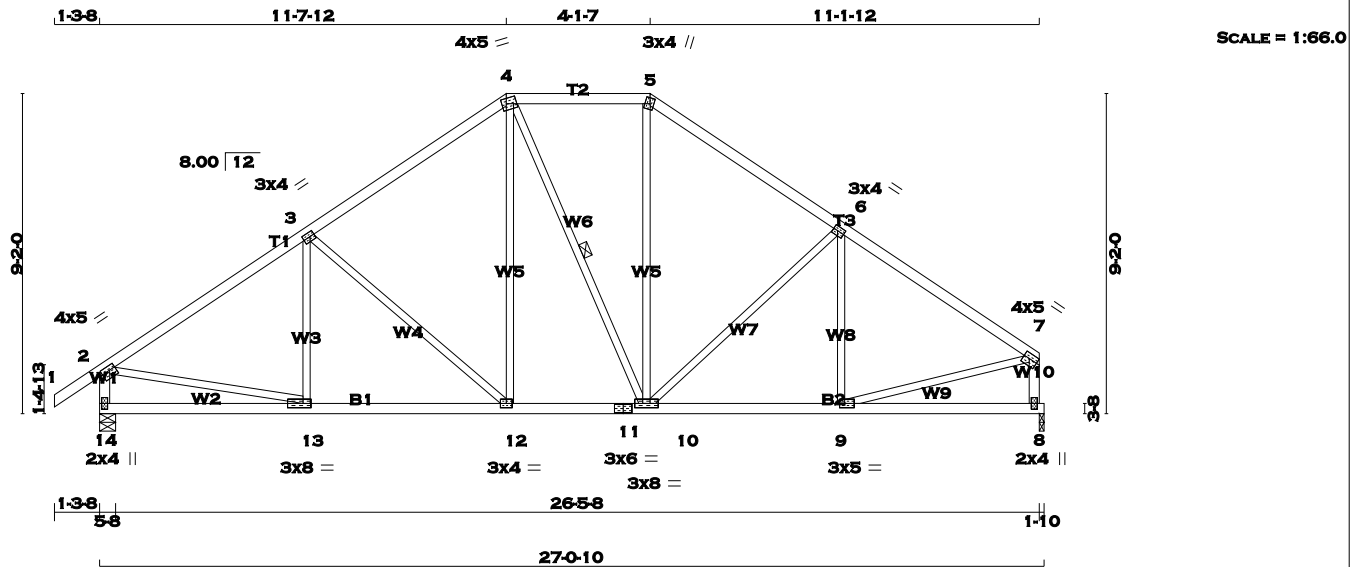
| DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER                                                                                                                                |                           |                           |                |                                 |           |                           |                           |           |                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------|----------------|---------------------------------|-----------|---------------------------|---------------------------|-----------|---------------------------|
| BEARINGS                                                                                                                                                                                                                     |                           |                           |                |                                 |           |                           |                           |           |                           |
|                                                                                                                                                                                                                              |                           | FACTORED GROSS REACTION   |                | MAXIMUM FACTORED GROSS REACTION |           | INPUT BRG                 |                           | REQRD BRG |                           |
| JT                                                                                                                                                                                                                           |                           | VERT                      | HORZ           | DOWN                            | HORZ      | UPLIFT                    | IN-SX                     | IN-SX     |                           |
| 15                                                                                                                                                                                                                           |                           | 1383                      | 0              | 1383                            | 0         | 0                         | 5-8                       | 5-8       |                           |
| 9                                                                                                                                                                                                                            |                           | 1276                      | 0              | 1276                            | 0         | 0                         | 1-10                      | 1-10      |                           |
| UNFACTORED REACTIONS                                                                                                                                                                                                         |                           |                           |                |                                 |           |                           |                           |           |                           |
|                                                                                                                                                                                                                              |                           | 1ST LCASE                 |                | MAX./MIN. COMPONENT REACTIONS   |           |                           |                           |           |                           |
| JT                                                                                                                                                                                                                           |                           | COMBINED                  | SNOW           | LIVE                            | PERM.LIVE | WIND                      | DEAD                      | SOIL      |                           |
| 15                                                                                                                                                                                                                           |                           | 968                       | 691 / 0        | 0 / 0                           | 0 / 0     | 0 / 0                     | 277 / 0                   | 0 / 0     |                           |
| 9                                                                                                                                                                                                                            |                           | 896                       | 627 / 0        | 0 / 0                           | 0 / 0     | 0 / 0                     | 269 / 0                   | 0 / 0     |                           |
| BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 15, 9                                                                                                                                                                  |                           |                           |                |                                 |           |                           |                           |           |                           |
| BRACING                                                                                                                                                                                                                      |                           |                           |                |                                 |           |                           |                           |           |                           |
| TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.12 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 5-13, 5-11. DBS = 20-0-0. CBF = 26 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: (3)                                                                                                                                                                                                        |                           |                           |                |                                 |           |                           |                           |           |                           |
| CHORDS                                                                                                                                                                                                                       |                           |                           |                |                                 | WEBS      |                           |                           |           |                           |
| MEMB.                                                                                                                                                                                                                        | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (LBS) | MAX LC1 (LBS)  | MAX UNBRACED LENGTH (LBS)       | MEMB.     | MAX. FACTORED FORCE (LBS) | MAX UNBRACED LENGTH (LBS) | MEMB.     | MAX. FACTORED FORCE (LBS) |
| FR-TO                                                                                                                                                                                                                        |                           | FROM                      | TO             |                                 | FR-TO     |                           |                           |           |                           |
| 1-2                                                                                                                                                                                                                          | 0 / 29                    | -77.3                     | -77.3 0.10 (1) | 10.00                           | 14-3      | -168 / 29                 | 0.06 (1)                  |           |                           |
| 2-3                                                                                                                                                                                                                          | -1461 / 0                 | -77.3                     | -77.3 0.29 (1) | 5.12                            | 3-13      | -276 / 0                  | 0.24 (1)                  |           |                           |
| 3-4                                                                                                                                                                                                                          | -1267 / 0                 | -77.3                     | -77.3 0.27 (1) | 5.42                            | 13-4      | 0 / 434                   | 0.10 (1)                  |           |                           |
| 4-5                                                                                                                                                                                                                          | -1037 / 0                 | -77.3                     | -77.3 0.12 (1) | 6.04                            | 13-5      | -153 / 0                  | 0.08 (1)                  |           |                           |
| 5-6                                                                                                                                                                                                                          | -1016 / 0                 | -77.3                     | -77.3 0.12 (1) | 6.08                            | 5-11      | -205 / 0                  | 0.10 (1)                  |           |                           |
| 6-7                                                                                                                                                                                                                          | -1241 / 0                 | -77.3                     | -77.3 0.25 (1) | 5.50                            | 11-6      | 0 / 427                   | 0.10 (1)                  |           |                           |
| 7-8                                                                                                                                                                                                                          | -1352 / 0                 | -77.3                     | -77.3 0.25 (1) | 5.32                            | 11-7      | -188 / 0                  | 0.16 (1)                  |           |                           |
| 15-2                                                                                                                                                                                                                         | -1343 / 0                 | 0.0                       | 0.0 0.14 (1)   | 6.99                            | 10-7      | -244 / 2                  | 0.09 (1)                  |           |                           |
| 9-8                                                                                                                                                                                                                          | -1239 / 0                 | 0.0                       | 0.0 0.13 (1)   | 7.22                            | 2-14      | 0 / 1263                  | 0.28 (1)                  |           |                           |
|                                                                                                                                                                                                                              |                           |                           |                |                                 | 10-8      | 0 / 1191                  | 0.27 (1)                  |           |                           |
| 15-14                                                                                                                                                                                                                        | 0 / 0                     | -17.5                     | -17.5 0.10 (3) | 10.00                           |           |                           |                           |           |                           |
| 14-13                                                                                                                                                                                                                        | 0 / 1237                  | -17.5                     | -17.5 0.28 (1) | 10.00                           |           |                           |                           |           |                           |
| 13-12                                                                                                                                                                                                                        | 0 / 1098                  | -17.5                     | -17.5 0.25 (1) | 10.00                           |           |                           |                           |           |                           |
| 12-11                                                                                                                                                                                                                        | 0 / 1098                  | -17.5                     | -17.5 0.25 (1) | 10.00                           |           |                           |                           |           |                           |
| 11-10                                                                                                                                                                                                                        | 0 / 1145                  | -17.5                     | -17.5 0.26 (1) | 10.00                           |           |                           |                           |           |                           |
| 10-9                                                                                                                                                                                                                         | 0 / 0                     | -17.5                     | -17.5 0.09 (3) | 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                                                                             |             |               |           |     |      |     |  |  |  |
| 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 (0.90")                                                                 |             |               |           |     |      |     |  |  |  |
| CALCULATED VERT. DEFL.(LL) = L/999 (0.04")                                                         |             |               |           |     |      |     |  |  |  |
| ALLOWABLE DEFL.(TL)= L/360 (0.90")                                                                 |             |               |           |     |      |     |  |  |  |
| CALCULATED VERT. DEFL.(TL) = L/999 (0.11")                                                         |             |               |           |     |      |     |  |  |  |
| CSI: TC=0.29 (2-3:1), BC=0.28 (13-14:1), WB=0.28 (2-14:1), SSI=0.16 (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)                                                                                    | SHEAR (PSI) | 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= 0.90 (4) (INPUT = 0.90 )                                                                 |             |               |           |     |      |     |  |  |  |
| JSI METAL= 0.49 (2) (INPUT = 1.00 )                                                                |             |               |           |     |      |     |  |  |  |

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TOTAL WEIGHT = 2 X 122 = 244 lb  
[M][F]

| LUMBER                |      |     |        |        |
|-----------------------|------|-----|--------|--------|
| N. L. G. A. RULES     |      |     |        |        |
| CHORDS                | SIZE |     | LUMBER | DESCR. |
| 1 - 4                 | 2x4  | DRY | No.2   | SPF    |
| 4 - 5                 | 2x4  | DRY | No.2   | SPF    |
| 5 - 7                 | 2x4  | DRY | No.2   | SPF    |
| 14 - 2                | 2x4  | DRY | No.2   | SPF    |
| 8 - 7                 | 2x4  | DRY | No.2   | SPF    |
| 14 - 11               | 2x4  | DRY | No.2   | SPF    |
| 11 - 8                | 2x4  | DRY | No.2   | SPF    |
| ALL WEBS              |      | 2x3 | DRY    | No.2   |
| EXCEPT                |      |     |        | SPF    |
| DRY: SEASONED LUMBER. |      |     |        |        |

| PLATES (table is in inches) |        |        |     |     |      |      |
|-----------------------------|--------|--------|-----|-----|------|------|
| JT                          | TYPE   | PLATES | W   | LEN | Y    | X    |
| 2                           | TMVW-t | MT20   | 4.0 | 5.0 | 1.50 | 2.00 |
| 3                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 4                           | TTWW-m | MT20   | 4.0 | 5.0 | 1.75 | 1.50 |
| 5                           | TTWW-m | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 6                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 7                           | TMVW-t | MT20   | 4.0 | 5.0 | 1.75 | Edge |
| 8                           | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 9                           | BMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 1.75 |
| 10                          | BMVW-t | MT20   | 3.0 | 8.0 |      |      |
| 11                          | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| 12                          | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 13                          | BMVW-t | MT20   | 3.0 | 8.0 | 1.50 | 2.75 |
| 14                          | 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.

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

| BEARINGS |                | FACTORED |      | MAXIMUM FACTORED |      | INPUT  |       | REQRD |       |
|----------|----------------|----------|------|------------------|------|--------|-------|-------|-------|
| JT       | GROSS REACTION | DOWN     | HORZ | DOWN             | HORZ | UPLIFT | IN-SX | BRG   | IN-SX |
| 14       | 1383           | 0        | 1383 | 0                | 0    | 5-8    | 5-8   |       |       |
| 8        | 1276           | 0        | 1276 | 0                | 0    | 1-10   | 1-10  |       |       |

| UNFACTORED REACTIONS |           |          |           |           |       |         |       |
|----------------------|-----------|----------|-----------|-----------|-------|---------|-------|
| JT                   | 1ST LCASE | MAX/MIN. | COMPONENT | REACTIONS |       |         |       |
| 14                   | 968       | 691 / 0  | 0 / 0     | 0 / 0     | 0 / 0 | 277 / 0 | 0 / 0 |
| 8                    | 896       | 627 / 0  | 0 / 0     | 0 / 0     | 0 / 0 | 269 / 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 = 4.99 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 4-10. DBS = 20-0-0, CBF = 3 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: (3)

| CHORDS |                           |                           |                           | WEBS  |                           |                           |          |
|--------|---------------------------|---------------------------|---------------------------|-------|---------------------------|---------------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC) |          |
| FR-TO  |                           | FROM TO                   |                           | FR-TO |                           |                           |          |
| 1-2    | 0 / 29                    | -77.3 -77.3               | 0.10 (1)                  | 10.00 | 13-3                      | -110 / 67                 | 0.05 (1) |
| 2-3    | -1468 / 0                 | -77.3 -77.3               | 0.39 (1)                  | 4.99  | 3-12                      | -390 / 0                  | 0.47 (1) |
| 3-4    | -1176 / 0                 | -77.3 -77.3               | 0.36 (1)                  | 5.45  | 12-4                      | 0 / 335                   | 0.08 (1) |
| 4-5    | -945 / 0                  | -77.3 -77.3               | 0.18 (1)                  | 6.17  | 4-10                      | -25 / 0                   | 0.02 (1) |
| 5-6    | -1163 / 0                 | -77.3 -77.3               | 0.33 (1)                  | 5.52  | 10-5                      | 0 / 312                   | 0.07 (1) |
| 6-7    | -1372 / 0                 | -77.3 -77.3               | 0.35 (1)                  | 5.17  | 10-6                      | -306 / 0                  | 0.36 (1) |
| 14-2   | -1340 / 0                 | 0.0 0.0                   | 0.14 (1)                  | 7.00  | 9-6                       | -180 / 42                 | 0.08 (1) |
| 8-7    | -1236 / 0                 | 0.0 0.0                   | 0.13 (1)                  | 7.22  | 2-13                      | 0 / 1267                  | 0.29 (1) |
|        |                           |                           |                           |       | 9-7                       | 0 / 1201                  | 0.27 (1) |
| 14-13  | 0 / 0                     | -17.5 -17.5               | 0.15 (3)                  | 10.00 |                           |                           |          |
| 13-12  | 0 / 1246                  | -17.5 -17.5               | 0.28 (1)                  | 10.00 |                           |                           |          |
| 12-11  | 0 / 956                   | -17.5 -17.5               | 0.20 (1)                  | 10.00 |                           |                           |          |
| 11-10  | 0 / 956                   | -17.5 -17.5               | 0.20 (1)                  | 10.00 |                           |                           |          |
| 10-9   | 0 / 1165                  | -17.5 -17.5               | 0.25 (1)                  | 10.00 |                           |                           |          |
| 9-8    | 0 / 0                     | -17.5 -17.5               | 0.14 (3)                  | 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

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 (0.90")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (0.90")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.09")

CSI: TC=0.39 (2-3:1), BC=0.28 (12-13:1), WB=0.47 (3-12:1), SSI=0.18 (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) SHEAR SECTION  
(PSI) (PLI) (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.

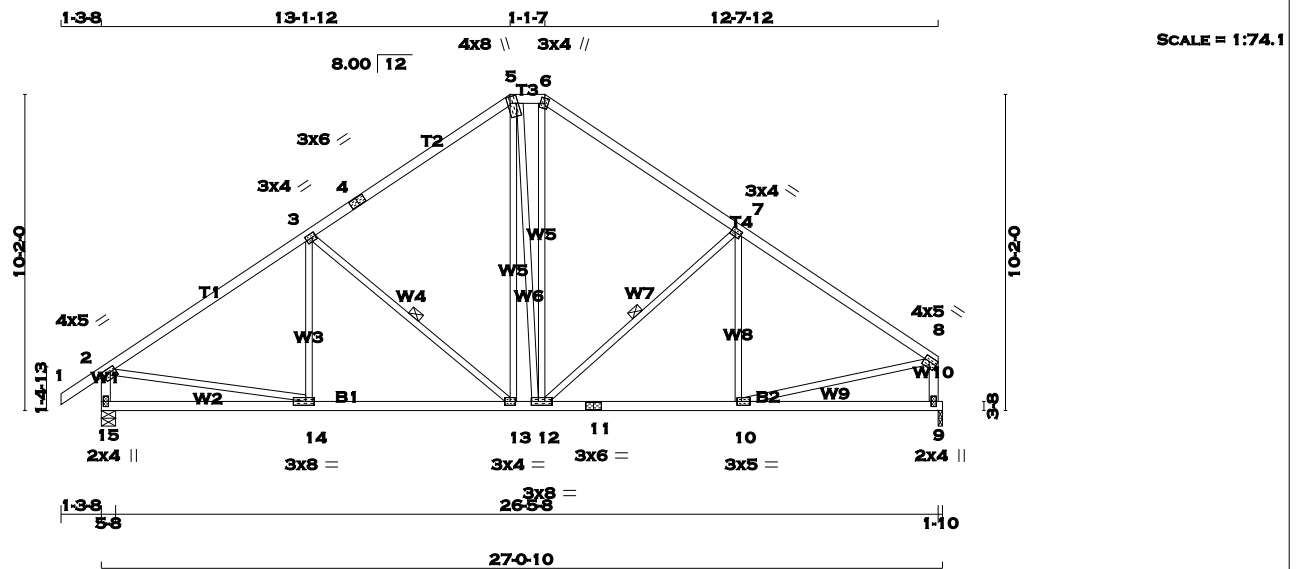
JSI GRIP= 0.90 (10) (INPUT = 0.90)  
JSI METAL= 0.50 (2) (INPUT = 1.00)



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TOTAL WEIGHT = 2 X 128 = 256 lb

[M][F]

| LUMBER          |      |        |        | N. L. G. A. RULES |  |
|-----------------|------|--------|--------|-------------------|--|
| CHORDS          | SIZE | LUMBER | DESCR. |                   |  |
| 1 - 4           | 2x4  | DRY    | No.2   | SPF               |  |
| 4 - 5           | 2x4  | DRY    | No.2   | SPF               |  |
| 5 - 6           | 2x4  | DRY    | No.2   | SPF               |  |
| 6 - 8           | 2x4  | DRY    | No.2   | SPF               |  |
| 15 - 2          | 2x4  | DRY    | No.2   | SPF               |  |
| 9 - 8           | 2x4  | DRY    | No.2   | SPF               |  |
| 15 - 11         | 2x4  | DRY    | No.2   | SPF               |  |
| 11 - 9          | 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 | 5.0 | 1.50 2.00 |
| 3                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.50 |
| 4                           | TS-t   | MT20   | 3.0 | 6.0 |           |
| 5                           | TTWV+m | MT20   | 4.0 | 8.0 | 2.50 1.00 |
| 6                           | TTW+m  | MT20   | 3.0 | 4.0 | 2.00 1.25 |
| 7                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.50 |
| 8                           | TMVW-t | MT20   | 4.0 | 5.0 | 1.75 Edge |
| 9                           | BMV1+p | MT20   | 2.0 | 4.0 |           |
| 10                          | BMVW-t | MT20   | 3.0 | 5.0 | 1.50 1.75 |
| 11                          | BS-t   | MT20   | 3.0 | 6.0 |           |
| 12                          | BMVW-t | MT20   | 3.0 | 8.0 |           |
| 13                          | BMVW-t | MT20   | 3.0 | 4.0 |           |
| 14                          | BMVW-t | MT20   | 3.0 | 8.0 | 1.50 3.25 |
| 15                          | 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.

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

| FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |        | REQRD BRG |       |
|-------------------------|------|---------------------------------|------|-----------|--------|-----------|-------|
| JT                      | VERT | HORZ                            | DOWN | HORZ      | UPLIFT | IN-SX     | IN-SX |
| 15                      | 1383 | 0                               | 1383 | 0         | 0      | 5-8       | 5-8   |
| 9                       | 1276 | 0                               | 1276 | 0         | 0      | 1-10      | 1-10  |

#### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX/MIN. COMPONENT REACTIONS |       | PERM. LIVE |       | WIND    |       | DEAD |          | SOIL    |       |
|-----------|----------|------------------------------|-------|------------|-------|---------|-------|------|----------|---------|-------|
| JT        | COMBINED | SNOW                         | LIVE  | PERM. LIVE | WIND  | DEAD    | SOIL  | JT   | COMBINED | SNOW    | LIVE  |
| 15        | 968      | 691 / 0                      | 0 / 0 | 0 / 0      | 0 / 0 | 277 / 0 | 0 / 0 | 15   | 968      | 691 / 0 | 0 / 0 |
| 9         | 896      | 627 / 0                      | 0 / 0 | 0 / 0      | 0 / 0 | 269 / 0 | 0 / 0 | 9    | 896      | 627 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 15, 9

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.82 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 3-13, 7-12. DBS = 20-0-0. CBF = 62 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: (3)

| C H O R D S |                           |                           |                                     | W E B S |                           |                                     |                                     |
|-------------|---------------------------|---------------------------|-------------------------------------|---------|---------------------------|-------------------------------------|-------------------------------------|
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED VERT. LOAD (LC1) (LC) | MEMB.   | MAX. FACTORED FORCE (LBS) | MAX. FACTORED VERT. LOAD (LC1) (LC) | MAX. FACTORED VERT. LOAD (LC1) (LC) |
| FR-TO       |                           | FROM TO                   |                                     | FR-TO   |                           | FROM TO                             |                                     |
| 1-2         | 0 / 29                    | -77.3 -77.3               | 0.10 (1)                            | 10.00   | 14-3                      | -67 / 92                            | 0.04 (1)                            |
| 2-3         | -1464 / 0                 | -77.3 -77.3               | 0.51 (1)                            | 4.82    | 3-13                      | -492 / 0                            | 0.25 (1)                            |
| 3-4         | -1081 / 0                 | -77.3 -77.3               | 0.47 (1)                            | 5.46    | 13-5                      | 0 / 343                             | 0.08 (1)                            |
| 4-5         | -1081 / 0                 | -77.3 -77.3               | 0.47 (1)                            | 5.46    | 5-12                      | 0 / 9                               | 0.00 (1)                            |
| 5-6         | -874 / 0                  | -77.3 -77.3               | 0.02 (1)                            | 6.25    | 12-6                      | 0 / 359                             | 0.08 (1)                            |
| 6-7         | -1081 / 0                 | -77.3 -77.3               | 0.43 (1)                            | 5.52    | 12-7                      | -407 / 0                            | 0.20 (1)                            |
| 7-8         | -1378 / 0                 | -77.3 -77.3               | 0.46 (1)                            | 5.00    | 10-7                      | -136 / 67                           | 0.08 (1)                            |
| 15-2        | -1336 / 0                 | 0.0                       | 0.0 0.14 (1)                        | 7.00    | 2-14                      | 0 / 1262                            | 0.28 (1)                            |
| 9-8         | -1230 / 0                 | 0.0                       | 0.0 0.13 (1)                        | 7.23    | 10-8                      | 0 / 1201                            | 0.27 (1)                            |
| 15-14       | 0 / 0                     | -17.5 -17.5               | 0.19 (3)                            | 10.00   |                           |                                     |                                     |
| 14-13       | 0 / 1246                  | -17.5 -17.5               | 0.30 (1)                            | 10.00   |                           |                                     |                                     |
| 13-12       | 0 / 873                   | -17.5 -17.5               | 0.22 (1)                            | 10.00   |                           |                                     |                                     |
| 12-11       | 0 / 1173                  | -17.5 -17.5               | 0.27 (1)                            | 10.00   |                           |                                     |                                     |
| 11-10       | 0 / 1173                  | -17.5 -17.5               | 0.27 (1)                            | 10.00   |                           |                                     |                                     |
| 10-9        | 0 / 0                     | -17.5 -17.5               | 0.17 (3)                            | 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

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 (0.90")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (0.90")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

CSI: TC=0.51 (2-3:1), BC=0.30 (13-14:1), WB=0.28 (2-14:1), SSI=0.21 (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) | SHEAR | SECTION | (PSI) | (PLI)     |
| MT20        | 618       | 354   | 1667    | 822   | 2284 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

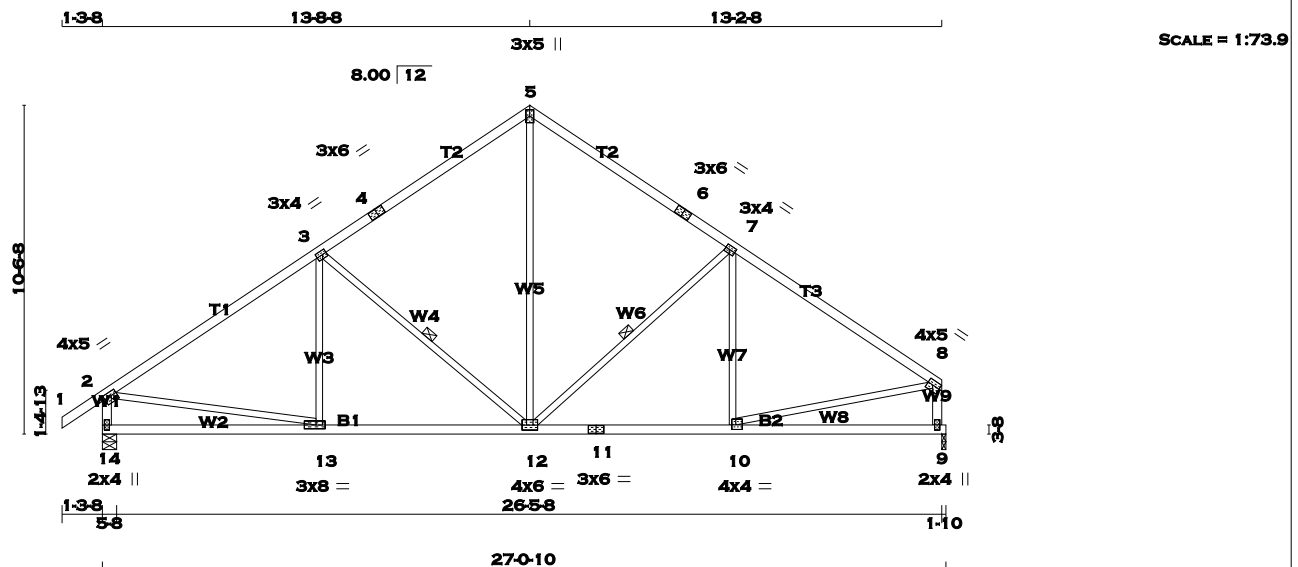
JSI GRIP= 0.90 (10) (INPUT = 0.90)  
JSI METAL= 0.50 (2) (INPUT = 1.00)



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TOTAL WEIGHT = 2 X 114 = 228 lb

[M][F]

| LUMBER            |      |        |        |
|-------------------|------|--------|--------|
| N. L. G. A. RULES |      |        |        |
| CHORDS            | SIZE | LUMBER | DESCR. |
| 1 - 4             | 2x4  | DRY    | No.2   |
| 4 - 5             | 2x4  | DRY    | No.2   |
| 5 - 6             | 2x4  | DRY    | No.2   |
| 6 - 8             | 2x4  | DRY    | No.2   |
| 14 - 2            | 2x4  | DRY    | No.2   |
| 9 - 8             | 2x4  | DRY    | No.2   |
| 14 - 11           | 2x4  | DRY    | No.2   |
| 11 - 9            | 2x4  | DRY    | No.2   |

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |        |        |     |     |      |      |
|-----------------------------|--------|--------|-----|-----|------|------|
| JT                          | TYPE   | PLATES | W   | LEN | Y    | X    |
| 2                           | TMVW-t | MT20   | 4.0 | 5.0 | 1.50 | 2.00 |
| 3                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 4                           | TS-t   | MT20   | 3.0 | 6.0 |      |      |
| 5                           | TTW+p  | MT20   | 3.0 | 5.0 |      |      |
| 6                           | TS-t   | MT20   | 3.0 | 6.0 |      |      |
| 7                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 8                           | TMVW-t | MT20   | 4.0 | 5.0 | 1.75 | Edge |
| 9                           | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 10                          | BMVW-t | MT20   | 4.0 | 4.0 | 1.75 | 1.50 |
| 11                          | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| 12                          | BMVW-t | MT20   | 4.0 | 6.0 |      |      |
| 13                          | BMVW-t | MT20   | 3.0 | 8.0 | 1.50 | 3.50 |
| 14                          | 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.

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

| BEARINGS                |      |                                 |      |
|-------------------------|------|---------------------------------|------|
| FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      |
| JT                      | VERT | DOWN                            | HORZ |
| 14                      | 1383 | 0                               | 1383 |
| 9                       | 1276 | 0                               | 1276 |

| UNFACTORED REACTIONS |          |                               |       |           |       |         |       |
|----------------------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| 1ST LCASE            |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
| JT                   | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 14                   | 968      | 691 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 277 / 0 | 0 / 0 |
| 9                    | 896      | 627 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 269 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 14, 9

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.75 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 3-12, 7-12. 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: (3)

| CHORDS |                           |                           |                           | WEBS     |                           |                           |          |
|--------|---------------------------|---------------------------|---------------------------|----------|---------------------------|---------------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) | MEMB.    | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC) |          |
| FR-TO  |                           | FROM TO                   |                           | FR-TO    |                           |                           |          |
| 1-2    | 0 / 29                    | -77.3 -77.3               | 0.10 (1)                  | 10.00    | 13-3                      | -59 / 97                  | 0.03 (1) |
| 2-3    | -1458 / 0                 | -77.3 -77.3               | 0.56 (1)                  | 4.75     | 3-12                      | -520 / 0                  | 0.28 (1) |
| 3-4    | -1053 / 0                 | -77.3 -77.3               | 0.51 (1)                  | 5.44     | 12-5                      | 0 / 744                   | 0.17 (1) |
| 4-5    | -1053 / 0                 | -77.3 -77.3               | 0.51 (1)                  | 5.44     | 12-7                      | -443 / 0                  | 0.23 (1) |
| 5-6    | -1052 / 0                 | -77.3 -77.3               | 0.47 (1)                  | 5.52     | 10-7                      | -119 / 74                 | 0.07 (1) |
| 6-7    | -1052 / 0                 | -77.3 -77.3               | 0.47 (1)                  | 5.52     | 2-13                      | 0 / 1257                  | 0.28 (1) |
| 7-8    | -1377 / 0                 | -77.3 -77.3               | 0.51 (1)                  | 4.94     | 10-8                      | 0 / 1200                  | 0.27 (1) |
| 14-2   | -1333 / 0                 | 0.0                       | 0.0                       | 14 (1)   | 7.02                      |                           |          |
| 9-8    | -1228 / 0                 | 0.0                       | 0.0                       | 0.13 (1) | 7.23                      |                           |          |
| 14-13  | 0 / 0                     | -17.5 -17.5               | 0.20 (3)                  | 10.00    |                           |                           |          |
| 13-12  | 0 / 1243                  | -17.5 -17.5               | 0.30 (1)                  | 10.00    |                           |                           |          |
| 12-11  | 0 / 1174                  | -17.5 -17.5               | 0.29 (1)                  | 10.00    |                           |                           |          |
| 11-10  | 0 / 1174                  | -17.5 -17.5               | 0.29 (1)                  | 10.00    |                           |                           |          |
| 10-9   | 0 / 0                     | -17.5 -17.5               | 0.19 (3)                  | 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

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 (0.90")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (0.90")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

CSI: TC=0.56 (2-3:1), BC=0.30 (12-13:1), WB=0.28 (2-13:1), SSI=0.22 (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) SHEAR SECTION  
(PSI) (PLI) (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.

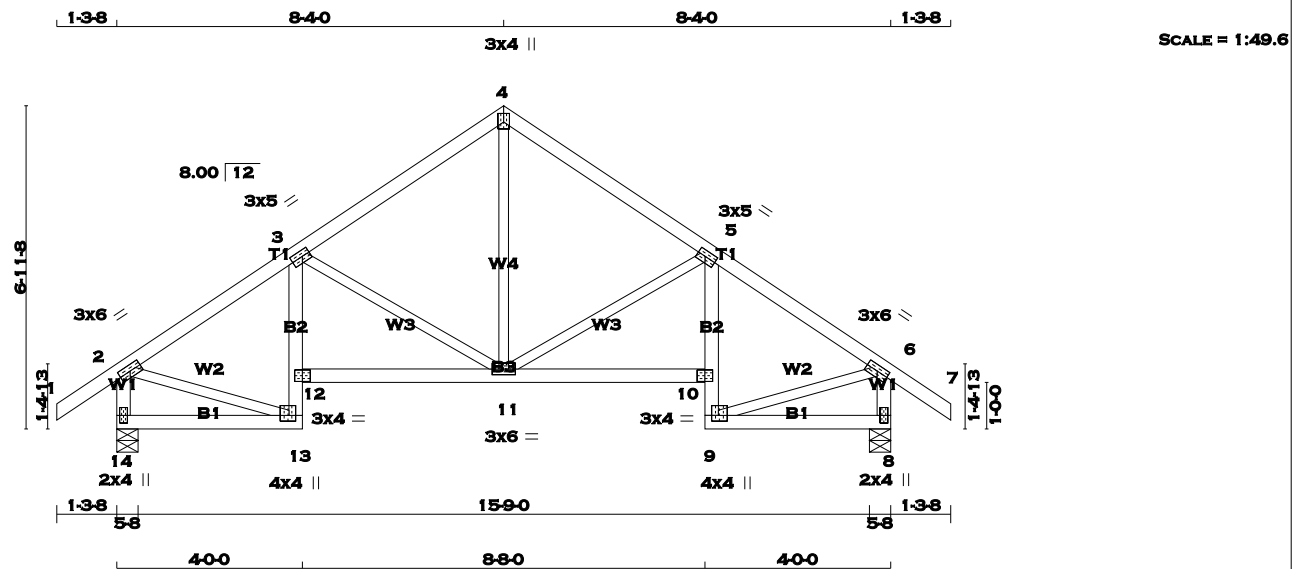
JSI GRIP= 0.90 (8) (INPUT = 0.90)  
JSI METAL= 0.50 (2) (INPUT = 1.00)



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TOTAL WEIGHT = 74 lb [M]

| LUMBER                |      | N. L. G. A. RULES |      | LUMBER | DESCR |
|-----------------------|------|-------------------|------|--------|-------|
| CHORDS                | SIZE |                   |      |        |       |
| 1 - 4                 | 2x4  | DRY               | No.2 | SPF    | SPF   |
| 4 - 7                 | 2x4  | DRY               | No.2 |        |       |
| 14 - 2                | 2x4  | DRY               | No.2 |        |       |
| 8 - 6                 | 2x4  | DRY               | No.2 |        |       |
| 14 - 13               | 2x4  | DRY               | No.2 |        |       |
| 13 - 3                | 2x4  | DRY               | No.2 |        |       |
| 12 - 10               | 2x4  | DRY               | No.2 |        |       |
| 9 - 5                 | 2x4  | DRY               | No.2 |        |       |
| 9 - 8                 | 2x4  | DRY               | No.2 |        |       |
| ALL WEBS<br>EXCEPT    | 2x3  | DRY               | No.2 | SPF    | SPF   |
| DRY: SEASONED LUMBER. |      |                   |      |        |       |

| PLATES (table is in inches) |         |        |     |     |           |
|-----------------------------|---------|--------|-----|-----|-----------|
| JT                          | TYPE    | PLATES | W   | LEN | Y X       |
| 2                           | TMVW-t  | MT20   | 3.0 | 6.0 |           |
| 3                           | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 2.00 |
| 4                           | TTW+p   | MT20   | 3.0 | 4.0 | 2.25 1.50 |
| 5                           | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 2.00 |
| 6                           | TMVW-t  | MT20   | 3.0 | 6.0 |           |
| 8                           | BMV1+p  | MT20   | 2.0 | 4.0 |           |
| 9                           | BMVW+p  | MT20   | 4.0 | 4.0 | 1.50 1.75 |
| 10                          | BVM-l   | MT20   | 3.0 | 4.0 |           |
| 11                          | BMVWW-t | MT20   | 3.0 | 6.0 |           |
| 12                          | BVM-l   | MT20   | 3.0 | 4.0 |           |
| 13                          | BMVW+p  | MT20   | 4.0 | 4.0 | 1.50 1.75 |
| 14                          | BMV1+p  | MT20   | 2.0 | 4.0 |           |

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



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

| FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |        | REQRD BRG |       |
|-------------------------|------|---------------------------------|------|-----------|--------|-----------|-------|
| JT                      | VERT | JT                              | HORZ | JT        | UPLIFT | JT        | IN-SX |
| 14                      | 897  | 0                               | 897  | 0         | 0      | 5-8       | 5-8   |
| 8                       | 897  | 0                               | 897  | 0         | 0      | 5-8       | 5-8   |

ALLOW FOR 0.4" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD.

| UNFACTORED REACTIONS |           |           |           |           |       |         |       |
|----------------------|-----------|-----------|-----------|-----------|-------|---------|-------|
| JT                   | 1ST LCASE | MAX./MIN. | COMPONENT | REACTIONS |       |         |       |
| 14                   | 627       | 452 / 0   | LIVE      | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 8                    | 627       | 452 / 0   | 0 / 0     | 0 / 0     | 0 / 0 | 175 / 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: (3) |             |          |          |
|---------|-------------|------------------|----------------|-----------------------|-------------|----------|----------|
| CHORDS  |             | WEBS             |                | FACTORED              |             | MAX.     |          |
| MEMB.   | FORCE (LBS) | VERT. LOAD (LBS) | LC1 (LC)       | MEMB.                 | FORCE (LBS) | LC1 (LC) | MAX.     |
| FR-TO   |             | FROM TO          |                | FR-TO                 |             |          |          |
| 1-2     | 0 / 29      | -77.3            | -77.3 0.10 (1) | 10.00                 | 11-4        | 0 / 483  | 0.11 (1) |
| 2-3     | -788 / 0    | -77.3            | -77.3 0.15 (1) | 6.25                  | 11-5        | -380 / 0 | 0.17 (1) |
| 3-4     | -722 / 0    | -77.3            | -77.3 0.22 (1) | 6.25                  | 3-11        | -380 / 0 | 0.17 (1) |
| 4-5     | -722 / 0    | -77.3            | -77.3 0.22 (1) | 6.25                  | 2-13        | 0 / 692  | 0.16 (1) |
| 5-6     | -788 / 0    | -77.3            | -77.3 0.15 (1) | 6.25                  | 9-6         | 0 / 692  | 0.16 (1) |
| 6-7     | 0 / 29      | -77.3            | -77.3 0.10 (1) | 10.00                 |             |          |          |
| 14-2    | -863 / 0    | 0.0              | 0.0 0.09 (1)   | 7.81                  |             |          |          |
| 8-6     | -863 / 0    | 0.0              | 0.0 0.09 (1)   | 7.81                  |             |          |          |
| 14-13   | 0 / 0       | -17.5            | -17.5 0.08 (3) | 10.00                 |             |          |          |
| 13-12   | -153 / 0    | 0.0              | 0.0 0.91 (1)   | 7.81                  |             |          |          |
| 12-3    | -123 / 18   | 0.0              | 0.0 0.91 (1)   | 7.81                  |             |          |          |
| 12-11   | 0 / 918     | -17.5            | -17.5 0.20 (1) | 10.00                 |             |          |          |
| 11-10   | 0 / 918     | -17.5            | -17.5 0.20 (1) | 10.00                 |             |          |          |
| 9-10    | -153 / 0    | 0.0              | 0.0 0.91 (1)   | 7.81                  |             |          |          |
| 10-5    | -123 / 18   | 0.0              | 0.0 0.91 (1)   | 7.81                  |             |          |          |
| 9-8     | 0 / 0       | -17.5            | -17.5 0.08 (3) | 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**

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 (0.56")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.12")  
ALLOWABLE DEFL.(TL)= L/360 (0.56")  
CALCULATED VERT. DEFL.(TL) = L/ 921 (0.22")

CSI: TC=0.22 (3-4:1), BC=0.91 (3-12:1), WB=0.17 (3-11:1), SSI=0.52 (12-13:1)

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) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

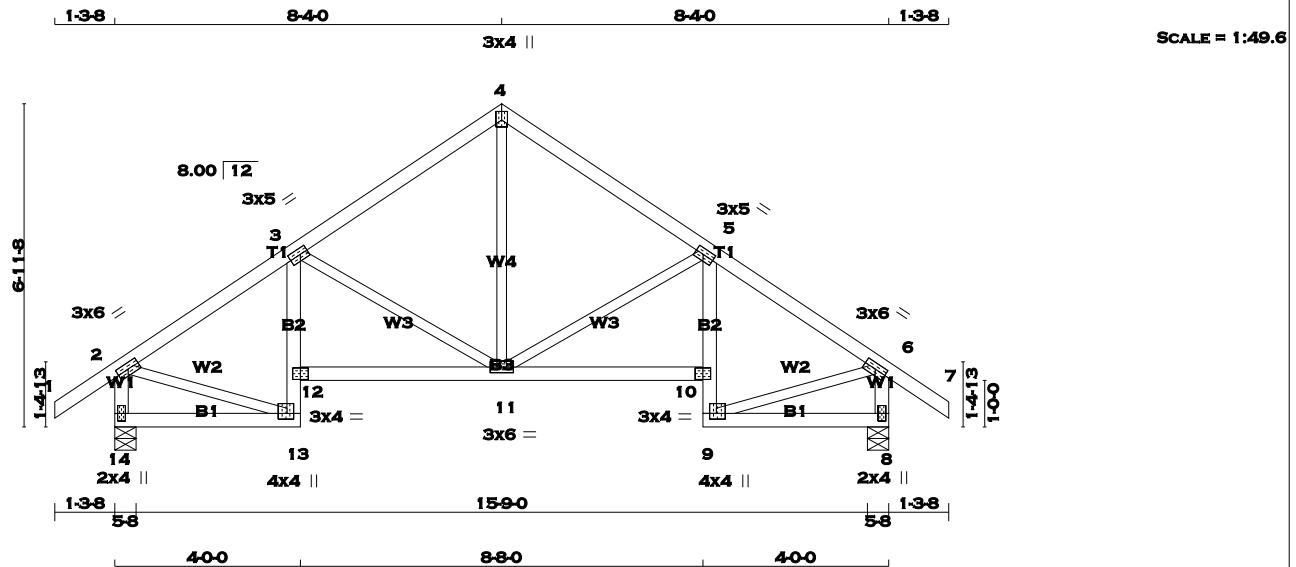
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (11) (INPUT = 0.90)  
JSI METAL= 0.23 (2) (INPUT = 1.00)

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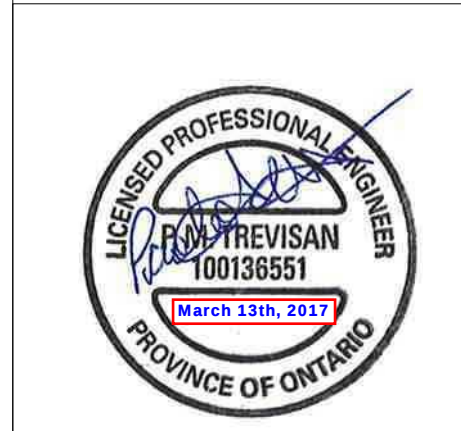
TOTAL WEIGHT = 74 lb [M]

| LUMBER          |      | N. L. G. A. RULES |      | LUMBER | DESCR. |
|-----------------|------|-------------------|------|--------|--------|
| CHORDS          | SIZE |                   |      |        |        |
| 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          | 2x4  | DRY               | No.2 | SPF    |        |
| 12 - 10         | 2x4  | DRY               | No.2 | SPF    |        |
| 9 - 5           | 2x4  | 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 | 6.0 |           |
| 3                           | TMVW-t   | MT20   | 3.0 | 5.0 | 1.50 2.00 |
| 4                           | TTW+p    | MT20   | 3.0 | 4.0 | 2.25 1.50 |
| 5                           | TMVW-t   | MT20   | 3.0 | 5.0 | 1.50 2.00 |
| 6                           | TMVW-t   | MT20   | 3.0 | 6.0 |           |
| 8                           | BMV1+p   | MT20   | 2.0 | 4.0 |           |
| 9                           | BMVW+p   | MT20   | 4.0 | 4.0 | 1.50 1.75 |
| 10                          | BVM-l    | MT20   | 3.0 | 4.0 |           |
| 11                          | BMVWVW-t | MT20   | 3.0 | 6.0 |           |
| 12                          | BVM-l    | MT20   | 3.0 | 4.0 |           |
| 13                          | BMVW+p   | MT20   | 4.0 | 4.0 | 1.50 1.75 |
| 14                          | BMV1+p   | MT20   | 2.0 | 4.0 |           |

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



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

| BEARINGS |                | FACTORED |      | MAXIMUM FACTORED |      | INPUT  |       | REQRD |       |
|----------|----------------|----------|------|------------------|------|--------|-------|-------|-------|
| JT       | GROSS REACTION | DOWN     | HORZ | DOWN             | HORZ | UPLIFT | IN-SX | BRG   | IN-SX |
| 14       | 897            | 0        | 897  | 0                | 0    | 5-8    | 5-8   | 5-8   | 5-8   |
| 8        | 897            | 0        | 897  | 0                | 0    | 5-8    | 5-8   | 5-8   | 5-8   |

ALLOW FOR 0.4" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD.

| UNFACTORED REACTIONS |           |                               |       |           |       |         |       |
|----------------------|-----------|-------------------------------|-------|-----------|-------|---------|-------|
|                      | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
| JT                   | COMBINED  | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 14                   | 627       | 452 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 175 / 0 | 0 / 0 |
| 8                    | 627       | 452 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 175 / 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: (3) |           |            |          |          |               |       |               |          |  |
| CHORDS                |           |            |          |          | WEBS          |       |               |          |  |
| MAX. FACTORED         |           | FACTORED   |          |          | MAX. FACTORED |       | MAX. FACTORED |          |  |
| MEMB.                 | FORCE     | VERT. LOAD | LC1 MAX  | MAX      | MEMB.         | FORCE | MAX           |          |  |
|                       | (LBS)     | (PLF)      | CSI (LC) | UNBRAC   |               | (LBS) | CSI (LC)      |          |  |
| FR-TO                 |           | FROM       | TO       | LENGTH   | FR-TO         |       |               |          |  |
| 1-2                   | 0 / 29    | -77.3      | -77.3    | 0.10 (1) | 10.00         | 11-4  | 0 / 483       | 0.11 (1) |  |
| 2-3                   | -788 / 0  | -77.3      | -77.3    | 0.15 (1) | 6.25          | 11-5  | -380 / 0      | 0.17 (1) |  |
| 3-4                   | -722 / 0  | -77.3      | -77.3    | 0.22 (1) | 6.25          | 3-11  | -380 / 0      | 0.17 (1) |  |
| 4-5                   | -722 / 0  | -77.3      | -77.3    | 0.22 (1) | 6.25          | 2-13  | 0 / 692       | 0.16 (1) |  |
| 5-6                   | -788 / 0  | -77.3      | -77.3    | 0.15 (1) | 6.25          | 9-6   | 0 / 692       | 0.16 (1) |  |
| 6-7                   | 0 / 29    | -77.3      | -77.3    | 0.10 (1) | 10.00         |       |               |          |  |
| 14-2                  | -863 / 0  | 0.0        | 0.0      | 0.09 (1) | 7.81          |       |               |          |  |
| 8-6                   | -863 / 0  | 0.0        | 0.0      | 0.09 (1) | 7.81          |       |               |          |  |
|                       |           |            |          |          |               |       |               |          |  |
| 14-13                 | 0 / 0     | -17.5      | -17.5    | 0.08 (3) | 10.00         |       |               |          |  |
| 13-12                 | -153 / 0  | 0.0        | 0.0      | 0.91 (1) | 7.81          |       |               |          |  |
| 12-3                  | -123 / 18 | 0.0        | 0.0      | 0.91 (1) | 7.81          |       |               |          |  |
| 12-11                 | 0 / 918   | -17.5      | -17.5    | 0.20 (1) | 10.00         |       |               |          |  |
| 11-10                 | 0 / 918   | -17.5      | -17.5    | 0.20 (1) | 10.00         |       |               |          |  |
| 9-10                  | -153 / 0  | 0.0        | 0.0      | 0.91 (1) | 7.81          |       |               |          |  |
| 10-5                  | -123 / 18 | 0.0        | 0.0      | 0.91 (1) | 7.81          |       |               |          |  |
| 9-8                   | 0 / 0     | -17.5      | -17.5    | 0.08 (3) | 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

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 (0.56")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.12")  
ALLOWABLE DEFL.(TL)= L/360 (0.56")  
CALCULATED VERT. DEFL.(TL) = L/921 (0.22")

CSI: TC=0.22 (3-4:1), BC=0.91 (3-12:1), WB=0.17 (3-11:1), SSI=0.52 (12-13:1)

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) SHEAR SECTION  
(PSI) (PLI) (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= 0.88 (11) (INPUT = 0.90)  
JSI METAL= 0.23 (2) (INPUT = 1.00)

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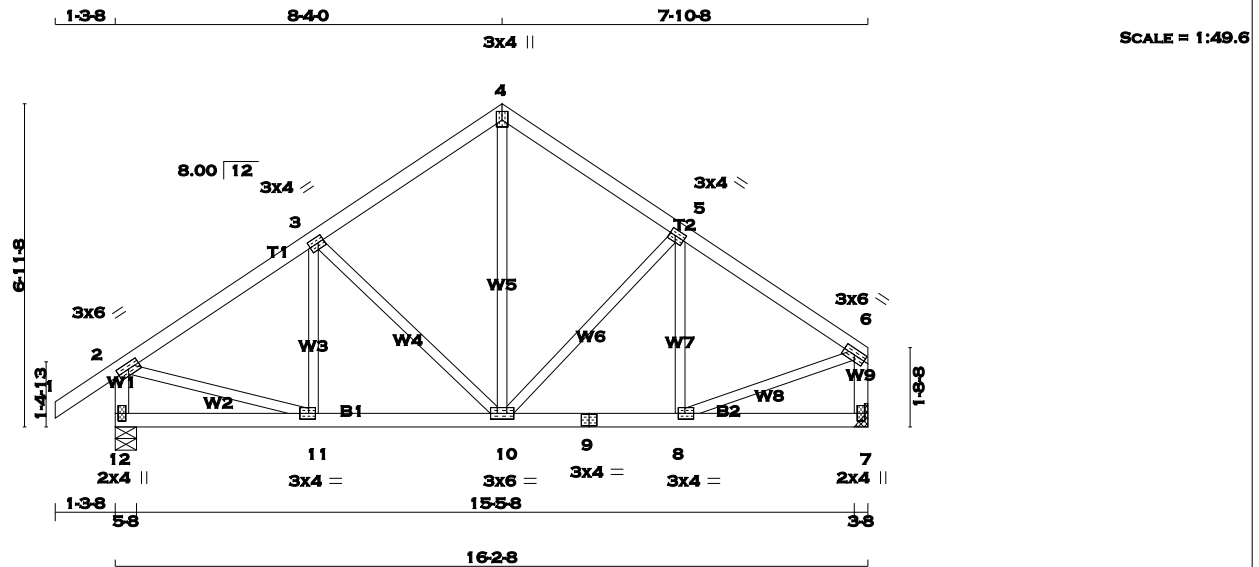
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



Kott Lumber Uxbridge, Stouffville, ON, CGC

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TOTAL WEIGHT = 3 X 72 = 215 lb  
[M][F]

| LUMBER                |        |      |        |  | DESCR. |
|-----------------------|--------|------|--------|--|--------|
| N. L. G. A. RULES     | CHORDS | SIZE | LUMBER |  |        |
| 1 - 4                 | 2x4    | DRY  | No.2   |  | SPF    |
| 4 - 6                 | 2x4    | DRY  | No.2   |  | SPF    |
| 12 - 2                | 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              | 2x3    | DRY  | No.2   |  | SPF    |
| EXCEPT                |        |      |        |  |        |
| DRY: SEASONED LUMBER. |        |      |        |  |        |

| PLATES (table is in inches) |        |        |     |     |      |      |
|-----------------------------|--------|--------|-----|-----|------|------|
| JT                          | TYPE   | PLATES | W   | LEN | Y    | X    |
| 2                           | TMVW-t | MT20   | 3.0 | 6.0 |      |      |
| 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 | 6.0 |      |      |
| 7                           | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 8                           | BMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 9                           | BS-t   | MT20   | 3.0 | 4.0 |      |      |
| 10                          | BMVW-t | MT20   | 3.0 | 6.0 |      |      |
| 11                          | BMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 12                          | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

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

| FACTORED |       |          | MAXIMUM FACTORED |          |        | INPUT            | REQRD               |
|----------|-------|----------|------------------|----------|--------|------------------|---------------------|
| JT       | GROSS | REACTION | GROSS            | REACTION |        | BRG              | BRG                 |
|          | VERT  | HORZ     | DOWN             | HORZ     | UPLIFT | IN-SX            | IN-SX               |
| 12       | 875   | 0        | 875              | 0        | 0      | 5-8              | 5-8                 |
| 7        | 769   | 0        | 769              | 0        | 0      | HANGER BY OTHERS |                     |
|          |       |          |                  |          |        |                  | MIN. SEAT SIZE: 3-8 |

#### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. |       | COMPONENT REACTIONS |       |       |         |       |  |
|-----------|----------|-----------|-------|---------------------|-------|-------|---------|-------|--|
| JT        | COMBINED | SNOW      | LIVE  | PERM.               | LIVE  | WIND  | DEAD    | SOIL  |  |
| 12        | 612      | 441 / 0   | 0 / 0 | 0 / 0               | 0 / 0 | 0 / 0 | 170 / 0 | 0 / 0 |  |
| 7         | 539      | 377 / 0   | 0 / 0 | 0 / 0               | 0 / 0 | 0 / 0 | 162 / 0 | 0 / 0 |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 12

#### 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: (3)

| CHORDS |                           |                           |                | WEBS  |                           |              |          |
|--------|---------------------------|---------------------------|----------------|-------|---------------------------|--------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 (LC)   | MEMB. | MAX. FACTORED FORCE (LBS) | MAX LC1 (LC) |          |
| FR-TO  |                           | FROM                      | TO             | FR-TO |                           | FROM         | TO       |
| 1-2    | 0 / 29                    | -77.3                     | -77.3 0.10 (1) | 10.00 | 11-3                      | -88 / 44     | 0.02 (1) |
| 2-3    | -775 / 0                  | -77.3                     | -77.3 0.17 (1) | 6.25  | 3-10                      | -264 / 0     | 0.14 (1) |
| 3-4    | -589 / 0                  | -77.3                     | -77.3 0.17 (1) | 6.25  | 10-4                      | 0 / 400      | 0.09 (1) |
| 4-5    | -588 / 0                  | -77.3                     | -77.3 0.15 (1) | 6.25  | 10-5                      | -203 / 0     | 0.11 (1) |
| 5-6    | -715 / 0                  | -77.3                     | -77.3 0.15 (1) | 6.25  | 8-5                       | -135 / 25    | 0.04 (1) |
| 12-2   | -843 / 0                  | 0.0                       | 0.0 0.09 (1)   | 7.81  | 2-11                      | 0 / 683      | 0.15 (1) |
| 7-6    | -738 / 0                  | 0.0                       | 0.0 0.08 (1)   | 7.81  | 8-6                       | 0 / 646      | 0.15 (1) |
| 12-11  | 0 / 0                     | -17.5                     | -17.5 0.07 (3) | 10.00 |                           |              |          |
| 11-10  | 0 / 662                   | -17.5                     | -17.5 0.14 (1) | 10.00 |                           |              |          |
| 10-9   | 0 / 611                   | -17.5                     | -17.5 0.13 (1) | 10.00 |                           |              |          |
| 9-8    | 0 / 611                   | -17.5                     | -17.5 0.13 (1) | 10.00 |                           |              |          |
| 8-7    | 0 / 0                     | -17.5                     | -17.5 0.06 (3) | 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

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 (0.54")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.54")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.17 (2-3:1), BC=0.14 (10-11:1), WB=0.15 (2-11:1), SSI=0.13 (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) SHEAR SECTION  
(PSI) (PLI) (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.

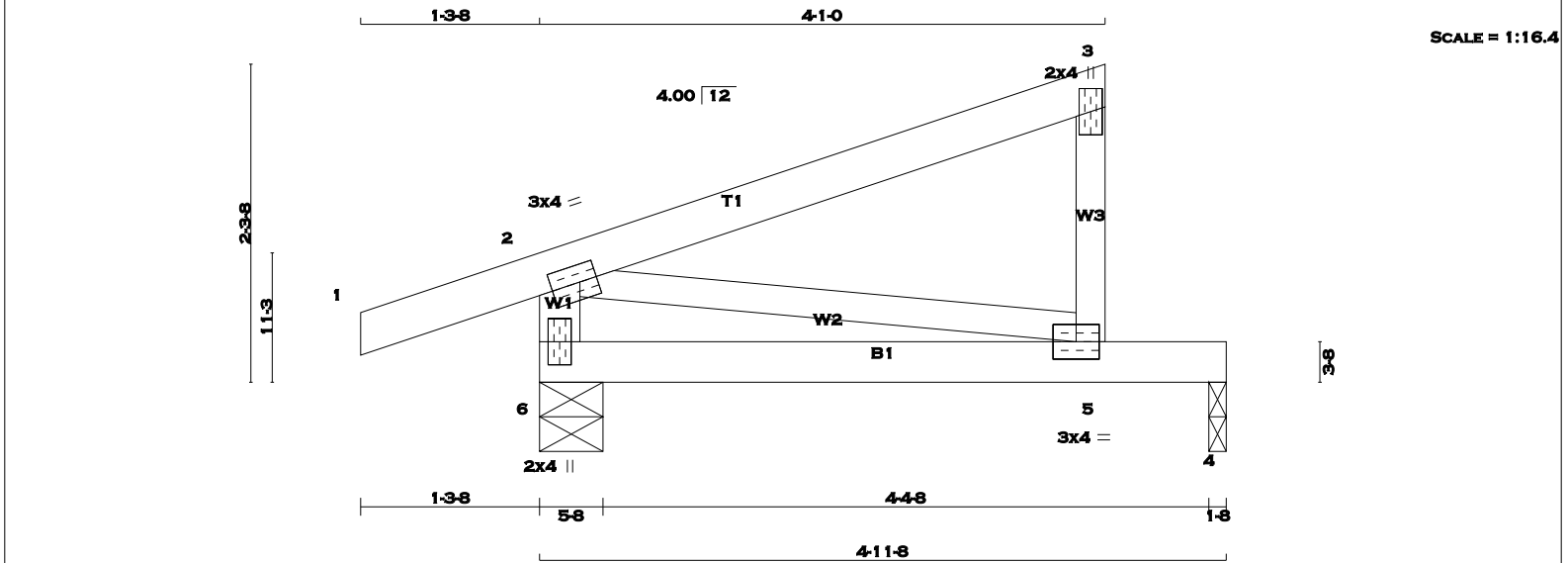
JSI GRIP= 0.90 (8) (INPUT = 0.90 )  
JSI METAL= 0.25 (11) (INPUT = 1.00 )



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LUMBER

N. L. G. A. RULES

CHORDS SIZE LUMBER DESCR.

1 - 32x4DRYNo.2SPF

5 - 32x3DRYNo.2SPF

6 - 22x4DRYNo.2SPF

6 - 42x4DRYNo.2SPF

ALL WEBS 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 | 4.0 | 1.50 | 1.50 |
| 3  | TMV+p  | MT20   | 2.0 | 4.0 |      |      |
| 5  | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 6  | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

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

| JT | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----|-------------------------|---------------------------------|-----------|-----------|
|    | VERT                    | HORZ                            | DOWN      | HORZ      |
| 6  | 333                     | 0                               | 333       | 0         |
| 4  | 173                     | 0                               | 0         | 0         |

UNFACTORED REACTIONS

| JT | 1ST LCASE COMBINED | SNOW    | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |
|----|--------------------|---------|-------|-----------|-------|--------|-------|
| 6  | 231                | 174 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 57 / 0 | 0 / 0 |
| 4  | 123                | 78 / 0  | 0 / 0 | 0 / 0     | 0 / 0 | 45 / 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: (3)

CHORDS

| MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC) | UNBRAC LENGTH |
|-------|---------------------------|---------------------------|---------------|---------------|
| FR-TO |                           | FROM TO                   |               |               |
| 1- 2  | 0 / 16                    | -77.3 -77.3               | 0.10 (1)      | 10.00         |
| 2- 3  | 0 / 0                     | -77.3 -77.3               | 0.22 (1)      | 10.00         |
| 5- 3  | -158 / 0                  | 0.0 0.0                   | 0.03 (1)      | 7.81          |
| 6- 2  | -261 / 0                  | 0.0 0.0                   | 0.03 (1)      | 7.81          |
| 6- 5  | 0 / 0                     | -17.5 -17.5               | 0.20 (1)      | 10.00         |
| 5- 4  | 0 / 0                     | -17.5 -17.5               | 0.20 (1)      | 10.00         |

WEBS

| MEMB. | MAX. FACTORED FORCE (LBS) | MAX. LC1 (LC) | UNBRAC LENGTH |
|-------|---------------------------|---------------|---------------|
| FR-TO |                           |               |               |
| 2- 5  | 0 / 0                     |               |               |

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

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 (0.19")

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

ALLOWABLE DEFL.(TL)= L/360 (0.19")

CALCULATED VERT. DEFL.(TL) = L/ 872 (0.07")

CSI: TC=0.22 (2-3:1) , BC=0.20 (5-6:1) , WB=0.00 (2-5:1) , SSI=0.14 (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

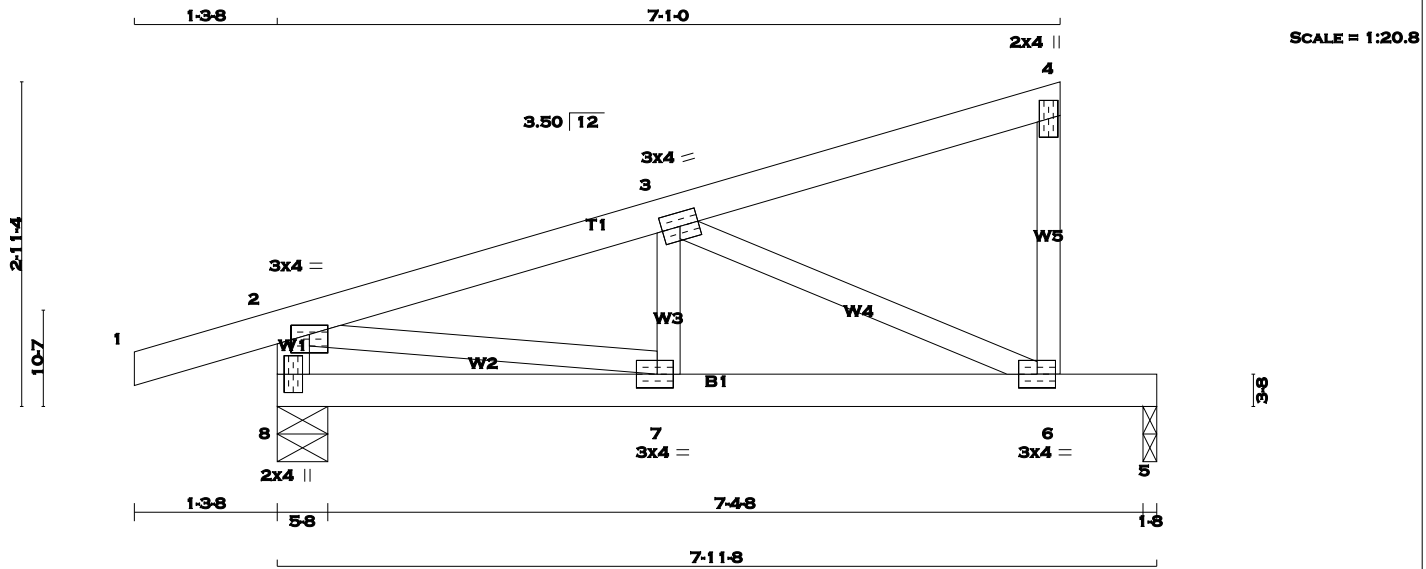
| PLATE | GRIP(DRY) | SHEAR (PSI) | SECTION (PLI) |
|-------|-----------|-------------|---------------|
|       | MAX MIN   | MAX MIN     | MAX MIN       |
| MT20  | 618 354   | 1667 822    | 2284 1656     |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.24 (2) (INPUT = 0.90 )

JSI METAL= 0.05 (6) (INPUT = 1.00 )



| LUMBER            |        |      |        |        |
|-------------------|--------|------|--------|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
| 1 - 4             | 2x4    | DRY  | No.2   | SPF    |
| 6 - 4             | 2x3    | DRY  | No.2   | SPF    |
| 8 - 2             | 2x4    | DRY  | No.2   | SPF    |
| 8 - 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    |
|----|--------|--------|-----|-----|------|------|
| 2  | TMVW-p | MT20   | 3.0 | 4.0 | 1.00 | 2.00 |
| 3  | TMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 4  | TMV+p  | MT20   | 2.0 | 4.0 |      |      |
| 6  | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 7  | BMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 8  | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

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     |  |
| 8        |  | 477                     | 0    | 477                             | 0    | 0         | 5-8   | 5-8       |  |
| 5        |  | 313                     | 0    | 313                             | 0    | 0         | 1-8   | 1-8       |  |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX/MIN. | COMPONENT REACTIONS |           |       |        |       |  |
|----|-----------|----------|---------------------|-----------|-------|--------|-------|--|
|    | COMBINED  | SNOW     | LIVE                | PERM.LIVE | WIND  | DEAD   | SOIL  |  |
| 8  | 332       | 245 / 0  | 0 / 0               | 0 / 0     | 0 / 0 | 87 / 0 | 0 / 0 |  |
| 5  | 221       | 147 / 0  | 0 / 0               | 0 / 0     | 0 / 0 | 75 / 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: (3)

| CHORDS |                           |                           |                  | WEBS               |       |                           |              |
|--------|---------------------------|---------------------------|------------------|--------------------|-------|---------------------------|--------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
| FR-TO  |                           | FROM TO                   |                  |                    | FR-TO |                           |              |
| 1-2    | 0 / 14                    | -77.3 -77.3               | 0.10 (1)         | 10.00              | 7-3   | 0 / 91                    | 0.03 (3)     |
| 2-3    | -579 / 0                  | -77.3 -77.3               | 0.11 (1)         | 6.25               | 3-6   | -619 / 0                  | 0.16 (1)     |
| 3-4    | -8 / 0                    | -77.3 -77.3               | 0.11 (1)         | 10.00              | 2-7   | 0 / 571                   | 0.13 (1)     |
| 6-4    | -108 / 0                  | 0.0 0.0                   | 0.02 (1)         | 7.81               |       |                           |              |
| 8-2    | -467 / 0                  | 0.0 0.0                   | 0.05 (1)         | 7.81               |       |                           |              |
| 8-7    | 0 / 0                     | -17.5 -17.5               | 0.10 (1)         | 10.00              |       |                           |              |
| 7-6    | 0 / 564                   | -17.5 -17.5               | 0.45 (1)         | 10.00              |       |                           |              |
| 6-5    | 0 / 0                     | -17.5 -17.5               | 0.36 (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 (0.27")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (0.27")  
CALCULATED VERT. DEFL.(TL) = L/ 973 (0.10")

CSI: TC=0.11 (2-3:1) , BC=0.45 (6-7:1) , WB=0.16 (3-6:1) , SSI=0.24 (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) | SHEAR    | SECTION   |
|-------|-----------|----------|-----------|
|       | (PSI)     | (PLI)    | (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.

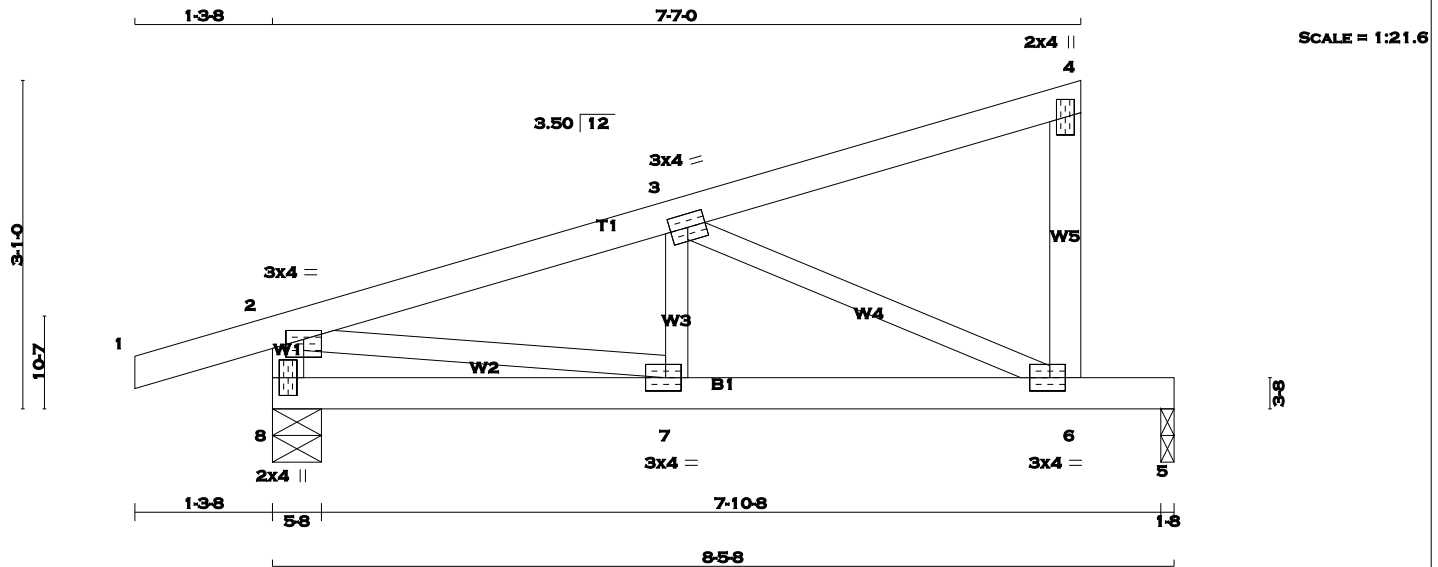
JSI GRIP= 0.86 (6) (INPUT = 0.90 )  
JSI METAL= 0.21 (2) (INPUT = 1.00 )



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TOTAL WEIGHT = 7 X 30 = 213 lb  
 [M][F]

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

|                 |     |     |      |     |
|-----------------|-----|-----|------|-----|
| 1 - 4           | 2x4 | DRY | No.2 | SPF |
| 6 - 4           | 2x4 | DRY | No.2 | SPF |
| 8 - 2           | 2x4 | DRY | No.2 | SPF |
| 8 - 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    |
|----|--------|--------|-----|-----|------|------|
| 2  | TMVW-p | MT20   | 3.0 | 4.0 | 1.00 | 2.00 |
| 3  | TMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 4  | TMV+p  | MT20   | 2.0 | 4.0 |      |      |
| 6  | BMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 7  | BMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 8  | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

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**

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |
|----|-------------------------|------|---------------------------------|------|-----------|-------|-----------|--|
|    | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     |  |
| 8  | 501                     | 0    | 501                             | 0    | 0         | 5-8   | 5-8       |  |
| 5  | 337                     | 0    | 337                             | 0    | 0         | 1-8   | 1-8       |  |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |           | WIND  | DEAD   | SOIL  |
|----|-----------|---------|-------------------------------|-----------|-------|--------|-------|
|    | COMBINED  | SNOW    | LIVE                          | PERM.LIVE |       |        |       |
| 8  | 349       | 257 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 92 / 0 | 0 / 0 |
| 5  | 238       | 158 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 80 / 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: (3)

| MEMB. | CHORDS                    |                           |          |                   | WEBS  |                           |                   |                   |
|-------|---------------------------|---------------------------|----------|-------------------|-------|---------------------------|-------------------|-------------------|
|       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX  | MAX UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX UNBRAC LENGTH | MAX UNBRAC LENGTH |
| FR-TO |                           | FROM TO                   |          |                   | FR-TO |                           |                   |                   |
| 1-2   | 0 / 14                    | -77.3 -77.3               | 0.10 (1) | 10.00             | 7-3   | 0 / 97                    | 0.03 (3)          |                   |
| 2-3   | -629 / 0                  | -77.3 -77.3               | 0.13 (1) | 6.25              | 3-6   | -670 / 0                  | 0.18 (1)          |                   |
| 3-4   | -9 / 0                    | -77.3 -77.3               | 0.13 (1) | 10.00             | 2-7   | 0 / 619                   | 0.14 (1)          |                   |
| 6-4   | -115 / 0                  | 0.0 0.0                   | 0.02 (1) | 7.81              |       |                           |                   |                   |
| 8-2   | -489 / 0                  | 0.0 0.0                   | 0.05 (1) | 7.81              |       |                           |                   |                   |
| 8-7   | 0 / 0                     | -17.5 -17.5               | 0.11 (1) | 10.00             |       |                           |                   |                   |
| 7-6   | 0 / 612                   | -17.5 -17.5               | 0.49 (1) | 10.00             |       |                           |                   |                   |
| 6-5   | 0 / 0                     | -17.5 -17.5               | 0.39 (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  
 - TPC 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 (0.28")  
 CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")  
 ALLOWABLE DEFL.(TL)= L/360 (0.28")  
 CALCULATED VERT. DEFL.(TL) = L/ 873 (0.12")

CSI: TC=0.13 (2-3:1) , BC=0.49 (6-7:1) , WB=0.18 (3-6:1) , SSI=0.26 (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) SHEAR SECTION  
 (PSI) (PLI) (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.

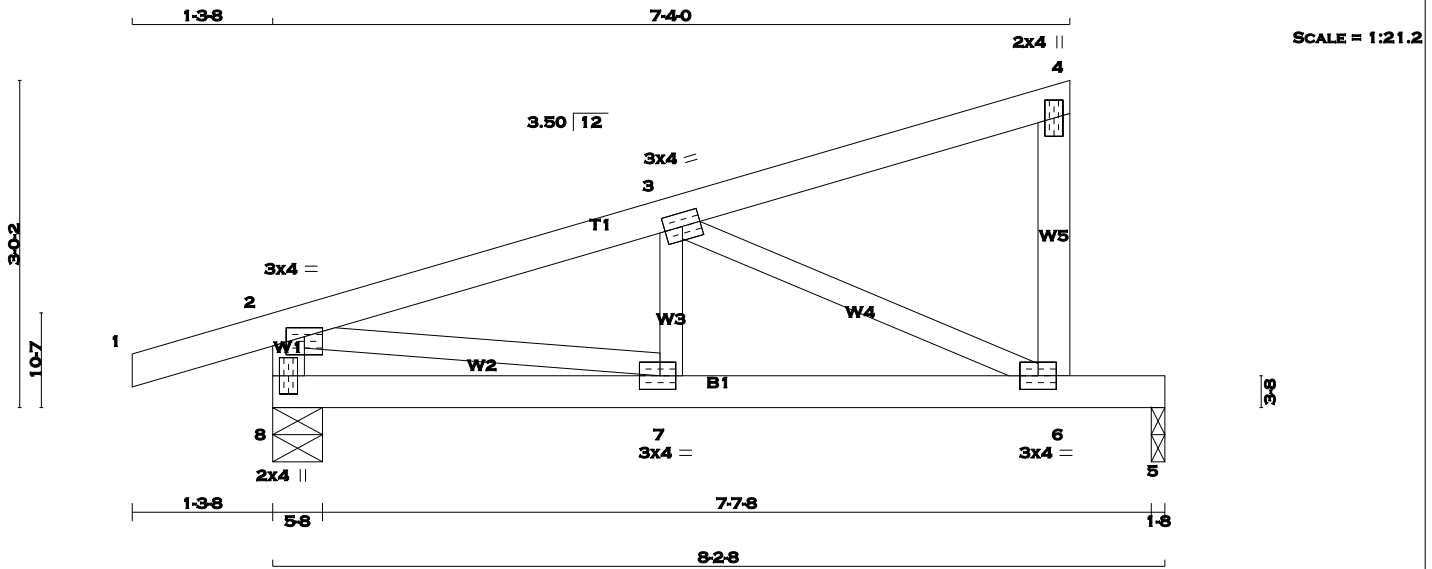
JSI GRIP= 0.83 (7) (INPUT = 0.90 )  
 JSI METAL= 0.23 (7) (INPUT = 1.00 )



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TOTAL WEIGHT = 18 X 30 = 532 lb  
[M][F]

| LUMBER            |        |      |        |        |
|-------------------|--------|------|--------|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
| 1 - 4             | 2x4    | DRY  | No.2   | SPF    |
| 6 - 4             | 2x4    | DRY  | No.2   | SPF    |
| 8 - 2             | 2x4    | DRY  | No.2   | SPF    |
| 8 - 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       |
| 2                           | TMVW-p | MT20   | 3.0 | 4.0 | 1.00 2.00 |
| 3                           | TMVW-t | MT20   | 3.0 | 4.0 |           |
| 4                           | TMV+p  | MT20   | 2.0 | 4.0 |           |
| 6                           | BMVW-t | MT20   | 3.0 | 4.0 |           |
| 7                           | BMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 8                           | BMV1+p | MT20   | 2.0 | 4.0 |           |

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     |  |
| 8        |  | 489                     | 0    | 489                             | 0    | 0         | 5-8   | 5-8       |  |
| 5        |  | 325                     | 0    | 325                             | 0    | 0         | 1-8   | 1-8       |  |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. | COMPONENT REACTIONS |           |       |        |       |  |
|----|-----------|-----------|---------------------|-----------|-------|--------|-------|--|
|    | COMBINED  | SNOW      | LIVE                | PERM.LIVE | WIND  | DEAD   | SOIL  |  |
| 8  | 341       | 251 / 0   | 0 / 0               | 0 / 0     | 0 / 0 | 90 / 0 | 0 / 0 |  |
| 5  | 230       | 153 / 0   | 0 / 0               | 0 / 0     | 0 / 0 | 77 / 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: (3)

| CHORDS |                  |                           |                  | WEBS  |                  |                       |          |
|--------|------------------|---------------------------|------------------|-------|------------------|-----------------------|----------|
| MEMB.  | MAX. FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MEMB. | MAX. FORCE (LBS) | FACTORED MAX CSI (LC) |          |
| FR-TO  |                  | FROM TO                   |                  | FR-TO |                  |                       |          |
| 1-2    | 0 / 14           | -77.3 -77.3               | 0.10 (1)         | 10.00 | 7-3              | 0 / 94                | 0.03 (3) |
| 2-3    | -604 / 0         | -77.3 -77.3               | 0.12 (1)         | 6.25  | 3-6              | -644 / 0              | 0.17 (1) |
| 3-4    | -8 / 0           | -77.3 -77.3               | 0.12 (1)         | 10.00 | 2-7              | 0 / 595               | 0.13 (1) |
| 6-4    | -112 / 0         | 0.0 0.0                   | 0.02 (1)         | 7.81  |                  |                       |          |
| 8-2    | -478 / 0         | 0.0 0.0                   | 0.05 (1)         | 7.81  |                  |                       |          |
| 8-7    | 0 / 0            | -17.5 -17.5               | 0.11 (1)         | 10.00 |                  |                       |          |
| 7-6    | 0 / 588          | -17.5 -17.5               | 0.47 (1)         | 10.00 |                  |                       |          |
| 6-5    | 0 / 0            | -17.5 -17.5               | 0.38 (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 (0.27")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")  
ALLOWABLE DEFL.(TL)= L/360 (0.27")  
CALCULATED VERT. DEFL.(TL) = L/ 921 (0.11")

CSI: TC=0.12 (2-3:1) , BC=0.47 (6-7:1) , WB=0.17 (3-6:1) , SSI=0.25 (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) | SHEAR | SECTION |
|-------|-----------|-------|---------|
| (PSI) | (PLI)     | (PLI) | (PLI)   |
| MAX   | MIN       | MAX   | MIN     |
| MT20  | 618       | 354   | 1667    |
|       | 822       | 2284  | 1656    |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

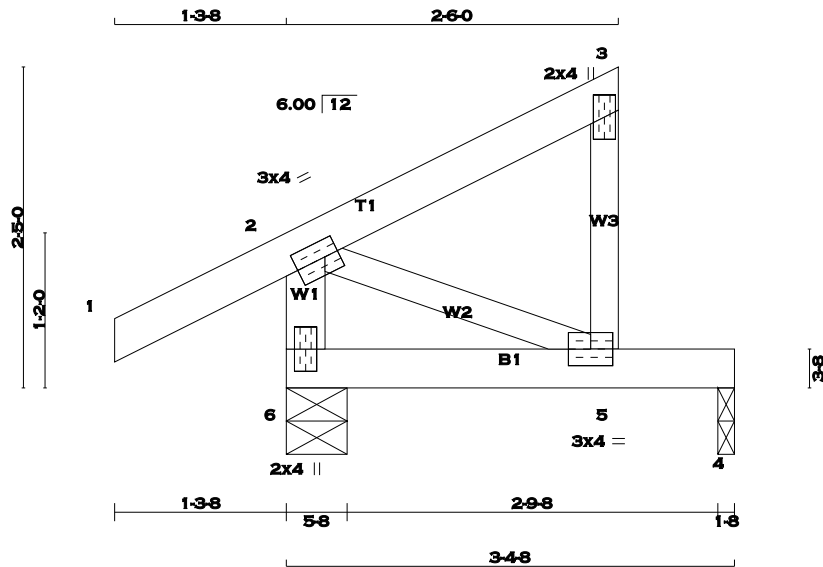
JSI GRIP= 0.89 (6) (INPUT = 0.90 )  
JSI METAL= 0.22 (2) (INPUT = 1.00 )



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SCALE = 1:17.3

TOTAL WEIGHT = 6 X 13 = 77 lb [M]

| LUMBER                |        |      |        |  | DESCR. |     |
|-----------------------|--------|------|--------|--|--------|-----|
| N. L. G. A. RULES     | CHORDS | SIZE | LUMBER |  |        |     |
| 1 - 3                 | 2x4    | DRY  | No.2   |  | SPF    |     |
| 5 - 3                 | 2x3    | 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                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.25 |
| 3                           | TMV+p  | MT20   | 2.0 | 4.0 |      |      |
| 5                           | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 6                           | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

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

|    |     | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |
|----|-----|-------------------------|------|---------------------------------|------|-----------|-------|-----------|--|
| JT |     | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     |  |
| 6  | 256 | 0                       | 256  | 0                               | 0    | 5-8       | 5-8   |           |  |
| 4  | 101 | 0                       | 101  | 0                               | 0    | 1-8       | 1-8   |           |  |

#### UNFACTORED REACTIONS

|    |          | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS |           |       |        |       |  |
|----|----------|-----------|-------------------------------|-----------|-------|--------|-------|--|
| JT | COMBINED | SNOW      | LIVE                          | PERM.LIVE | WIND  | DEAD   | SOIL  |  |
| 6  | 178      | 136 / 0   | 0 / 0                         | 0 / 0     | 0 / 0 | 41 / 0 | 0 / 0 |  |
| 4  | 72       | 43 / 0    | 0 / 0                         | 0 / 0     | 0 / 0 | 29 / 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        |          |            |         | WEBS       |               |          |          |
|-----|----------|---------------|----------|------------|---------|------------|---------------|----------|----------|
|     |          | MAX. FACTORED | FACTORED | VERT. LOAD | LC1 MAX | MAX. MEMB. | MAX. FACTORED | FORCE    | MAX      |
|     |          | FORCE (LBS)   | (PLF)    | CSF (LC)   | UNBRAC  | LENGTH     | FR-TO         | (LBS)    | CSF (LC) |
|     |          |               | FROM     | TO         |         |            |               |          |          |
| 1-2 | 0 / 23   | -77.3         | -77.3    | 0.10 (1)   | 10.00   | 2-5        | 0 / 0         | 0.00 (1) |          |
| 2-3 | 0 / 0    | -77.3         | -77.3    | 0.08 (1)   | 10.00   |            |               |          |          |
| 5-3 | -97 / 0  | 0.0           | 0.0      | 0.02 (1)   | 7.81    |            |               |          |          |
| 6-2 | -202 / 0 | 0.0           | 0.0      | 0.02 (1)   | 7.81    |            |               |          |          |
| 6-5 | 0 / 0    | -17.5         | -17.5    | 0.11 (1)   | 10.00   |            |               |          |          |
| 5-4 | 0 / 0    | -17.5         | -17.5    | 0.11 (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

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

CSI: TC=0.10 (1-2:1), BC=0.11 (5-6:1), WB=0.00 (2-5:1), SSI=0.08 (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) | SHEAR | SECTION |
|-------|-----------|-------|---------|
| (PSI) | (PLI)     | (PLI) |         |
| MAX   | MIN       | MAX   | MIN     |
| MT20  | 618       | 354   | 1667    |
|       |           | 822   | 2284    |
|       |           |       | 1656    |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

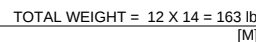
JSI GRIP= 0.18 (2) (INPUT = 0.90 )  
JSI METAL= 0.04 (6) (INPUT = 1.00 )

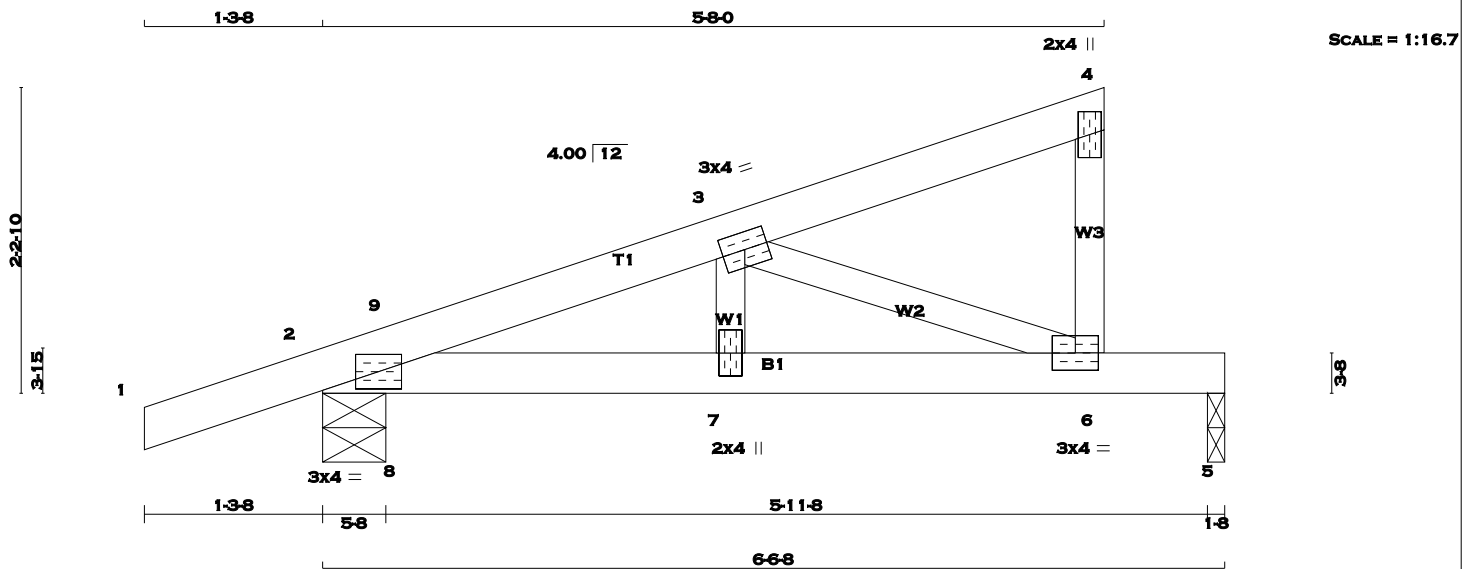


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TOTAL WEIGHT = 12 X 20 = 239 lb  
[M][F]

| LUMBER                |      |        |        |     |
|-----------------------|------|--------|--------|-----|
| N. L. G. A. RULES     | SIZE | LUMBER | DESCR. |     |
| CHORDS                |      |        |        |     |
| 1 - 4                 | 2x4  | DRY    | No.2   | SPF |
| 6 - 4                 | 2x3  | DRY    | No.2   | SPF |
| 2 - 5                 | 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                           | TMB1-I | MT20   | 3.0 | 4.0 |   |   |
| 3                           | TMVW-t | MT20   | 3.0 | 4.0 |   |   |
| 4                           | TMV+p  | MT20   | 2.0 | 4.0 |   |   |
| 6                           | BMVW-t | MT20   | 3.0 | 4.0 |   |   |
| 7                           | BMV+w  | MT20   | 2.0 | 4.0 |   |   |

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 |      | MAXIMUM FACTORED |      | INPUT  |       | REQRD |       |
|----------|----------------|----------|------|------------------|------|--------|-------|-------|-------|
| JT       | GROSS REACTION | DOWN     | HORZ | DOWN             | HORZ | UPLIFT | IN-SX | BRG   | IN-SX |
| 2        | 409            | 0        | 409  | 0                | 0    | 5-8    | 5-8   |       |       |
| 5        | 247            | 0        | 247  | 0                | 0    | 1-8    | 1-8   |       |       |

| UNFACTORED REACTIONS |           |          |           |           |       |        |       |
|----------------------|-----------|----------|-----------|-----------|-------|--------|-------|
| JT                   | 1ST LCASE | MAX/MIN. | COMPONENT | REACTIONS |       |        |       |
| 2                    | 285       | 212 / 0  | LIVE      | PERM.LIVE | WIND  | DEAD   | SOIL  |
| 5                    | 175       | 114 / 0  | 0 / 0     | 0 / 0     | 0 / 0 | 61 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 2, 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: (3) |                           |                           |                |                    |       |                           |               |
| CHORDS                |                           |                           |                | WEBS               |       |                           |               |
| MEMB.                 | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC)  | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. LC1 (LC) |
| FR-TO                 |                           | FROM TO                   |                |                    | FR-TO |                           |               |
| 1-2                   | 0 / 15                    | -77.3                     | -77.3 0.10 (1) | 10.00              | 7-3   | 0 / 178                   | 0.04 (1)      |
| 2-9                   | -607 / 0                  | -77.3                     | -77.3 0.01 (1) | 6.25               | 3-6   | -606 / 0                  | 0.11 (1)      |
| 9-3                   | -593 / 0                  | -77.3                     | -77.3 0.05 (1) | 6.25               | 8-9   | -74 / 2                   | 0.00 (1)      |
| 3-4                   | -4 / 0                    | -77.3                     | -77.3 0.06 (1) | 10.00              |       |                           |               |
| 6-4                   | -91 / 0                   | 0.0                       | 0.0 0.01 (1)   | 7.81               |       |                           |               |
| 2-8                   | 0 / 568                   | -17.5                     | -17.5 0.14 (1) | 10.00              |       |                           |               |
| 8-7                   | 0 / 568                   | -17.5                     | -17.5 0.16 (1) | 10.00              |       |                           |               |
| 7-6                   | 0 / 568                   | -17.5                     | -17.5 0.38 (1) | 10.00              |       |                           |               |
| 6-5                   | 0 / 0                     | -17.5                     | -17.5 0.29 (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 (0.22")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")  
ALLOWABLE DEFL.(TL)= L/360 (0.22")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.06")

CSI: TC=0.10 (1-2:1), BC=0.38 (6-7:1), WB=0.11 (3-6:1), SSI=0.19 (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) SHEAR SECTION  
(PSI) (PLI) (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.

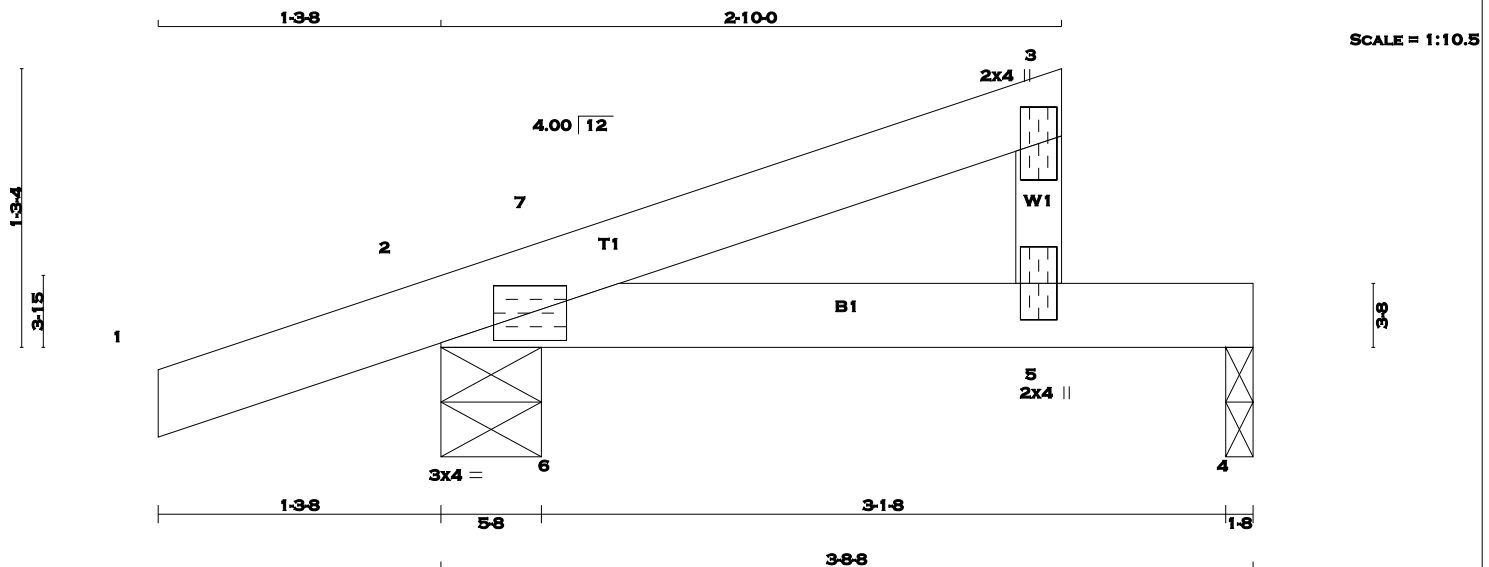
JSI GRIP= 0.86 (6) (INPUT = 0.90 )  
JSI METAL= 0.21 (6) (INPUT = 1.00 )



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TOTAL WEIGHT = 12 X 10 = 118 lb [M]

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

|       |     |     |      |     |
|-------|-----|-----|------|-----|
| 1 - 3 | 2x4 | DRY | No.2 | SPF |
| 5 - 3 | 2x3 | DRY | No.2 | SPF |
| 2 - 4 | 2x4 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE   | PLATES | W   | LEN | Y | X |
|----|--------|--------|-----|-----|---|---|
| 2  | TMB1-I | MT20   | 3.0 | 4.0 |   |   |
| 3  | TMV+p  | MT20   | 2.0 | 4.0 |   |   |
| 5  | BMV+p  | MT20   | 2.0 | 4.0 |   |   |

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**

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG | REQRD BRG |
|----|-------------------------|------|---------------------------------|------|-----------|-----------|
|    | VERT                    | HORZ | DOWN                            | HORZ |           |           |
| 2  | 271                     | 0    | 271                             | 0    | 5-8       | 5-8       |
| 4  | 116                     | 0    | 116                             | 0    | 1-8       | 1-8       |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |           | WIND  | DEAD   | SOIL  |
|----|-----------|---------|-------------------------------|-----------|-------|--------|-------|
|    | COMBINED  | SNOW    | LIVE                          | PERM.LIVE |       |        |       |
| 2  | 188       | 144 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 44 / 0 | 0 / 0 |
| 4  | 83        | 50 / 0  | 0 / 0                         | 0 / 0     | 0 / 0 | 32 / 0 | 0 / 0 |

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

**BRACING**  
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.  
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.  
 ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

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

| MEMB. | CHORDS           |                  | FACTORED     |              | MAX. UNBRAC LENGTH | MEMB. | WEBS             |               | MAX. UNBRAC LENGTH |
|-------|------------------|------------------|--------------|--------------|--------------------|-------|------------------|---------------|--------------------|
|       | MAX. FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX (LC) | LC2 MAX (LC) |                    |       | MAX. FORCE (LBS) | MAX. CSI (LC) |                    |
| FR-TO |                  |                  |              |              |                    | FR-TO |                  |               |                    |
| 1-2   | 0 / 15           | -77.3            | -77.3        | 0.10 (1)     | 10.00              | 6-7   | -18 / 32         | 0.00 (1)      |                    |
| 2-7   | -25 / 0          | -77.3            | -77.3        | 0.06 (1)     | 6.25               |       |                  |               |                    |
| 7-3   | 0 / 6            | -77.3            | -77.3        | 0.10 (1)     | 10.00              |       |                  |               |                    |
| 5-3   | -106 / 0         | 0.0              | 0.0          | 0.01 (1)     | 7.81               |       |                  |               |                    |
| 2-6   | 0 / 0            | -17.5            | -17.5        | 0.06 (1)     | 10.00              |       |                  |               |                    |
| 6-5   | 0 / 0            | -17.5            | -17.5        | 0.13 (1)     | 10.00              |       |                  |               |                    |
| 5-4   | 0 / 0            | -17.5            | -17.5        | 0.13 (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

(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 (0.01")  
 ALLOWABLE DEFL.(TL)= L/360 (0.19")  
 CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.10 (3-7:1), BC=0.13 (5-6:1), WB=0.00 (6-7:1), SSI=0.09 (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) SHEAR SECTION  
 (PSI) (PLI) (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.

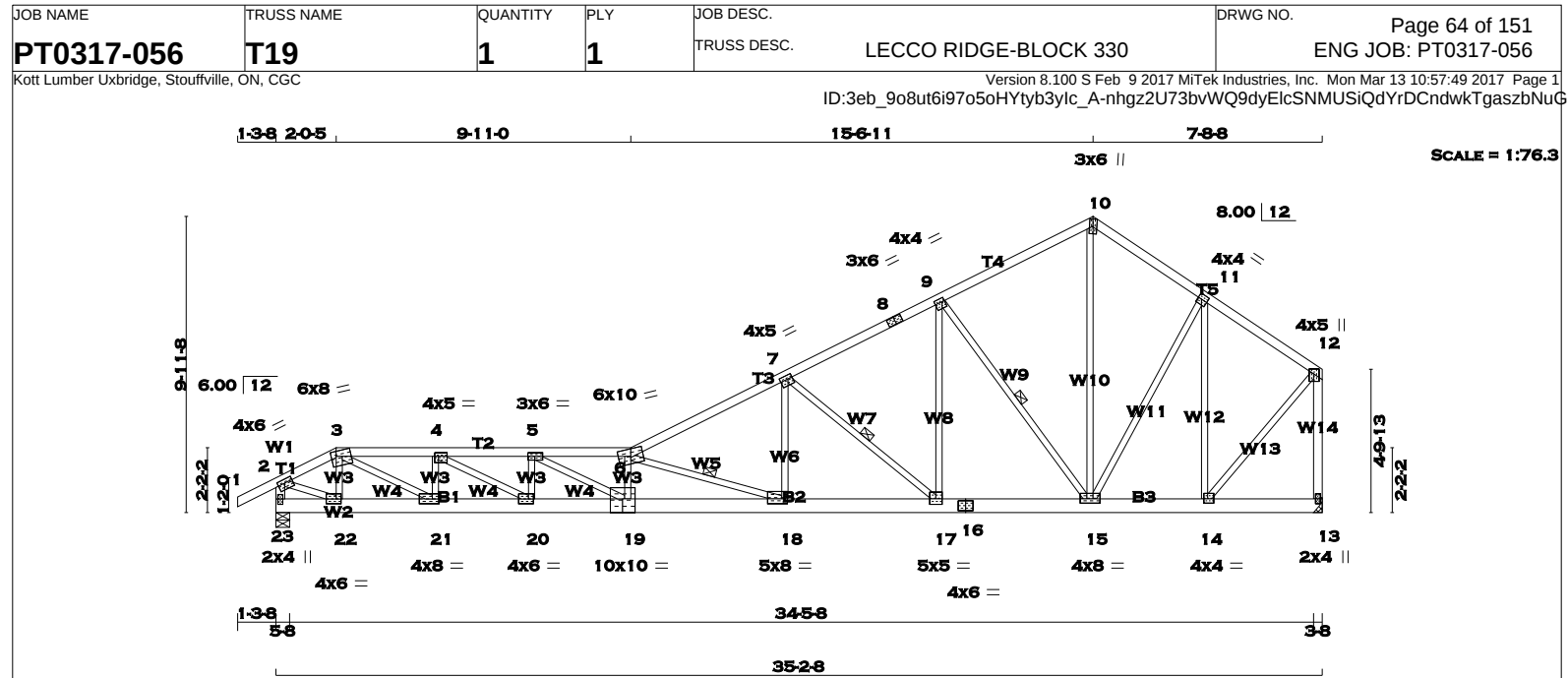
JSI GRIP= 0.12 (2) (INPUT = 0.90)  
 JSI METAL= 0.04 (2) (INPUT = 1.00)



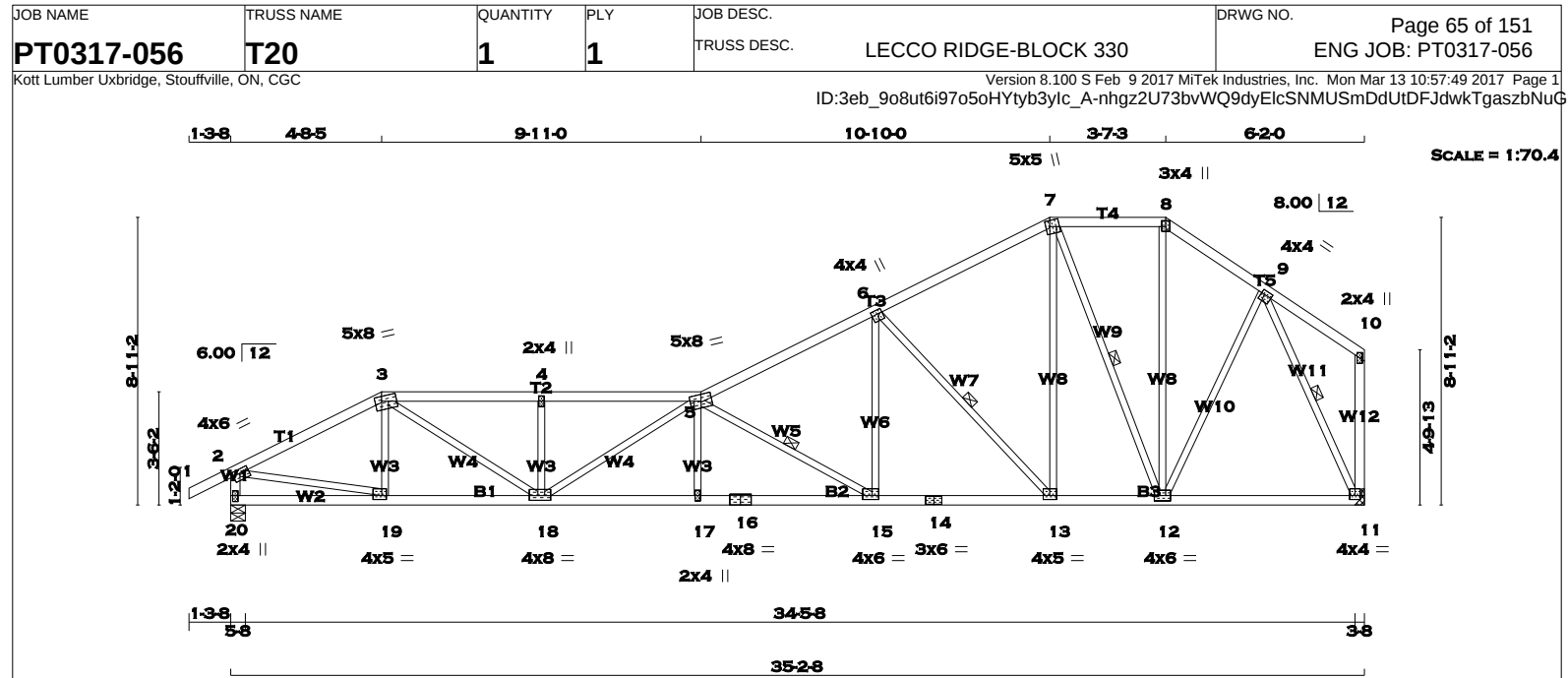
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|                                                                                    |         |        |            |      |                                                                                                                                                                                                                                                                       |      |                                                                                                                                                                                                                              |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
|------------------------------------------------------------------------------------|---------|--------|------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---|---------------------------------|------|------|--------|-------|--------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|------------------|--|--|--|--|
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR.                    |         |        |            |      | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b>                                                                                                                                               |      |                                                                                                                                                                                                                              |      |   |                                 |      |      |        |       | <b>DESIGN CRITERIA</b>                                                                                 |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| 1 - 3                                                                              | 2x4     | DRY    | No.2       | SPF  | FACTORED GROSS REACTION                                                                                                                                                                                                                                               |      |                                                                                                                                                                                                                              |      |   | MAXIMUM FACTORED GROSS REACTION |      |      |        |       | INPUT REQD                                                                                             |                       |                                                                                                                                                                                                                   |  |  | SPECIFIED LOADS: |  |  |  |  |
| 3 - 6                                                                              | 2x4     | DRY    | No.2       | SPF  | JT                                                                                                                                                                                                                                                                    | VERT | HORZ                                                                                                                                                                                                                         |      |   | JT                              | DOWN | HORZ | UPLIFT | IN-SX | IN-SX                                                                                                  | TOP CH. LL = 23.3 PSF |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| 6 - 8                                                                              | 2x4     | DRY    | No.2       | SPF  | 23                                                                                                                                                                                                                                                                    | 1775 | 0                                                                                                                                                                                                                            | 1775 | 0 | 13                              | 1670 | 0    | 0      | 5-8   | 5-8                                                                                                    | DL = 3.0 PSF          |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| 8 - 10                                                                             | 2x4     | DRY    | No.2       | SPF  |                                                                                                                                                                                                                                                                       |      |                                                                                                                                                                                                                              |      |   |                                 |      |      |        |       |                                                                                                        | BOT CH. LL = 0.0 PSF  |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| 10 - 12                                                                            | 2x4     | DRY    | No.2       | SPF  |                                                                                                                                                                                                                                                                       |      |                                                                                                                                                                                                                              |      |   |                                 |      |      |        |       |                                                                                                        | DL = 7.0 PSF          |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| 23 - 2                                                                             | 2x4     | DRY    | No.2       | SPF  |                                                                                                                                                                                                                                                                       |      |                                                                                                                                                                                                                              |      |   |                                 |      |      |        |       |                                                                                                        | TOTAL LOAD = 33.3 PSF |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| 13 - 12                                                                            | 2x4     | DRY    | No.2       | SPF  |                                                                                                                                                                                                                                                                       |      |                                                                                                                                                                                                                              |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| 23 - 19                                                                            | 2x6     | DRY    | 2100F 1.8E | SPF  |                                                                                                                                                                                                                                                                       |      |                                                                                                                                                                                                                              |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| 19 - 16                                                                            | 2x6     | DRY    | 2100F 1.8E | SPF  |                                                                                                                                                                                                                                                                       |      |                                                                                                                                                                                                                              |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| 16 - 13                                                                            | 2x6     | DRY    | 2100F 1.8E | SPF  |                                                                                                                                                                                                                                                                       |      |                                                                                                                                                                                                                              |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| ALL WEBS EXCEPT                                                                    | 2x3     | DRY    | No.2       | SPF  |                                                                                                                                                                                                                                                                       |      |                                                                                                                                                                                                                              |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| DRY: SEASONED LUMBER.                                                              |         |        |            |      | BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 23                                                                                                                                                                                                              |      |                                                                                                                                                                                                                              |      |   |                                 |      |      |        |       | LOADING IN ALL FLAT SECTIONS BASED ON A SLOPE OF 6.00/12                                               |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
|                                                                                    |         |        |            |      | <b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.11 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.                                                                                                      |      |                                                                                                                                                                                                                              |      |   |                                 |      |      |        |       | THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010             |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
|                                                                                    |         |        |            |      | ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.                                                                                                                                                                                            |      |                                                                                                                                                                                                                              |      |   |                                 |      |      |        |       | THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- TPIC 2011 |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| <b>PLATES (table is in inches)</b>                                                 |         |        |            |      | 1 - 2x4 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 6-18. DBS = 6-0-0 . CBF = 144 LBS.<br>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-17. DBS = 6-0-0 . CBF = 71 LBS.<br>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 9-15. DBS = 8-0-0 . CBF = 77 LBS. |      |                                                                                                                                                                                                                              |      |   |                                 |      |      |        |       | (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     |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| JT                                                                                 | TYPE    | PLATES | W          | LEN  | Y                                                                                                                                                                                                                                                                     | X    | 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. |      |   |                                 |      |      |        |       |                                                                                                        |                       | ALLOWABLE DEFL.(LL)= L/360 (1.17")<br>CALCULATED VERT. DEFL.(LL) = L/ 882 (0.48")<br>ALLOWABLE DEFL.(TL)= L/360 (1.17")<br>CALCULATED VERT. DEFL.(TL) = L/ 498 (0.85")                                            |  |  |                  |  |  |  |  |
| 2                                                                                  | TMVW-t  | MT20   | 4.0        | 6.0  | 1.50                                                                                                                                                                                                                                                                  | 2.75 | END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW                                                                                                           |      |   |                                 |      |      |        |       |                                                                                                        |                       | CSI: TC=0.66 (5-6:1) , BC=0.53 (18-19:1) , WB=0.90 (6-18:1) , SSI=0.17 (9-10:1)                                                                                                                                   |  |  |                  |  |  |  |  |
| 3                                                                                  | TTWW-m  | MT20   | 6.0        | 8.0  | 2.00                                                                                                                                                                                                                                                                  | 2.00 | <b>LOADING</b><br>TOTAL LOAD CASES: (3)                                                                                                                                                                                      |      |   |                                 |      |      |        |       |                                                                                                        |                       | DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10<br>COMP=1.10 SHEAR=1.10 TENS= 1.10                                                                                                                                         |  |  |                  |  |  |  |  |
| 4                                                                                  | TMWW-t  | MT20   | 4.0        | 5.0  | 1.50                                                                                                                                                                                                                                                                  | 1.50 | CHORDS                                                                                                                                                                                                                       |      |   |                                 |      |      |        |       |                                                                                                        |                       | COMPANION LIVE LOAD FACTOR = 0.50                                                                                                                                                                                 |  |  |                  |  |  |  |  |
| 5                                                                                  | TMWW-t  | MT20   | 3.0        | 6.0  | 1.50                                                                                                                                                                                                                                                                  | 2.75 | MEMB. MAX. FACTORED FORCE (LBS)                                                                                                                                                                                              |      |   |                                 |      |      |        |       |                                                                                                        |                       | TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .                                                                                                                |  |  |                  |  |  |  |  |
| 6                                                                                  | TTWW-m  | MT20   | 6.0        | 10.0 |                                                                                                                                                                                                                                                                       |      | FACTORED VERT. LOAD LC1 MAX. (PLF) CSI (LC) UNBRAC                                                                                                                                                                           |      |   |                                 |      |      |        |       |                                                                                                        |                       | NAIL VALUES                                                                                                                                                                                                       |  |  |                  |  |  |  |  |
| 7                                                                                  | TMWW-t  | MT20   | 4.0        | 5.0  | 1.50                                                                                                                                                                                                                                                                  | 1.75 | MEMB. MAX. FACTORED FORCE (LBS) MAX. CSI (LC)                                                                                                                                                                                |      |   |                                 |      |      |        |       |                                                                                                        |                       | PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)                                                                                                                                                                   |  |  |                  |  |  |  |  |
| 8                                                                                  | TS-t    | MT20   | 3.0        | 6.0  |                                                                                                                                                                                                                                                                       |      | FR-TO FROM TO LENGTH FR-TO                                                                                                                                                                                                   |      |   |                                 |      |      |        |       |                                                                                                        |                       | MAX MIN MAX MIN MAX MIN                                                                                                                                                                                           |  |  |                  |  |  |  |  |
| 9                                                                                  | TMWW-t  | MT20   | 4.0        | 4.0  | 1.50                                                                                                                                                                                                                                                                  | 1.00 | 1- 2 0/ 23 -77.3 -77.3 0.10 (1) 10.00 22- 3 -503/ 0 0.07 (1)                                                                                                                                                                 |      |   |                                 |      |      |        |       |                                                                                                        |                       | MT20 618 354 1667 822 2284 1656                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| 10                                                                                 | TTW+m   | MT20   | 3.0        | 6.0  | Edge                                                                                                                                                                                                                                                                  |      | 2- 3 -2085/ 0 -77.3 -77.3 0.09 (1) 4.65 3-21 0/ 2617 0.59 (1)                                                                                                                                                                |      |   |                                 |      |      |        |       |                                                                                                        |                       | PLATE PLACEMENT TOL. = 0.250 inches                                                                                                                                                                               |  |  |                  |  |  |  |  |
| 11                                                                                 | TMWW-t  | MT20   | 4.0        | 4.0  | 2.00                                                                                                                                                                                                                                                                  | 1.50 | 3- 4 -4138/ 0 -77.3 -77.3 0.29 (1) 3.28 21- 4 -1286/ 0 0.19 (1)                                                                                                                                                              |      |   |                                 |      |      |        |       |                                                                                                        |                       | PLATE ROTATION TOL. = 5.0 Deg.                                                                                                                                                                                    |  |  |                  |  |  |  |  |
| 12                                                                                 | TMWW+p  | MT20   | 4.0        | 5.0  | 2.00                                                                                                                                                                                                                                                                  | 1.75 | 4- 5 -5965/ 0 -77.3 -77.3 0.46 (1) 2.56 4-20 0/ 2092 0.47 (1)                                                                                                                                                                |      |   |                                 |      |      |        |       |                                                                                                        |                       | JSI GRIP= 0.90 (21) (INPUT = 0.90 )                                                                                                                                                                               |  |  |                  |  |  |  |  |
| 13                                                                                 | BMV1+p  | MT20   | 2.0        | 4.0  |                                                                                                                                                                                                                                                                       |      | 5- 6 -7010/ 0 -77.3 -77.3 0.66 (1) 2.11 20- 5 -819/ 0 0.12 (1)                                                                                                                                                               |      |   |                                 |      |      |        |       |                                                                                                        |                       | JSI METAL= 0.95 (19) (INPUT = 1.00 )                                                                                                                                                                              |  |  |                  |  |  |  |  |
| 14                                                                                 | BMWW-t  | MT20   | 4.0        | 4.0  | 1.75                                                                                                                                                                                                                                                                  | 1.50 | 6- 7 -3806/ 0 -77.3 -77.3 0.48 (1) 3.29 5-19 0/ 1196 0.27 (1)                                                                                                                                                                |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| 15                                                                                 | BMWWW-t | MT20   | 4.0        | 8.0  | 1.75                                                                                                                                                                                                                                                                  | 4.00 | 7- 8 -2214/ 0 -77.3 -77.3 0.30 (1) 4.35 19- 6 -751/ 0 0.11 (1)                                                                                                                                                               |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| 16                                                                                 | BS-t    | MT20   | 4.0        | 6.0  |                                                                                                                                                                                                                                                                       |      | 8- 9 -2214/ 0 -77.3 -77.3 0.30 (1) 4.35 6-18 -3843/ 0 0.90 (1)                                                                                                                                                               |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| 17                                                                                 | BMWW-t  | MT20   | 5.0        | 5.0  | 2.25                                                                                                                                                                                                                                                                  | 2.50 | 9-10 -1214/ 0 -77.3 -77.3 0.26 (1) 5.53 18- 7 0/ 1494 0.34 (1)                                                                                                                                                               |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| 18                                                                                 | BMWW-t  | MT20   | 5.0        | 8.0  | 2.00                                                                                                                                                                                                                                                                  | 2.25 | 10-11 -1294/ 0 -77.3 -77.3 0.16 (1) 5.52 7-17 -1886/ 0 0.58 (1)                                                                                                                                                              |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| 19                                                                                 | BSWW-l  | MT20   | 10.0       | 10.0 | Edge                                                                                                                                                                                                                                                                  | 5.00 | 11-12 -1006/ 0 -77.3 -77.3 0.15 (1) 6.07 17- 9 0/ 1264 0.28 (1)                                                                                                                                                              |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| 20                                                                                 | BMWW-t  | MT20   | 4.0        | 6.0  | 2.00                                                                                                                                                                                                                                                                  | 2.00 | 23- 2 -1800/ 0 0.0 0.0 0.18 (1) 6.23 9-15 -1545/ 0 0.77 (1)                                                                                                                                                                  |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| 21                                                                                 | BMWW-t  | MT20   | 4.0        | 8.0  | 2.00                                                                                                                                                                                                                                                                  | 2.75 | 13-12 -1639/ 0 0.0 0.0 0.61 (1) 6.47 15-10 0/ 970 0.22 (1)                                                                                                                                                                   |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| 22                                                                                 | BMWW-t  | MT20   | 4.0        | 6.0  | 2.00                                                                                                                                                                                                                                                                  | 2.00 | 23-22 0/ 0 -17.5 -17.5 0.03 (1) 10.00 14-11 -886/ 0 0.84 (1)                                                                                                                                                                 |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| 23                                                                                 | BMV1+p  | MT20   | 2.0        | 4.0  | 2.25                                                                                                                                                                                                                                                                  | 1.00 | 22-21 0/ 1833 -17.5 -17.5 0.15 (1) 10.00 2-22 0/ 1981 0.45 (1)                                                                                                                                                               |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.                  |         |        |            |      |                                                                                                                                                                                                                                                                       |      | 21-20 0/ 4138 -17.5 -17.5 0.26 (1) 10.00 14-12 0/ 1276 0.29 (1)                                                                                                                                                              |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
| A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.   |         |        |            |      |                                                                                                                                                                                                                                                                       |      | 20-19 0/ 5965 -17.5 -17.5 0.47 (1) 10.00                                                                                                                                                                                     |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
|                                                                                    |         |        |            |      |                                                                                                                                                                                                                                                                       |      | 19-18 0/ 7053 -17.5 -17.5 0.53 (1) 10.00                                                                                                                                                                                     |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
|                                                                                    |         |        |            |      |                                                                                                                                                                                                                                                                       |      | 18-17 0/ 3422 -17.5 -17.5 0.20 (1) 10.00                                                                                                                                                                                     |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
|                                                                                    |         |        |            |      |                                                                                                                                                                                                                                                                       |      | 17-16 0/ 1981 -17.5 -17.5 0.12 (1) 10.00                                                                                                                                                                                     |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
|                                                                                    |         |        |            |      |                                                                                                                                                                                                                                                                       |      | 16-15 0/ 1981 -17.5 -17.5 0.12 (1) 10.00                                                                                                                                                                                     |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
|                                                                                    |         |        |            |      |                                                                                                                                                                                                                                                                       |      | 15-14 0/ 852 -17.5 -17.5 0.06 (1) 10.00                                                                                                                                                                                      |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
|                                                                                    |         |        |            |      |                                                                                                                                                                                                                                                                       |      | 14-13 0/ 0 -17.5 -17.5 0.02 (3) 10.00                                                                                                                                                                                        |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                                                                                                                   |  |  |                  |  |  |  |  |
|  |         |        |            |      |                                                                                                                                                                                                                                                                       |      | <div>RECEIVED<br/>TOWN OF MILTON<br/>MAR 29, 2017<br/>17-5010<br/>BUILDING DIVISION</div>                                                                                                                                    |      |   |                                 |      |      |        |       |                                                                                                        |                       | <div>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.</div> |  |  |                  |  |  |  |  |
|                                                                                    |         |        |            |      |                                                                                                                                                                                                                                                                       |      |                                                                                                                                                                                                                              |      |   |                                 |      |      |        |       |                                                                                                        |                       |                                                                                                                              |  |  |                  |  |  |  |  |



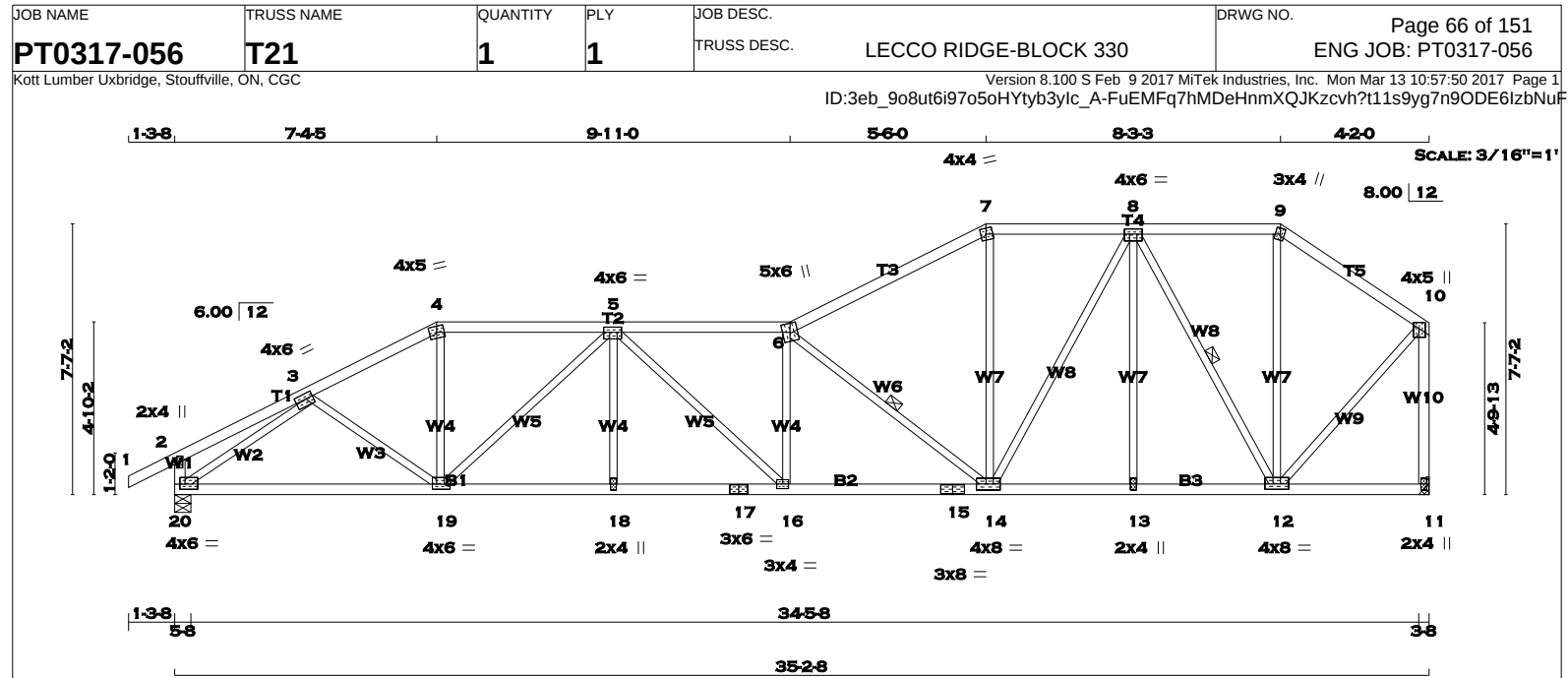
|                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  |
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| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR.<br>1 - 3 2x4 DRY No.2 SPF<br>3 - 5 2x4 DRY No.2 SPF<br>5 - 7 2x4 DRY No.2 SPF<br>7 - 8 2x4 DRY No.2 SPF<br>8 - 10 2x4 DRY No.2 SPF<br>20 - 2 2x4 DRY No.2 SPF<br>11 - 10 2x4 DRY No.2 SPF<br>20 - 16 2x4 DRY No.2 SPF<br>16 - 14 2x4 DRY No.2 SPF<br>14 - 11 2x4 DRY No.2 SPF<br><br>ALL WEBS 2x3 DRY No.2 SPF<br>EXCEPT<br><br>DRY: SEASONED LUMBER. |  |  |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br>FACTORED MAXIMUM FACTORED INPUT REQD<br>GROSS REACTION GROSS REACTION BRG BRG<br>JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX<br>20 1775 0 1775 0 0 5-8 5-8<br>11 1670 0 1670 0 0 HANGER BY OTHERS<br>MIN. SEAT SIZE: 3-8<br><br><b>UNFACTORED REACTIONS</b><br>1ST LCASE MAX./MIN. COMPONENT REACTIONS<br>JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL<br>20 1243 883 / 0 0 / 0 0 / 0 0 / 0 360 / 0 0 / 0<br>11 1172 820 / 0 0 / 0 0 / 0 0 / 0 352 / 0 0 / 0<br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 20<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.36 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.<br><br>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-15. DBS = 6-0-0 . CBF = 85 LBS.<br>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 6-13, 9-11. DBS = 8-0-0 . CBF = 85 LBS.<br>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-12. DBS = 14-0-0 . CBF = 84 LBS.<br><br>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.<br><br>END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW<br><br><b>LOADING</b><br>TOTAL LOAD CASES: (3)<br><br>C H O R D S W E B S<br>MAX. FACTORED MAX. FACTORED MAX. FACTORED<br>MEMB. FORCE VERT. LOAD LC1 MAX. MAX. MEMB. FORCE MAX.<br>(LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO (LBS) CSI (LC)<br>FR-TO FROM TO<br>1-2 0 / 23 -77.3 -77.3 0.10 (1) 10.00 19-3 -286 / 0 0.06 (1)<br>2-3 -2389 / 0 -77.3 -77.3 0.30 (1) 4.19 3-18 0 / 1875 0.42 (1)<br>3-4 -3699 / 0 -77.3 -77.3 0.41 (1) 3.36 18-4 -453 / 0 0.09 (1)<br>4-5 -3699 / 0 -77.3 -77.3 0.41 (1) 3.36 18-5 -885 / 0 0.51 (1)<br>5-6 -2763 / 0 -77.3 -77.3 0.42 (1) 3.83 17-5 0 / 97 0.03 (3)<br>6-7 -1534 / 0 -77.3 -77.3 0.32 (1) 4.97 5-15 -2264 / 0 0.64 (1)<br>7-8 -1005 / 0 -77.3 -77.3 0.14 (1) 6.09 15-6 0 / 1268 0.29 (1)<br>8-9 -1217 / 0 -77.3 -77.3 0.09 (1) 5.73 6-13 -1673 / 0 0.74 (1)<br>9-10 0 / 13 -77.3 -77.3 0.10 (1) 10.00 13-7 0 / 1275 0.29 (1)<br>20-2 -1740 / 0 0.0 0.0 0.18 (1) 6.32 7-12 -965 / 0 0.58 (1)<br>11-10 -98 / 0 0.0 0.0 0.04 (1) 7.81 12-8 0 / 436 0.10 (1)<br>12-9 0 / 634 0.14 (1)<br>20-19 0 / 0 -17.5 -17.5 0.09 (3) 10.00 2-19 0 / 2169 0.49 (1)<br>19-18 0 / 2126 -17.5 -17.5 0.39 (1) 10.00 9-11 -1692 / 0 0.59 (1)<br>18-17 0 / 4443 -17.5 -17.5 0.78 (1) 10.00<br>17-16 0 / 4440 -17.5 -17.5 0.78 (1) 10.00<br>16-15 0 / 4440 -17.5 -17.5 0.78 (1) 10.00<br>15-14 0 / 2493 -17.5 -17.5 0.47 (1) 10.00<br>14-13 0 / 2493 -17.5 -17.5 0.47 (1) 10.00<br>13-12 0 / 1367 -17.5 -17.5 0.32 (1) 10.00<br>12-11 0 / 726 -17.5 -17.5 0.21 (1) 10.00 |  |  |  | <b>DESIGN CRITERIA</b><br><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF<br><br><b>SPACING = 24.0 IN. C/C</b><br><br>LOADING IN ALL FLAT SECTIONS BASED ON A SLOPE OF 6.00/12<br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>(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<br><br>ALLOWABLE DEFL.(LL)= L/360 (1.17")<br>CALCULATED VERT. DEFL.(LL) = L/999 (0.31")<br>ALLOWABLE DEFL.(TL)= L/360 (1.17")<br>CALCULATED VERT. DEFL.(TL) = L/770 (0.55")<br><br>CSI: TC=0.42 (5-6:1), BC=0.78 (17-18:1), WB=0.74 (6-13:1), SSI=0.18 (3-4:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10<br>COMP=1.10 SHEAR=1.10 TENS= 1.10<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.90 (19) (INPUT = 0.90 )<br>JSI METAL= 0.87 (16) (INPUT = 1.00 ) |  |  |  |
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MAR 29, 2017  
17-5010  
BUILDING DIVISION

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.





TOTAL WEIGHT = 159 lb [M]

| LUMBER          |      |        |        | N. L. G. A. RULES |      |        |        |
|-----------------|------|--------|--------|-------------------|------|--------|--------|
| CHORDS          | SIZE | LUMBER | DESCR. | CHORDS            | SIZE | LUMBER | DESCR. |
| 1 - 4           | 2x4  | DRY    | No.2   | SPF               |      |        |        |
| 4 - 6           | 2x4  | DRY    | No.2   | SPF               |      |        |        |
| 6 - 7           | 2x4  | DRY    | No.2   | SPF               |      |        |        |
| 7 - 9           | 2x4  | DRY    | No.2   | SPF               |      |        |        |
| 9 - 10          | 2x4  | DRY    | No.2   | SPF               |      |        |        |
| 20 - 2          | 2x4  | DRY    | No.2   | SPF               |      |        |        |
| 11 - 10         | 2x4  | DRY    | No.2   | SPF               |      |        |        |
| 20 - 17         | 2x4  | DRY    | No.2   | SPF               |      |        |        |
| 17 - 15         | 2x4  | DRY    | No.2   | SPF               |      |        |        |
| 15 - 11         | 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                           | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 3                           | TMWW-t  | MT20   | 4.0 | 6.0 | 1.75 | 2.50 |
| 4                           | TTW-m   | MT20   | 4.0 | 5.0 |      |      |
| 5                           | TMWWW-t | MT20   | 4.0 | 6.0 | 1.75 | 2.00 |
| 6                           | TTWW+m  | MT20   | 5.0 | 6.0 |      |      |
| 7                           | TTW-m   | MT20   | 4.0 | 4.0 | 2.00 | 1.75 |
| 8                           | TMWWW-t | MT20   | 4.0 | 6.0 | 1.75 | 3.00 |
| 9                           | TTW+m   | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 10                          | TMVW+p  | MT20   | 4.0 | 5.0 | 2.00 | 1.75 |
| 11                          | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 12                          | BMWWW-t | MT20   | 4.0 | 8.0 | 1.75 | 4.00 |
| 13                          | BMW+w   | MT20   | 2.0 | 4.0 |      |      |
| 14                          | BMWWW-t | MT20   | 4.0 | 8.0 | 2.00 | 3.25 |
| 15                          | BS-t    | MT20   | 3.0 | 8.0 |      |      |
| 16                          | BMWW-t  | MT20   | 3.0 | 4.0 |      |      |
| 17                          | BS-t    | MT20   | 3.0 | 6.0 |      |      |
| 18                          | BMW+w   | MT20   | 2.0 | 4.0 |      |      |
| 19                          | BMWWW-t | MT20   | 4.0 | 6.0 | 1.75 | 1.50 |
| 20                          | BMVW1-t | MT20   | 4.0 | 6.0 | 1.75 | 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 |      |        |                  | MAXIMUM FACTORED |     |      |      | INPUT  |       |     |     | REQRD |      |        |       |
|----------|----------|------|------|----------|------|--------|------------------|------------------|-----|------|------|--------|-------|-----|-----|-------|------|--------|-------|
| JT       | COMBINED | SNOW | LIVE | DOWN     | HORZ | UPLIFT | IN-SX            | BRG              | BRG | DOWN | HORZ | UPLIFT | IN-SX | BRG | BRG | DOWN  | HORZ | UPLIFT | IN-SX |
| 20       | 1775     | 0    | 1775 | 0        | 0    | 0      | 5-8              | 5-8              |     |      |      |        |       |     |     |       |      |        |       |
| 11       | 1670     | 0    | 1670 | 0        | 0    | 0      | HANGER BY OTHERS |                  |     |      |      |        |       |     |     |       |      |        |       |

| UNFACTORED REACTIONS |           |           |                     |       |       |         |       |
|----------------------|-----------|-----------|---------------------|-------|-------|---------|-------|
| JT                   | 1ST LCASE | MAX./MIN. | COMPONENT REACTIONS |       |       |         |       |
| 20                   | 1243      | 883 / 0   | 0 / 0               | 0 / 0 | 0 / 0 | 360 / 0 | 0 / 0 |
| 11                   | 1172      | 820 / 0   | 0 / 0               | 0 / 0 | 0 / 0 | 352 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 20

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.47 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 6-14. DBS = 8-0-0 . CBF = 91 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 8-12. DBS = 10-0-0 . CBF = 79 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: (3) |               |             |          |
|-------------|---------------|------------------|--------------------|-----------------------|---------------|-------------|----------|
| C H O R D S |               |                  |                    | W E B S               |               |             |          |
| MEMB.       | MAX. FACTORED | FACTORED         | FACTORED           | MEMB.                 | MAX. FACTORED | FACTORED    | FACTORED |
|             | FORCE (LBS)   | VERT. LOAD (PLF) | LC1 MAX (CSI (LC)) |                       | FORCE (LBS)   | FORCE (LBS) | MAX (LC) |
| FR-TO       |               | FROM TO          | LENGTH             | FR-TO                 |               |             |          |
| 1-2         | 0 / 23        | -77.3            | -77.3 0.10 (1)     | 10.00                 | 3-19          | 0 / 137     | 0.03 (3) |
| 2-3         | 0 / 11        | -77.3            | -77.3 0.13 (1)     | 10.00                 | 19-4          | 0 / 814     | 0.18 (1) |
| 3-4         | -2423 / 0     | -77.3            | -77.3 0.21 (1)     | 4.25                  | 19-5          | -1113 / 0   | 0.89 (1) |
| 4-5         | -2174 / 0     | -77.3            | -77.3 0.39 (1)     | 4.22                  | 18-5          | 0 / 72      | 0.03 (3) |
| 5-6         | -3233 / 0     | -77.3            | -77.3 0.49 (1)     | 3.47                  | 5-16          | 0 / 339     | 0.08 (1) |
| 6-7         | -2046 / 0     | -77.3            | -77.3 0.54 (1)     | 4.17                  | 16-6          | -140 / 26   | 0.05 (1) |
| 7-8         | -1838 / 0     | -77.3            | -77.3 0.26 (1)     | 4.68                  | 6-14          | -1811 / 0   | 0.64 (1) |
| 8-9         | -862 / 0      | -77.3            | -77.3 0.22 (1)     | 6.25                  | 14-7          | 0 / 575     | 0.13 (1) |
| 9-10        | -1033 / 0     | -77.3            | -77.3 0.25 (1)     | 5.85                  | 14-8          | 0 / 757     | 0.17 (1) |
| 20-2        | -223 / 0      | 0.0              | 0.0 0.02 (1)       | 7.81                  | 13-8          | 0 / 66      | 0.02 (3) |
| 11-10       | -1640 / 0     | 0.0              | 0.0 0.67 (1)       | 6.47                  | 8-12          | -1262 / 0   | 0.59 (1) |
|             |               |                  |                    |                       | 12-9          | 0 / 288     | 0.06 (1) |
| 20-19       | 0 / 2044      | -17.5            | -17.5 0.45 (1)     | 10.00                 | 20-3          | -2533 / 0   | 0.86 (1) |
| 19-18       | 0 / 2986      | -17.5            | -17.5 0.59 (1)     | 10.00                 | 12-10         | 0 / 1246    | 0.28 (1) |
| 18-17       | 0 / 2986      | -17.5            | -17.5 0.53 (1)     | 10.00                 |               |             |          |
| 17-16       | 0 / 2986      | -17.5            | -17.5 0.53 (1)     | 10.00                 |               |             |          |
| 16-15       | 0 / 3236      | -17.5            | -17.5 0.58 (1)     | 10.00                 |               |             |          |
| 15-14       | 0 / 3236      | -17.5            | -17.5 0.58 (1)     | 10.00                 |               |             |          |
| 14-13       | 0 / 1472      | -17.5            | -17.5 0.29 (1)     | 10.00                 |               |             |          |
| 13-12       | 0 / 1472      | -17.5            | -17.5 0.28 (1)     | 10.00                 |               |             |          |
| 12-11       | 0 / 0         | -17.5            | -17.5 0.08 (3)     | 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

LOADING IN ALL FLAT SECTIONS 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 (1.17")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.20")  
ALLOWABLE DEFL.(TL)= L/360 (1.17")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.35")

CSI: TC=0.67 (10-11:1), BC=0.59 (18-19:1), WB=0.89 (5-19:1), SSI=0.18 (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) SHEAR SECTION (PSI) (PLI) (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.

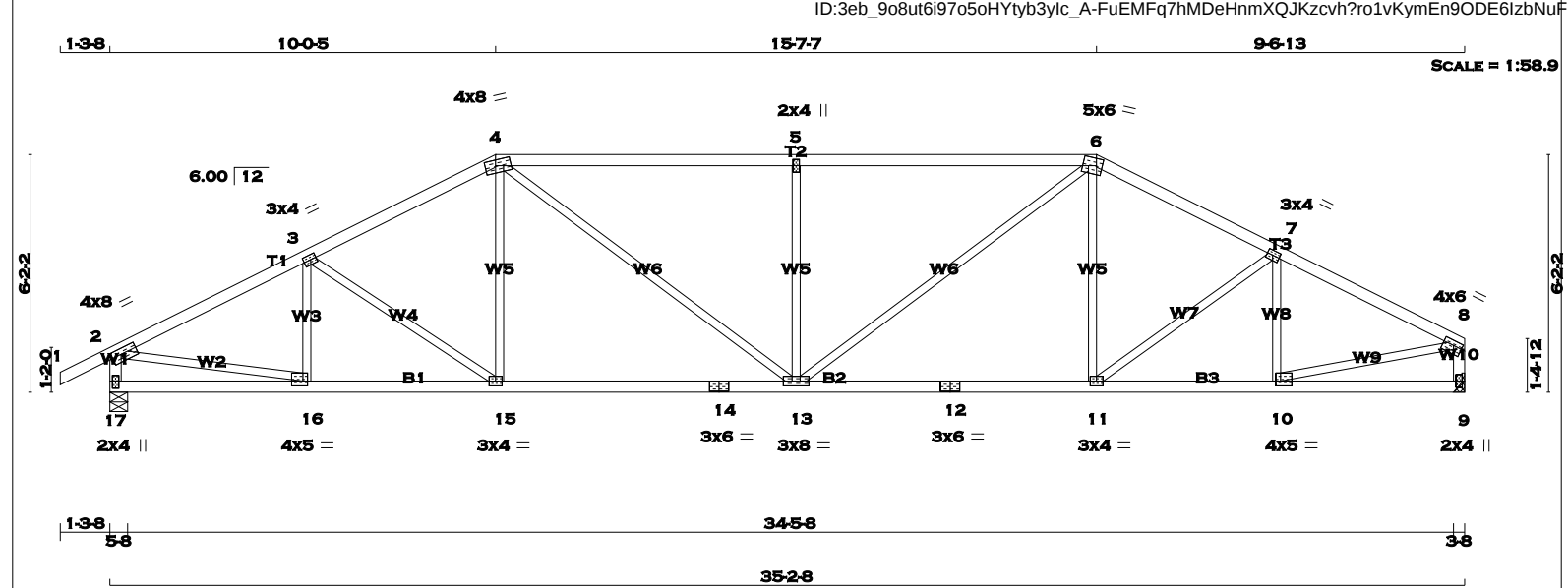
JSI GRIP= 0.90 (14) (INPUT = 0.90 )  
JSI METAL= 0.80 (15) (INPUT = 1.00 )



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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.





TOTAL WEIGHT = 138 lb  
[M][F]

| LUMBER                |      |        |        |
|-----------------------|------|--------|--------|
| N. L. G. A. RULES     |      |        |        |
| CHORDS                | SIZE | LUMBER | DESCR. |
| 1 - 4                 | 2x4  | DRY    | No.2   |
| 4 - 6                 | 2x4  | DRY    | No.2   |
| 6 - 8                 | 2x4  | DRY    | No.2   |
| 17 - 2                | 2x4  | DRY    | No.2   |
| 9 - 8                 | 2x4  | DRY    | No.2   |
| 17 - 14               | 2x4  | DRY    | No.2   |
| 14 - 12               | 2x4  | DRY    | No.2   |
| 12 - 9                | 2x4  | DRY    | No.2   |
| ALL WEBS              | 2x3  | DRY    | No.2   |
| EXCEPT                |      |        | SPF    |
| DRY: SEASONED LUMBER. |      |        |        |

| PLATES (table is in inches)                                                      |        |        |     |     |           |
|----------------------------------------------------------------------------------|--------|--------|-----|-----|-----------|
| JT                                                                               | TYPE   | PLATES | W   | LEN | X         |
| 2                                                                                | TMVW-t | MT20   | 4.0 | 8.0 | 1.75 3.00 |
| 3                                                                                | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 4                                                                                | TTWW-m | MT20   | 4.0 | 8.0 | 1.75 3.25 |
| 5                                                                                | TMW+w  | MT20   | 2.0 | 4.0 |           |
| 6                                                                                | TTWW-m | MT20   | 5.0 | 6.0 | 2.25 1.75 |
| 7                                                                                | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 8                                                                                | TMVW-t | MT20   | 4.0 | 6.0 | 1.50 2.75 |
| 9                                                                                | BMV1+p | MT20   | 2.0 | 4.0 |           |
| 10                                                                               | BMVW-t | MT20   | 4.0 | 5.0 | 1.50 1.50 |
| 11                                                                               | BMVW-t | MT20   | 3.0 | 4.0 |           |
| 12                                                                               | BS-t   | MT20   | 3.0 | 6.0 |           |
| 13                                                                               | BMVW-t | MT20   | 3.0 | 8.0 |           |
| 14                                                                               | BS-t   | MT20   | 3.0 | 6.0 |           |
| 15                                                                               | BMVW-t | MT20   | 3.0 | 4.0 |           |
| 16                                                                               | BMVW-t | MT20   | 4.0 | 5.0 | 1.50 1.50 |
| 17                                                                               | 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. |        |        |     |     |           |



| DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER |                         |      |                                 |      |           |                  |       |
|-----------------------------------------------------------------------------------------------|-------------------------|------|---------------------------------|------|-----------|------------------|-------|
| <u>BEARINGS</u>                                                                               |                         |      |                                 |      |           |                  |       |
|                                                                                               | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG | REQRD BRG        |       |
| JT                                                                                            | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX            | IN-SX |
| 17                                                                                            | 1775                    | 0    | 1775                            | 0    | 0         | 5-8              | 5-8   |
| 9                                                                                             | 1670                    | 0    | 1670                            | 0    | 0         | HANGER BY OTHERS |       |
| MIN. SEAT SIZE: 3-8                                                                           |                         |      |                                 |      |           |                  |       |

| UNFACTORED REACTIONS |           |         |       |           |       |         |       |
|----------------------|-----------|---------|-------|-----------|-------|---------|-------|
| JT                   | 1ST LCASE | SNOW    | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 17                   | 1243      | 883 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 360 / 0 | 0 / 0 |
| 9                    | 1172      | 820 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 352 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 17

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.37 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: (3) |                           |                          |          |
|---------|---------------------------|------------------|----------------|-----------------------|---------------------------|--------------------------|----------|
| CHORDS  |                           |                  |                | WEBS                  |                           |                          |          |
| MEMB.   | MAX. FACTORED FORCE (LBS) | VERT. LOAD (PLF) | MAX LC1 (LC)   | MEMB.                 | MAX. FACTORED FORCE (LBS) | MAX UNBRACED LENGTH (LC) | FR-TO    |
| 1-2     | 0 / 23                    | -77.3            | -77.3 0.10 (1) | 10.00                 | 16-3                      | -290 / 0                 | 0.06 (1) |
| 2-3     | -2446 / 0                 | -77.3            | -77.3 0.33 (1) | 4.13                  | 3-15                      | -193 / 0                 | 0.12 (1) |
| 3-4     | -2308 / 0                 | -77.3            | -77.3 0.31 (1) | 4.24                  | 15-4                      | 0 / 229                  | 0.05 (3) |
| 4-5     | -2607 / 0                 | -77.3            | -77.3 0.81 (1) | 3.37                  | 4-13                      | 0 / 698                  | 0.16 (1) |
| 5-6     | -2607 / 0                 | -77.3            | -77.3 0.81 (1) | 3.37                  | 13-5                      | -745 / 0                 | 0.45 (1) |
| 6-7     | -2244 / 0                 | -77.3            | -77.3 0.28 (1) | 4.32                  | 13-6                      | 0 / 771                  | 0.17 (1) |
| 7-8     | -2274 / 0                 | -77.3            | -77.3 0.29 (1) | 4.30                  | 11-6                      | 0 / 164                  | 0.05 (3) |
| 17-2    | -1732 / 0                 | 0.0              | 0.0 0.18 (1)   | 6.32                  | 11-7                      | -76 / 0                  | 0.05 (1) |
| 9-8     | -1629 / 0                 | 0.0              | 0.0 0.17 (1)   | 6.48                  | 10-7                      | -381 / 0                 | 0.09 (1) |
|         |                           |                  |                |                       | 2-16                      | 0 / 2235                 | 0.50 (1) |
|         |                           |                  |                |                       | 10-8                      | 0 / 2100                 | 0.47 (1) |
| 17-16   | 0 / 0                     | -17.5            | -17.5 0.10 (3) | 10.00                 |                           |                          |          |
| 16-15   | 0 / 2205                  | -17.5            | -17.5 0.45 (1) | 10.00                 |                           |                          |          |
| 15-14   | 0 / 2049                  | -17.5            | -17.5 0.44 (1) | 10.00                 |                           |                          |          |
| 14-13   | 0 / 2049                  | -17.5            | -17.5 0.44 (1) | 10.00                 |                           |                          |          |
| 13-12   | 0 / 1991                  | -17.5            | -17.5 0.43 (1) | 10.00                 |                           |                          |          |
| 12-11   | 0 / 1991                  | -17.5            | -17.5 0.43 (1) | 10.00                 |                           |                          |          |
| 11-10   | 0 / 2050                  | -17.5            | -17.5 0.42 (1) | 10.00                 |                           |                          |          |
| 10-9    | 0 / 0                     | -17.5            | -17.5 0.09 (3) | 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**

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 (1.17")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.15")  
ALLOWABLE DEFL.(TL)= L/360 (1.17")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.29")

CSI: TC=0.81 (5-6:1), BC=0.45 (15-16:1), WB=0.50 (2-16:1), SSI=0.29 (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) SHEAR SECTION (PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

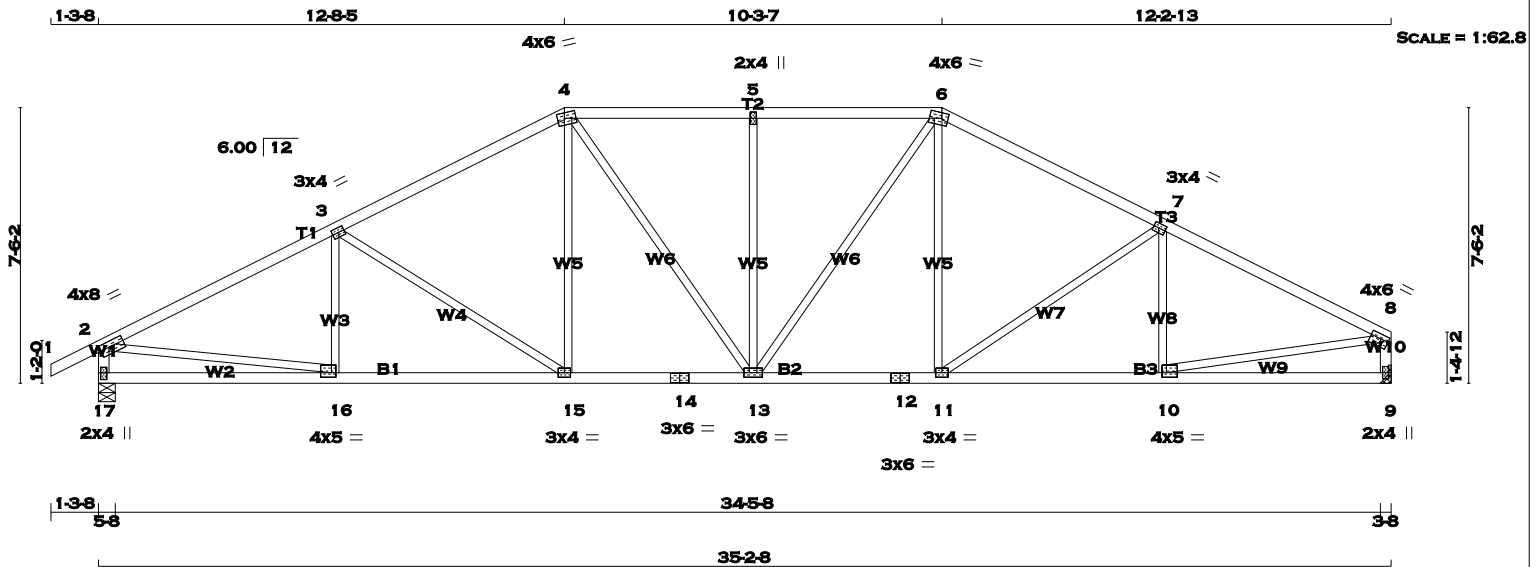
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (6) (INPUT = 0.90 )  
JSI METAL= 0.66 (16) (INPUT = 1.00 )

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TOTAL WEIGHT = 146 lb  
[M][F]

| LUMBER                |      |        |        | N. L. G. A. RULES     |      |        |        |
|-----------------------|------|--------|--------|-----------------------|------|--------|--------|
| CHORDS                | SIZE | LUMBER | DESCR. | CHORDS                | SIZE | LUMBER | DESCR. |
| 1 - 4                 | 2x4  | DRY    | No.2   | 1 - 4                 | 2x4  | DRY    | No.2   |
| 4 - 6                 | 2x4  | DRY    | No.2   | 4 - 6                 | 2x4  | DRY    | No.2   |
| 6 - 8                 | 2x4  | DRY    | No.2   | 6 - 8                 | 2x4  | DRY    | No.2   |
| 17 - 2                | 2x4  | DRY    | No.2   | 17 - 2                | 2x4  | DRY    | No.2   |
| 9 - 8                 | 2x4  | DRY    | No.2   | 9 - 8                 | 2x4  | DRY    | No.2   |
| 17 - 14               | 2x4  | DRY    | No.2   | 17 - 14               | 2x4  | DRY    | No.2   |
| 14 - 12               | 2x4  | DRY    | No.2   | 14 - 12               | 2x4  | DRY    | No.2   |
| 12 - 9                | 2x4  | DRY    | No.2   | 12 - 9                | 2x4  | DRY    | No.2   |
| ALL WEBS EXCEPT       | 2x3  | DRY    | No.2   | ALL WEBS EXCEPT       | 2x3  | DRY    | No.2   |
| SPF                   |      |        |        | SPF                   |      |        |        |
| DRY: SEASONED LUMBER. |      |        |        | 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 | 3.00 |
| 3                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 4                           | TTWW-m | MT20   | 4.0 | 6.0 | 1.75 | 2.25 |
| 5                           | TMVW-w | MT20   | 2.0 | 4.0 |      |      |
| 6                           | TTWW-m | MT20   | 4.0 | 6.0 | 1.75 | 2.00 |
| 7                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 8                           | TMVW-t | MT20   | 4.0 | 6.0 | 1.50 | 2.75 |
| 9                           | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 10                          | BMVW-t | MT20   | 4.0 | 5.0 | 1.50 | 1.50 |
| 11                          | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 12                          | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| 13                          | BMVW-t | MT20   | 3.0 | 6.0 |      |      |
| 14                          | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| 15                          | BMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 16                          | BMVW-t | MT20   | 4.0 | 5.0 | 1.50 | 1.50 |
| 17                          | 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.

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

| BEARINGS |          |      |      | FACTORED       |      |      |        | MAXIMUM FACTORED |     |       |       | INPUT |     |       |       | REQRD |     |       |       |
|----------|----------|------|------|----------------|------|------|--------|------------------|-----|-------|-------|-------|-----|-------|-------|-------|-----|-------|-------|
| JT       | COMBINED | SNOW | LIVE | GROSS REACTION | DOWN | HORZ | UPLIFT | BRG              | BRG | IN-SX | IN-SX | BRG   | BRG | IN-SX | IN-SX | BRG   | BRG | IN-SX | IN-SX |
| 17       | 1775     | 0    | 1775 | 0              | 0    | 0    | 0      | 5-8              | 5-8 |       |       | 5-8   | 5-8 |       |       |       |     |       |       |
| 9        | 1670     | 0    | 1670 | 0              | 0    | 0    | 0      |                  |     |       |       |       |     |       |       |       |     |       |       |

| UNFACTORED REACTIONS |           |          |                     |    |           |          |                     |
|----------------------|-----------|----------|---------------------|----|-----------|----------|---------------------|
| JT                   | 1ST LCASE | MAX/MIN. | COMPONENT REACTIONS | JT | 1ST LCASE | MAX/MIN. | COMPONENT REACTIONS |
| 17                   | 1243      | 883 / 0  | 0 / 0               | 17 | 1243      | 883 / 0  | 0 / 0               |
| 9                    | 1172      | 820 / 0  | 0 / 0               | 9  | 1172      | 820 / 0  | 0 / 0               |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 17

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.86 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: (3) |           |               |          |
|---------|-----------|----------------------|----------------------|-----------------------|-----------|---------------|----------|
| MEMB.   | CHORDS    | MAX. FACTORED        | FACTORED             | MEMB.                 | CHORDS    | MAX. FACTORED | FACTORED |
| FR-TO   | 1-2       | 0 / 23               | -77.3 -77.3 0.10 (1) | FR-TO                 | 16-3      | -179 / 54     | 0.05 (1) |
| 2-3     | -2498 / 0 | -77.3 -77.3 0.55 (1) | 3.86                 | 3-15                  | -447 / 0  | 0.51 (1)      |          |
| 3-4     | -2131 / 0 | -77.3 -77.3 0.49 (1) | 4.19                 | 15-4                  | 0 / 345   | 0.08 (1)      |          |
| 4-5     | -2072 / 0 | -77.3 -77.3 0.31 (1) | 4.42                 | 4-13                  | 0 / 319   | 0.07 (1)      |          |
| 5-6     | -2072 / 0 | -77.3 -77.3 0.31 (1) | 4.42                 | 13-6                  | -485 / 0  | 0.49 (1)      |          |
| 6-7     | -2096 / 0 | -77.3 -77.3 0.45 (1) | 4.25                 | 13-6                  | 0 / 373   | 0.08 (1)      |          |
| 7-8     | -2357 / 0 | -77.3 -77.3 0.49 (1) | 4.02                 | 11-6                  | 0 / 293   | 0.07 (1)      |          |
| 17-2    | -1726 / 0 | 0.0 0.0 0.17 (1)     | 6.33                 | 11-7                  | -339 / 0  | 0.37 (1)      |          |
| 9-8     | -1623 / 0 | 0.0 0.0 0.17 (1)     | 6.49                 | 10-7                  | -256 / 28 | 0.08 (1)      |          |
|         |           |                      |                      | 2-16                  | 0 / 2277  | 0.51 (1)      |          |
|         |           |                      |                      | 10-8                  | 0 / 2163  | 0.49 (1)      |          |
| 17-16   | 0 / 0     | -17.5 -17.5 0.17 (3) | 10.00                |                       |           |               |          |
| 16-15   | 0 / 2257  | -17.5 -17.5 0.43 (1) | 10.00                |                       |           |               |          |
| 15-14   | 0 / 1887  | -17.5 -17.5 0.37 (1) | 10.00                |                       |           |               |          |
| 14-13   | 0 / 1887  | -17.5 -17.5 0.37 (1) | 10.00                |                       |           |               |          |
| 13-12   | 0 / 1855  | -17.5 -17.5 0.36 (1) | 10.00                |                       |           |               |          |
| 12-11   | 0 / 1855  | -17.5 -17.5 0.36 (1) | 10.00                |                       |           |               |          |
| 11-10   | 0 / 2130  | -17.5 -17.5 0.41 (1) | 10.00                |                       |           |               |          |
| 10-9    | 0 / 0     | -17.5 -17.5 0.16 (3) | 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

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 (1.17")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.13")  
ALLOWABLE DEFL.(TL)= L/360 (1.17")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.23")

CSI: TC=0.55 (2-3:1), BC=0.43 (15-16:1), WB=0.51 (2-16:1), SSI=0.21 (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) SHEAR SECTION  
(PSI) (PLI) (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.

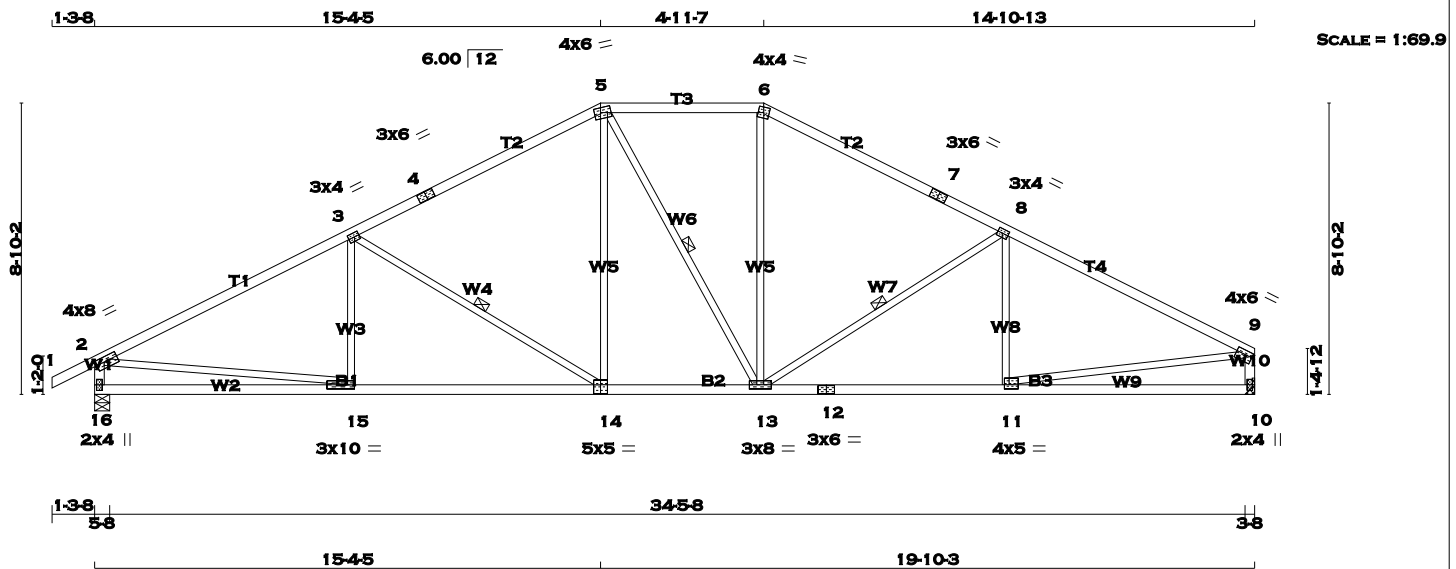
JSI GRIP= 0.89 (8) (INPUT = 0.90 )  
JSI METAL= 0.68 (16) (INPUT = 1.00 )



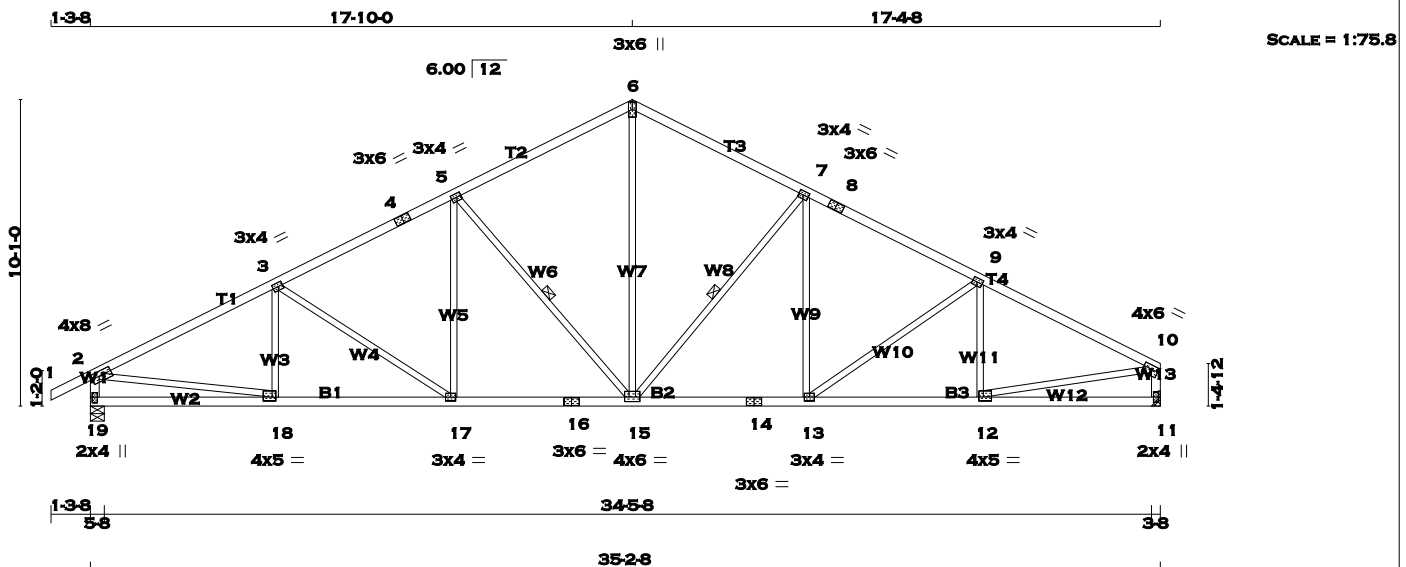
RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
17-5010  
BUILDING DIVISION

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.





|                                                                                                                                                                                                                              |  |  |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|
| TOTAL WEIGHT = 143 lb                                                                                                                                                                                                        |  |  |  |  |  |  |  |  |  |
| [M][F]                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |
| LUMBER                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |
| N. L. G. A. RULES                                                                                                                                                                                                            |  |  |  |  |  |  |  |  |  |
| CHORDS SIZE LUMBER DESCR.                                                                                                                                                                                                    |  |  |  |  |  |  |  |  |  |
| 1 - 4 2x4 DRY No.2 SPF                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |
| 4 - 5 2x4 DRY No.2 SPF                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |
| 5 - 6 2x4 DRY No.2 SPF                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |
| 6 - 7 2x4 DRY No.2 SPF                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |
| 7 - 9 2x4 DRY No.2 SPF                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |
| 16 - 2 2x4 DRY No.2 SPF                                                                                                                                                                                                      |  |  |  |  |  |  |  |  |  |
| 10 - 9 2x4 DRY No.2 SPF                                                                                                                                                                                                      |  |  |  |  |  |  |  |  |  |
| 16 - 14 2x4 DRY No.2 SPF                                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |
| 14 - 12 2x4 DRY No.2 SPF                                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |
| 12 - 10 2x4 DRY No.2 SPF                                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |
| ALL WEBS 2x3 DRY No.2 SPF                                                                                                                                                                                                    |  |  |  |  |  |  |  |  |  |
| EXCEPT                                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |
| DRY: SEASONED LUMBER.                                                                                                                                                                                                        |  |  |  |  |  |  |  |  |  |
| PLATES (table is in inches)                                                                                                                                                                                                  |  |  |  |  |  |  |  |  |  |
| JT TYPE PLATES W LEN Y X                                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |
| 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 TS-t MT20 3.0 6.0                                                                                                                                                                                                          |  |  |  |  |  |  |  |  |  |
| 5 TTWW-m MT20 4.0 6.0 1.75 2.25                                                                                                                                                                                              |  |  |  |  |  |  |  |  |  |
| 6 TTW-m MT20 4.0 4.0                                                                                                                                                                                                         |  |  |  |  |  |  |  |  |  |
| 7 TS-t MT20 3.0 6.0                                                                                                                                                                                                          |  |  |  |  |  |  |  |  |  |
| 8 TMWW-t MT20 3.0 4.0 1.50 1.75                                                                                                                                                                                              |  |  |  |  |  |  |  |  |  |
| 9 TMVW-t MT20 4.0 6.0 1.50 2.75                                                                                                                                                                                              |  |  |  |  |  |  |  |  |  |
| 10 BMV1+p MT20 2.0 4.0                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |
| 11 BMWW-t MT20 4.0 5.0 1.50 1.75                                                                                                                                                                                             |  |  |  |  |  |  |  |  |  |
| 12 BS-t MT20 3.0 6.0                                                                                                                                                                                                         |  |  |  |  |  |  |  |  |  |
| 13 BMWWW-t MT20 3.0 8.0                                                                                                                                                                                                      |  |  |  |  |  |  |  |  |  |
| 14 BSWW-l MT20 5.0 5.0 3.25 2.50                                                                                                                                                                                             |  |  |  |  |  |  |  |  |  |
| 15 BMWW-t MT20 3.0 10.0 1.50 2.50                                                                                                                                                                                            |  |  |  |  |  |  |  |  |  |
| 16 BMV1+p MT20 2.0 4.0                                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |
| A SIZE FOR SIZE SUBSTITUTION OF MITEK MI20 WITH TEE-LOK TL20 PLATES IS ALLOWED.                                                                                                                                              |  |  |  |  |  |  |  |  |  |
| DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER                                                                                                                                |  |  |  |  |  |  |  |  |  |
| BEARINGS                                                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |
| FACTORED MAXIMUM FACTORED INPUT REQD                                                                                                                                                                                         |  |  |  |  |  |  |  |  |  |
| GROSS REACTION GROSS REACTION BRG BRG                                                                                                                                                                                        |  |  |  |  |  |  |  |  |  |
| JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX                                                                                                                                                                                    |  |  |  |  |  |  |  |  |  |
| 16 1775 0 1775 0 0 5-8 5-8                                                                                                                                                                                                   |  |  |  |  |  |  |  |  |  |
| 10 1670 0 1670 0 0 HANGER BY OTHERS                                                                                                                                                                                          |  |  |  |  |  |  |  |  |  |
| MIN. SEAT SIZE: 3-8                                                                                                                                                                                                          |  |  |  |  |  |  |  |  |  |
| UNFACTORED REACTIONS                                                                                                                                                                                                         |  |  |  |  |  |  |  |  |  |
| 1ST LCASE MAX./MIN. COMPONENT REACTIONS                                                                                                                                                                                      |  |  |  |  |  |  |  |  |  |
| JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL                                                                                                                                                                               |  |  |  |  |  |  |  |  |  |
| 16 1243 883 / 0 0 / 0 0 / 0 0 / 0 360 / 0 0 / 0                                                                                                                                                                              |  |  |  |  |  |  |  |  |  |
| 10 1172 820 / 0 0 / 0 0 / 0 0 / 0 352 / 0 0 / 0                                                                                                                                                                              |  |  |  |  |  |  |  |  |  |
| BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 16                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |
| BRACING                                                                                                                                                                                                                      |  |  |  |  |  |  |  |  |  |
| TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.47 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 3-14, 5-13, 8-13. DBS = 20-0-0. CBF = 84 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: (3)                                                                                                                                                                                                        |  |  |  |  |  |  |  |  |  |
| CHORDS WEBS                                                                                                                                                                                                                  |  |  |  |  |  |  |  |  |  |
| MAX. FACTORED MAX. FACTORED                                                                                                                                                                                                  |  |  |  |  |  |  |  |  |  |
| MEMB. FORCE VERT. LOAD LC1 MAX MAX. MEMB. FORCE MAX                                                                                                                                                                          |  |  |  |  |  |  |  |  |  |
| (LBS) (PLF) CSI (LC) UNBRAC (LBS) CSI (LC)                                                                                                                                                                                   |  |  |  |  |  |  |  |  |  |
| FR-TO FROM TO LENGTH FR-TO                                                                                                                                                                                                   |  |  |  |  |  |  |  |  |  |
| 1-2 0 / 23 -77.3 -77.3 0.10 (1) 10.00 15-3 -97 / 103 0.04 (1)                                                                                                                                                                |  |  |  |  |  |  |  |  |  |
| 2-3 -2504 / 0 -77.3 -77.3 0.86 (1) 3.47 3-14 -676 / 0 0.38 (1)                                                                                                                                                               |  |  |  |  |  |  |  |  |  |
| 3-4 -1926 / 0 -77.3 -77.3 0.73 (1) 3.99 14-5 0 / 458 0.10 (1)                                                                                                                                                                |  |  |  |  |  |  |  |  |  |
| 4-5 -1926 / 0 -77.3 -77.3 0.73 (1) 3.99 5-13 -25 / 0 0.02 (1)                                                                                                                                                                |  |  |  |  |  |  |  |  |  |
| 5-6 -1686 / 0 -77.3 -77.3 0.28 (1) 4.84 13-6 0 / 438 0.10 (1)                                                                                                                                                                |  |  |  |  |  |  |  |  |  |
| 6-7 -1912 / 0 -77.3 -77.3 0.68 (1) 4.08 13-8 -574 / 0 0.32 (1)                                                                                                                                                               |  |  |  |  |  |  |  |  |  |
| 7-8 -1912 / 0 -77.3 -77.3 0.68 (1) 4.08 11-8 -163 / 79 0.07 (1)                                                                                                                                                              |  |  |  |  |  |  |  |  |  |
| 8-9 -2386 / 0 -77.3 -77.3 0.78 (1) 3.64 2-15 0 / 2281 0.51 (1)                                                                                                                                                               |  |  |  |  |  |  |  |  |  |
| 16-2 -1719 / 0 0.0 0.0 0.17 (1) 6.35 11-9 0 / 2184 0.49 (1)                                                                                                                                                                  |  |  |  |  |  |  |  |  |  |
| 10-9 -1615 / 0 0.0 0.0 0.17 (1) 6.51                                                                                                                                                                                         |  |  |  |  |  |  |  |  |  |
| 16-15 0 / 0 -17.5 -17.5 0.26 (3) 10.00                                                                                                                                                                                       |  |  |  |  |  |  |  |  |  |
| 15-14 0 / 2268 -17.5 -17.5 0.49 (1) 10.00                                                                                                                                                                                    |  |  |  |  |  |  |  |  |  |
| 14-13 0 / 1699 -17.5 -17.5 0.35 (1) 10.00                                                                                                                                                                                    |  |  |  |  |  |  |  |  |  |
| 13-12 0 / 2162 -17.5 -17.5 0.47 (1) 10.00                                                                                                                                                                                    |  |  |  |  |  |  |  |  |  |
| 12-11 0 / 2162 -17.5 -17.5 0.47 (1) 10.00                                                                                                                                                                                    |  |  |  |  |  |  |  |  |  |
| 11-10 0 / 0 -17.5 -17.5 0.25 (3) 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                                                                                                                                                                                                         |  |  |  |  |  |  |  |  |  |
| 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                                                                                                                                                                                                                 |  |  |  |  |  |  |  |  |  |
| - TPC 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 (1.17")                                                                                                                                                                                           |  |  |  |  |  |  |  |  |  |
| CALCULATED VERT. DEFL.(LL) = L/999 (0.13")                                                                                                                                                                                   |  |  |  |  |  |  |  |  |  |
| ALLOWABLE DEFL.(TL)= L/360 (1.17")                                                                                                                                                                                           |  |  |  |  |  |  |  |  |  |
| CALCULATED VERT. DEFL.(TL) = L/999 (0.26")                                                                                                                                                                                   |  |  |  |  |  |  |  |  |  |
| CSI: TC=0.86 (2-3:1), BC=0.49 (14-15:1), WB=0.51 (2-15:1), SSI=0.26 (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) SHEAR SECTION                                                                                                                                                                                                |  |  |  |  |  |  |  |  |  |
| (PSI) (PLI) (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= 0.90 (16) (INPUT = 0.90 )                                                                                                                                                                                          |  |  |  |  |  |  |  |  |  |
| JSI METAL= 0.65 (11) (INPUT = 1.00 )                                                                                                                                                                                         |  |  |  |  |  |  |  |  |  |
| RECEIVED TOWN OF MILTON MAR 29, 2017 17-5010 BUILDING DIVISION                                                                                                                                                               |  |  |  |  |  |  |  |  |  |
| 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.                       |  |  |  |  |  |  |  |  |  |
| KOTT                                                                                                                                                                                                                         |  |  |  |  |  |  |  |  |  |



| LUMBER          |      | N. L. G. A. RULES |      | LUMBER | DESCR. |
|-----------------|------|-------------------|------|--------|--------|
| CHORDS          | SIZE | CHORDS            | SIZE |        |        |
| 1 - 4           | 2x4  | DRY               | No.2 | SPF    | SPF    |
| 4 - 6           | 2x4  | DRY               | No.2 |        |        |
| 6 - 8           | 2x4  | DRY               | No.2 |        |        |
| 8 - 10          | 2x4  | DRY               | No.2 |        |        |
| 19 - 2          | 2x4  | DRY               | No.2 |        |        |
| 11 - 10         | 2x4  | DRY               | No.2 |        |        |
| 19 - 16         | 2x4  | DRY               | No.2 |        |        |
| 16 - 14         | 2x4  | DRY               | No.2 |        |        |
| 14 - 11         | 2x4  | DRY               | No.2 |        |        |
| ALL WEBS EXCEPT | 2x3  | DRY               | No.2 |        |        |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |          |        |     |     |      |      |
|-----------------------------|----------|--------|-----|-----|------|------|
| JT                          | TYPE     | PLATES | W   | LEN | Y    | X    |
| 2                           | TMVW-t   | MT20   | 4.0 | 8.0 | 1.75 | 3.00 |
| 3, 5, 7, 9                  |          |        |     |     |      |      |
| 3                           | TMVW-t   | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 4                           | TS-t     | MT20   | 3.0 | 6.0 |      |      |
| 6                           | TTW+p    | MT20   | 3.0 | 6.0 |      |      |
| 8                           | TS-t     | MT20   | 3.0 | 6.0 |      |      |
| 10                          | TMVW-t   | MT20   | 4.0 | 6.0 | 1.50 | 2.75 |
| 11                          | BMV1+p   | MT20   | 2.0 | 4.0 |      |      |
| 12                          | BMVW-t   | MT20   | 4.0 | 5.0 | 1.50 | 1.75 |
| 13                          | BMVW-t   | MT20   | 3.0 | 4.0 |      |      |
| 14                          | BS-t     | MT20   | 3.0 | 6.0 |      |      |
| 15                          | BMVWVW-t | MT20   | 4.0 | 6.0 | 1.75 | 3.00 |
| 16                          | BS-t     | MT20   | 3.0 | 6.0 |      |      |
| 17                          | BMVW-t   | MT20   | 3.0 | 4.0 |      |      |
| 18                          | BMVW-t   | MT20   | 4.0 | 5.0 | 1.50 | 1.50 |
| 19                          | BMV1+p   | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |

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

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

| FACTORED<br>GROSS REACTION |      |      | MAXIMUM FACTORED<br>GROSS REACTION |      |        | INPUT<br>BRG     | REQRD<br>BRG        |
|----------------------------|------|------|------------------------------------|------|--------|------------------|---------------------|
| JT                         | VERT | HORZ | DOWN                               | HORZ | UPLIFT | IN-SX            | IN-SX               |
| 19                         | 1775 | 0    | 1775                               | 0    | 0      | 5-8              | 5-8                 |
| 11                         | 1670 | 0    | 1670                               | 0    | 0      | HANGER BY OTHERS |                     |
|                            |      |      |                                    |      |        |                  | MIN. SEAT SIZE: 3-8 |

### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. | LIVE  | PERM. | LIVE  | WIND  | DEAD    | SOIL  |
|----|-----------|-----------|-------|-------|-------|-------|---------|-------|
| 19 | 1243      | 883 / 0   | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 360 / 0 | 0 / 0 |
| 11 | 1172      | 820 / 0   | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 352 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 19

### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.98 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-15, 7-15. DBS = 20-0-0 . CBF = 89 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: (3)

| C H O R D S |               |                  |          | W E B S  |               |          |           |
|-------------|---------------|------------------|----------|----------|---------------|----------|-----------|
| MEMB.       | MAX. FACTORED | FACTORED         |          | MEMB.    | MAX. FACTORED | FACTORED |           |
|             | FORCE (LBS)   | VERT. LOAD (PLF) | LC1 MAX  |          | FORCE (LBS)   | MAX      |           |
| FR-TO       |               | FROM TO          | CSI (LC) | UNBRAC   | FR-TO         |          |           |
| 1-2         | 0 / 23        | -77.3            | -77.3    | 0.10 (1) | 10.00         | 18-3     | -202 / 38 |
| 2-3         | -2477 / 0     | -77.3            | -77.3    | 0.47 (1) | 3.98          | 3-17     | -313 / 0  |
| 3-4         | -2205 / 0     | -77.3            | -77.3    | 0.38 (1) | 4.28          | 17-5     | 0 / 273   |
| 4-5         | -2205 / 0     | -77.3            | -77.3    | 0.38 (1) | 4.28          | 5-15     | -710 / 0  |
| 5-6         | -1706 / 0     | -77.3            | -77.3    | 0.37 (1) | 4.74          | 15-6     | 0 / 1146  |
| 6-7         | -1706 / 0     | -77.3            | -77.3    | 0.35 (1) | 4.76          | 15-7     | -650 / 0  |
| 7-8         | -2151 / 0     | -77.3            | -77.3    | 0.35 (1) | 4.34          | 13-7     | 0 / 224   |
| 8-9         | -2151 / 0     | -77.3            | -77.3    | 0.35 (1) | 4.34          | 13-9     | -222 / 0  |
| 9-10        | -2334 / 0     | -77.3            | -77.3    | 0.43 (1) | 4.12          | 12-9     | -275 / 15 |
| 19-2        | -1729 / 0     | 0.0              | 0.0      | 0.17 (1) | 6.33          | 2-18     | 0 / 2255  |
| 11-10       | -1625 / 0     | 0.0              | 0.0      | 0.17 (1) | 6.49          | 12-10    | 0 / 2139  |
| 19-18       | 0 / 0         | -17.5            | -17.5    | 0.14 (3) | 10.00         |          |           |
| 18-17       | 0 / 2233      | -17.5            | -17.5    | 0.42 (1) | 10.00         |          |           |
| 17-16       | 0 / 1972      | -17.5            | -17.5    | 0.39 (1) | 10.00         |          |           |
| 16-15       | 0 / 1972      | -17.5            | -17.5    | 0.39 (1) | 10.00         |          |           |
| 15-14       | 0 / 1923      | -17.5            | -17.5    | 0.38 (1) | 10.00         |          |           |
| 14-13       | 0 / 1923      | -17.5            | -17.5    | 0.38 (1) | 10.00         |          |           |
| 13-12       | 0 / 2104      | -17.5            | -17.5    | 0.40 (1) | 10.00         |          |           |
| 12-11       | 0 / 0         | -17.5            | -17.5    | 0.14 (3) | 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

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  
- TPC 1011

(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 (1.17")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.13")  
ALLOWABLE DEFL.(TL)= L/360 (1.17")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.24")

CSI: TC=0.47 (2-3:1), BC=0.42 (17-18:1) ,  
WB=0.51 (2-18:1) , SSI=0.19 (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) | SHEAR   | SECTION |
|-------|-----------|---------|---------|
|       | (PSI)     | (PLI)   | (PLI)   |
|       | MAX MIN   | MAX MIN | MAX MIN |
| MT20  | 618       | 354     | 1667    |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

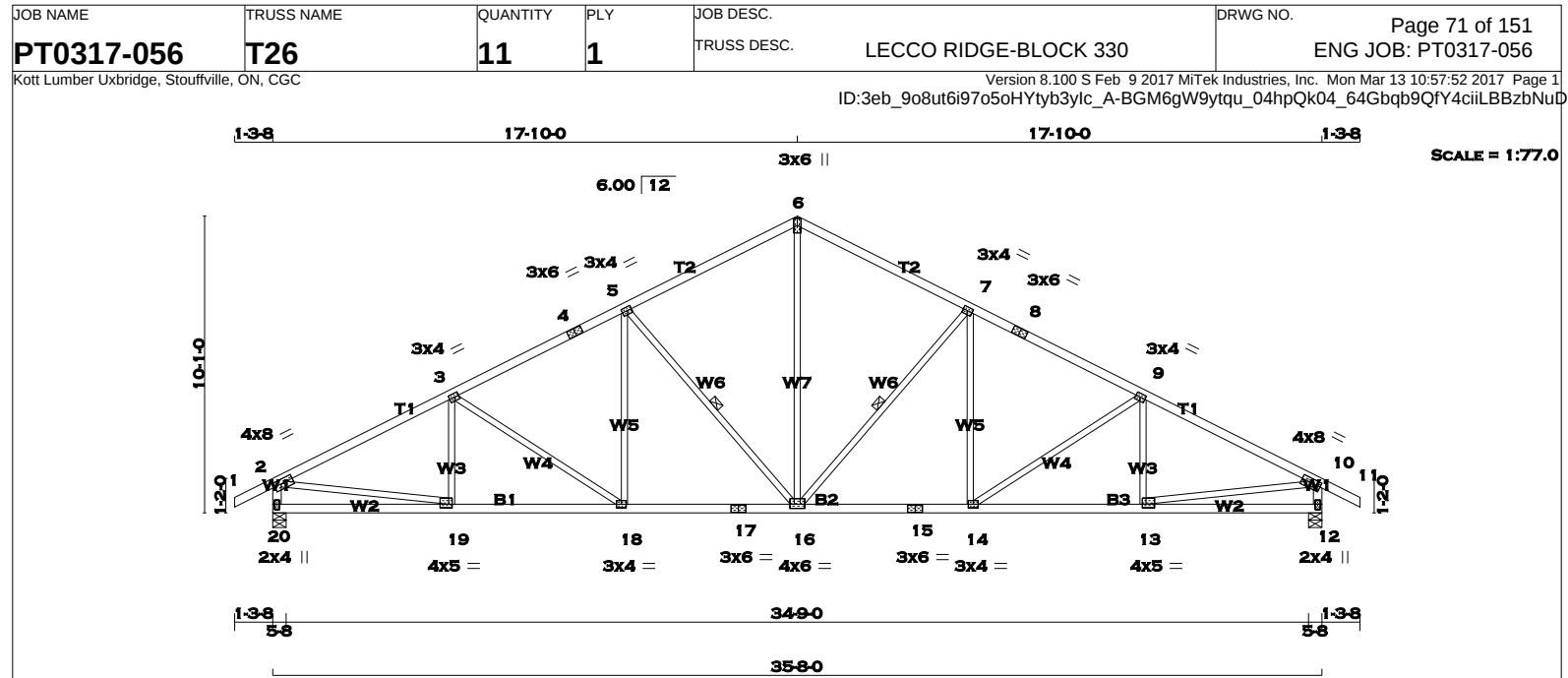
JSI GRIP= 0.90 (12) (INPUT = 0.90)  
JSI METAL= 0.67 (18) (INPUT = 1.00)



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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.





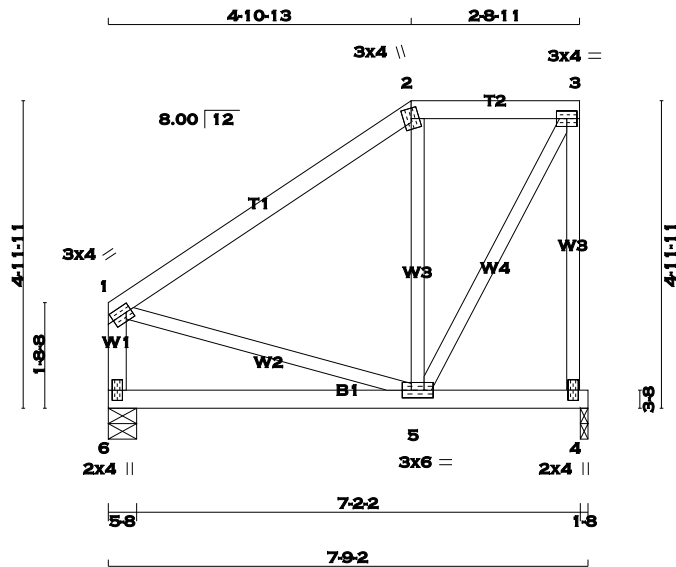
|                                                                                                                                                                                                                              |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|-------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--------|--|--|--|--|------------------------|--|--|--|--|
| TOTAL WEIGHT = 11 X 150 = 1652 LB                                                                                                                                                                                            |  |  |  |  |                                                                                                                         |  |  |  |  | [M][F] |  |  |  |  |                        |  |  |  |  |
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR. SPF                                                                                                                                                          |  |  |  |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b> |  |  |  |  |        |  |  |  |  | <b>DESIGN CRITERIA</b> |  |  |  |  |
| 1 - 4 2x4 DRY No.2 SPF                                                                                                                                                                                                       |  |  |  |  | FACTORED MAXIMUM FACTORED INPUT REQD                                                                                    |  |  |  |  |        |  |  |  |  | SPECIFIED LOADS:       |  |  |  |  |
| 4 - 6 2x4 DRY No.2 SPF                                                                                                                                                                                                       |  |  |  |  | GROSS REACTION GROSS REACTION BRG BRG                                                                                   |  |  |  |  |        |  |  |  |  | TOP CH. LL = 23.3 PSF  |  |  |  |  |
| 6 - 8 2x4 DRY No.2 SPF                                                                                                                                                                                                       |  |  |  |  | JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX                                                                               |  |  |  |  |        |  |  |  |  | DL = 3.0 PSF           |  |  |  |  |
| 8 - 11 2x4 DRY No.2 SPF                                                                                                                                                                                                      |  |  |  |  | 20 1796 0 1796 0 0 5-8 5-8                                                                                              |  |  |  |  |        |  |  |  |  | BOT CH. LL = 0.0 PSF   |  |  |  |  |
| 20 - 2 2x4 DRY No.2 SPF                                                                                                                                                                                                      |  |  |  |  | 12 1796 0 1796 0 0 5-8 5-8                                                                                              |  |  |  |  |        |  |  |  |  | DL = 7.0 PSF           |  |  |  |  |
| 12 - 10 2x4 DRY No.2 SPF                                                                                                                                                                                                     |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  | TOTAL LOAD = 33.3 PSF  |  |  |  |  |
| 20 - 17 2x4 DRY No.2 SPF                                                                                                                                                                                                     |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 17 - 15 2x4 DRY No.2 SPF                                                                                                                                                                                                     |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 15 - 12 2x4 DRY No.2 SPF                                                                                                                                                                                                     |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| ALL WEBS 2x3 DRY No.2 SPF                                                                                                                                                                                                    |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| EXCEPT                                                                                                                                                                                                                       |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| DRY: SEASONED LUMBER.                                                                                                                                                                                                        |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
|                                                                                                                                                                                                                              |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| <b>PLATES (table is in inches)</b>                                                                                                                                                                                           |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| JT TYPE PLATES W LEN Y X                                                                                                                                                                                                     |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 2 TMVW-t MT20 4.0 8.0 1.75 3.00                                                                                                                                                                                              |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 3, 5, 7, 9                                                                                                                                                                                                                   |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 4 TMWW-t MT20 3.0 4.0 1.50 1.75                                                                                                                                                                                              |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 4 TS-t MT20 3.0 6.0                                                                                                                                                                                                          |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 6 TTW+p MT20 3.0 6.0                                                                                                                                                                                                         |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 8 TS-t MT20 3.0 6.0                                                                                                                                                                                                          |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 10 TMVW-t MT20 4.0 8.0 1.75 3.00                                                                                                                                                                                             |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 12 BMV1+p MT20 2.0 4.0 2.25 1.00                                                                                                                                                                                             |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 13 BMWW-t MT20 4.0 5.0 1.50 1.50                                                                                                                                                                                             |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 14 BMWW-t MT20 3.0 4.0                                                                                                                                                                                                       |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 15 BS-t MT20 3.0 6.0                                                                                                                                                                                                         |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 16 BMWWW-t MT20 4.0 6.0 1.75 3.00                                                                                                                                                                                            |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 17 BS-t MT20 3.0 6.0                                                                                                                                                                                                         |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 18 BMWW-t MT20 3.0 4.0                                                                                                                                                                                                       |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 19 BMWW-t MT20 4.0 5.0 1.50 1.50                                                                                                                                                                                             |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 20 BMV1+p MT20 2.0 4.0 2.25 1.00                                                                                                                                                                                             |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| A SIZE FOR SIZE SUBSTITUTION OF MITEK M120 WITH TEE-LOK TL20 PLATES IS ALLOWED.                                                                                                                                              |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
|                                                                                                                                                                                                                              |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| <b>UNFACTORED REACTIONS</b>                                                                                                                                                                                                  |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 1ST LCASE MAX./MIN. COMPONENT REACTIONS                                                                                                                                                                                      |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL                                                                                                                                                                               |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 20 1258 894 / 0 0 / 0 0 / 0 0 / 0 365 / 0 0 / 0                                                                                                                                                                              |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 12 1258 894 / 0 0 / 0 0 / 0 0 / 0 365 / 0 0 / 0                                                                                                                                                                              |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 20, 12                                                                                                                                                                 |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| <b>BRACING</b>                                                                                                                                                                                                               |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.95 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 7-16, 5-16. DBS = 20-0-0 . CBF = 88 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                                                                                                           |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| <b>LOADING</b>                                                                                                                                                                                                               |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| TOTAL LOAD CASES: (3)                                                                                                                                                                                                        |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
|                                                                                                                                                                                                                              |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| CHORDS WEBS                                                                                                                                                                                                                  |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| MEMB. FORCE FACTORED VERT. LOAD LC1 MAX. FACTORED MEMB. FORCE MAX. FACTORED                                                                                                                                                  |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| (LBS) (PLF) CSI (LC) UNBRAC (LBS) CSI (LC)                                                                                                                                                                                   |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| FR-TO FROM TO LENGTH FR-TO                                                                                                                                                                                                   |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 1- 2 0 / 23 -77.3 -77.3 0.10 (1) 10.00 16- 6 0 / 1181 0.27 (1)                                                                                                                                                               |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 2- 3 -2515 / 0 -77.3 -77.3 0.47 (1) 3.95 16- 7 -708 / 0 0.40 (1)                                                                                                                                                             |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 3- 4 -2247 / 0 -77.3 -77.3 0.38 (1) 4.24 14- 7 0 / 270 0.06 (1)                                                                                                                                                              |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 4- 5 -2247 / 0 -77.3 -77.3 0.38 (1) 4.24 14- 9 -308 / 0 0.29 (1)                                                                                                                                                             |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 5- 6 -1751 / 0 -77.3 -77.3 0.37 (1) 4.68 13- 9 -207 / 37 0.06 (1)                                                                                                                                                            |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 6- 7 -1751 / 0 -77.3 -77.3 0.37 (1) 4.68 5-16 -708 / 0 0.40 (1)                                                                                                                                                              |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 7- 8 -2247 / 0 -77.3 -77.3 0.38 (1) 4.24 18- 5 0 / 270 0.06 (1)                                                                                                                                                              |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 8- 9 -2247 / 0 -77.3 -77.3 0.38 (1) 4.24 3-18 -308 / 0 0.29 (1)                                                                                                                                                              |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 9-10 -2515 / 0 -77.3 -77.3 0.47 (1) 3.95 19- 3 -207 / 37 0.06 (1)                                                                                                                                                            |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 10-11 0 / 23 -77.3 -77.3 0.10 (1) 10.00 2-19 0 / 2289 0.52 (1)                                                                                                                                                               |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 20- 2 -1750 / 0 0.0 0.0 0.18 (1) 6.30 13-10 0 / 2289 0.52 (1)                                                                                                                                                                |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| 12-10 -1750 / 0 0.0 0.0 0.18 (1) 6.30                                                                                                                                                                                        |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
|                                                                                                                                                                                                                              |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010                                                                                                                                   |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014<br>- CSA 086-09<br>- 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 (1.19")<br>CALCULATED VERT. DEFL.(LL) = L/ 999 (0.14")<br>ALLOWABLE DEFL.(TL)= L/360 (1.19")<br>CALCULATED VERT. DEFL.(TL) = L/ 999 (0.25")                                                       |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| CSI: TC=0.47 (9-10:1) , BC=0.42 (13-14:1) , WB=0.52 (10-13:1) , SSI=0.19 (9-10:1)                                                                                                                                            |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |
| DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10<br>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) SHEAR SECTION (PSI) (PLI) (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= 0.88 (16) (INPUT = 0.90 )<br>JSI METAL= 0.68 (13) (INPUT = 1.00 )                                                                                                                                                  |  |  |  |  |                                                                                                                         |  |  |  |  |        |  |  |  |  |                        |  |  |  |  |



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





SCALE = 1:37.3

TOTAL WEIGHT = 35 lb

[M][F]

| LUMBER            |        |      |        | DESCR. |
|-------------------|--------|------|--------|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER |        |
| 1 - 2             | 2x4    | DRY  | No.2   | SPF    |
| 2 - 3             | 2x4    | DRY  | No.2   | SPF    |
| 4 - 3             | 2x3    | DRY  | No.2   | SPF    |
| 6 - 1             | 2x4    | DRY  | No.2   | SPF    |
| 6 - 4             | 2x4    | DRY  | No.2   | SPF    |

ALL WEBS 2x3 DRY No.2 SPF  
EXCEPT

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| 1  | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.00 |
| 2  | TTW+m   | MT20   | 3.0 | 4.0 |      |      |
| 3  | TMVW-t  | MT20   | 3.0 | 4.0 |      |      |
| 4  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 5  | BMVWW-t | MT20   | 3.0 | 6.0 |      |      |
| 6  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

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       |      | MAXIMUM FACTORED |      | INPUT |       | REQRD |       |
|----------|------|----------------|------|------------------|------|-------|-------|-------|-------|
| JT       | VERT | GROSS REACTION | HORZ | DOWN             | HORZ | BRG   | IN-SX | BRG   | IN-SX |
| 4        | 362  | 0              | 362  | 0                | 0    | 1-8   | 1-8   | 1-8   | 1-8   |
| 6        | 362  | 0              | 362  | 0                | 0    | 5-8   | 5-8   | 5-8   | 5-8   |

**UNFACTORED REACTIONS**

| 1ST LCASE |          | MAX/MIN. COMPONENT REACTIONS |       |           |       |        |       |  |  |
|-----------|----------|------------------------------|-------|-----------|-------|--------|-------|--|--|
| JT        | COMBINED | SNOW                         | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |  |  |
| 4         | 254      | 178 / 0                      | 0 / 0 | 0 / 0     | 0 / 0 | 76 / 0 | 0 / 0 |  |  |
| 6         | 254      | 178 / 0                      | 0 / 0 | 0 / 0     | 0 / 0 | 76 / 0 | 0 / 0 |  |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 4, 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: (3)

| CHORDS |                           |                           |              | WEBS  |                           |              |          |
|--------|---------------------------|---------------------------|--------------|-------|---------------------------|--------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX LC1 (LC) |          |
| FR-TO  |                           | FROM TO                   |              | FR-TO |                           |              |          |
| 1-2    | -172 / 0                  | -77.3 -77.3               | 0.24 (1)     | 6.25  | 5-2                       | -200 / 0     | 0.07 (1) |
| 2-3    | -138 / 0                  | -77.3 -77.3               | 0.07 (1)     | 6.25  | 5-3                       | 0 / 283      | 0.06 (1) |
| 4-3    | -352 / 0                  | 0.0 0.0                   | 0.20 (1)     | 7.81  | 1-5                       | 0 / 148      | 0.03 (1) |
| 6-1    | -325 / 0                  | 0.0 0.0                   | 0.03 (1)     | 7.81  |                           |              |          |
| 6-5    | 0 / 0                     | -17.5 -17.5               | 0.09 (3)     | 10.00 |                           |              |          |
| 5-4    | 0 / 0                     | -17.5 -17.5               | 0.09 (3)     | 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

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 (0.25")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.25")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.24 (1-2:1), BC=0.09 (4-5:3), WB=0.07 (2-5:1), SSI=0.12 (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) SHEAR SECTION  
(PSI) (PLI) (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.

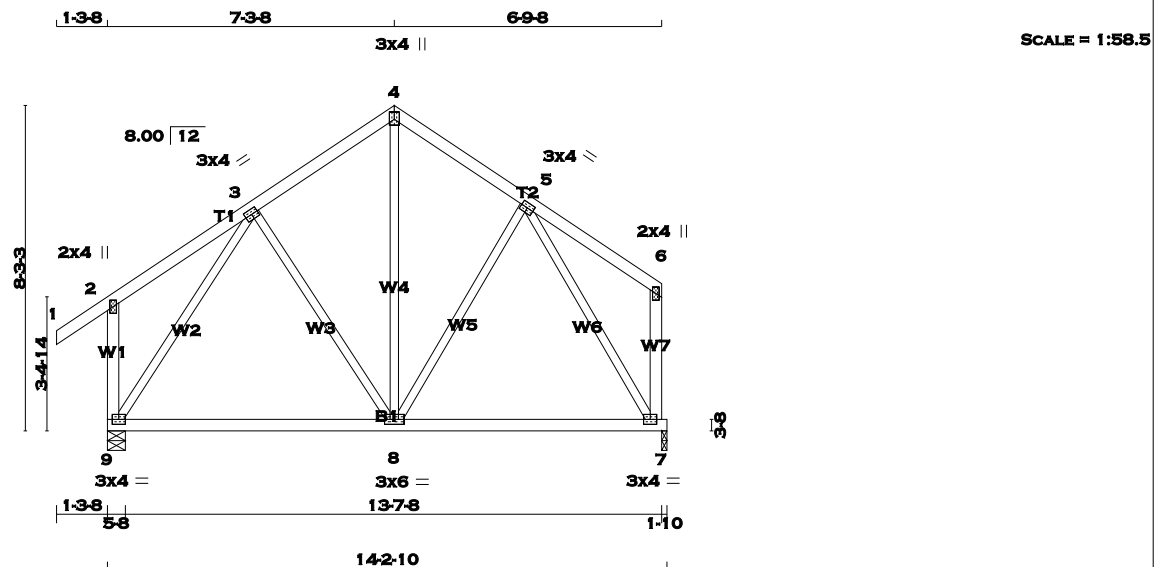
JSI GRIP= 0.60 (5) (INPUT = 0.90 )  
JSI METAL= 0.10 (1) (INPUT = 1.00 )



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TOTAL WEIGHT = 3 X 71 = 214 lb  
[M][F]

| LUMBER                       |        |      |        |  | DESCR. |
|------------------------------|--------|------|--------|--|--------|
| N. L. G. A. RULES            | CHORDS | SIZE | LUMBER |  |        |
| 1 - 4                        | 2x4    | DRY  | No.2   |  | SPF    |
| 4 - 6                        | 2x4    | DRY  | No.2   |  | SPF    |
| 9 - 2                        | 2x4    | DRY  | No.2   |  | SPF    |
| 7 - 6                        | 2x4    | DRY  | No.2   |  | SPF    |
| 9 - 7                        | 2x4    | DRY  | No.2   |  | SPF    |
| ALL WEBS 2x3 DRY No.2 EXCEPT |        |      |        |  | SPF    |
| DRY: SEASONED LUMBER.        |        |      |        |  |        |

| PLATES (table is in inches) |         |        |     |     |      |      |
|-----------------------------|---------|--------|-----|-----|------|------|
| JT                          | TYPE    | PLATES | W   | LEN | Y    | X    |
| 2                           | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 3                           | TMWW-t  | MT20   | 3.0 | 4.0 |      |      |
| 4                           | TTW+p   | MT20   | 3.0 | 4.0 | 2.25 | 1.50 |
| 5                           | TMWW-t  | MT20   | 3.0 | 4.0 |      |      |
| 6                           | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 7                           | BMVW1-t | MT20   | 3.0 | 4.0 |      |      |
| 8                           | BMWWV-t | MT20   | 3.0 | 6.0 |      |      |
| 9                           | BMVW1-t | MT20   | 3.0 | 4.0 |      |      |

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

|    |  | FACTORED       |      | MAXIMUM FACTORED |      | INPUT  |       | REQRD |  |
|----|--|----------------|------|------------------|------|--------|-------|-------|--|
|    |  | GROSS REACTION |      | GROSS REACTION   |      | BRG    |       | BRG   |  |
| JT |  | VERT           | HORZ | DOWN             | HORZ | UPLIFT | IN-SX | IN-SX |  |
| 9  |  | 774            | 0    | 774              | 0    | 0      | 5-8   | 5-8   |  |
| 7  |  | 668            | 0    | 668              | 0    | 0      | 1-10  | 1-10  |  |

#### UNFACTORED REACTIONS

|    |  | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |           |       |         |       |  |
|----|--|-----------|---------|-------------------------------|-----------|-------|---------|-------|--|
| JT |  | COMBINED  | SNOW    | LIVE                          | PERM.LIVE | WIND  | DEAD    | SOIL  |  |
| 9  |  | 541       | 392 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 149 / 0 | 0 / 0 |  |
| 7  |  | 469       | 328 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 141 / 0 | 0 / 0 |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 9, 7

#### 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: (3)

|       |  | CHORDS        |                  |                |               | W E B S       |             |          |  |
|-------|--|---------------|------------------|----------------|---------------|---------------|-------------|----------|--|
|       |  | MAX. FACTORED | FACTORED         |                |               | MAX. FACTORED | FACTORED    |          |  |
| MEMB. |  | FORCE (LBS)   | VERT. LOAD (PLF) | LC1 MAX (LC)   | UNBRAC LENGTH | MEMB.         | FORCE (LBS) | MAX (LC) |  |
| FR-TO |  |               | FROM TO          |                |               | FR-TO         |             |          |  |
| 1-2   |  | 0 / 29        | -77.3            | -77.3 0.10 (1) | 10.00         | 3-8           | -53 / 29    | 0.04 (1) |  |
| 2-3   |  | 0 / 18        | -77.3            | -77.3 0.17 (1) | 10.00         | 8-4           | 0 / 205     | 0.05 (1) |  |
| 3-4   |  | -390 / 0      | -77.3            | -77.3 0.13 (1) | 6.25          | 8-5           | -9 / 40     | 0.01 (3) |  |
| 4-5   |  | -388 / 0      | -77.3            | -77.3 0.11 (1) | 6.25          | 9-3           | -611 / 0    | 0.47 (1) |  |
| 5-6   |  | 0 / 17        | -77.3            | -77.3 0.14 (1) | 10.00         | 5-7           | -608 / 0    | 0.47 (1) |  |
| 9-2   |  | -215 / 0      | 0.0              | 0.0 0.04 (1)   | 7.81          |               |             |          |  |
| 7-6   |  | -102 / 0      | 0.0              | 0.0 0.02 (1)   | 7.81          |               |             |          |  |
| 9-8   |  | 0 / 338       | -17.5            | -17.5 0.27 (3) | 10.00         |               |             |          |  |
| 8-7   |  | 0 / 313       | -17.5            | -17.5 0.27 (3) | 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 (0.47")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.47")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.06")

CSI: TC=0.17 (2-3:1) , BC=0.27 (8-9:3) , WB=0.47 (3-9:1) , SSI=0.11 (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) SHEAR SECTION  
(PSI) (PLI) (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.

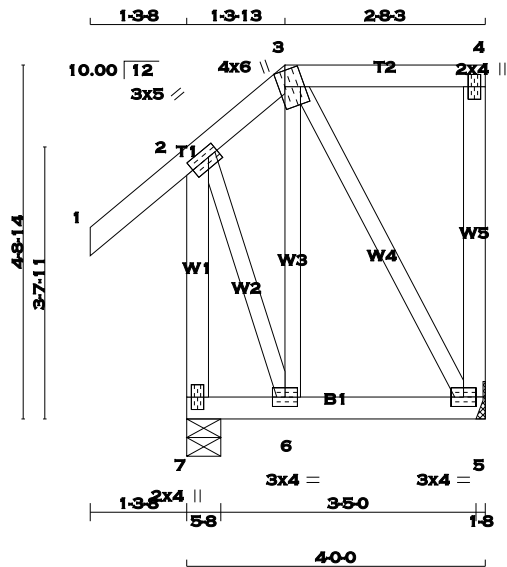
JSI GRIP= 0.85 (3) (INPUT = 0.90 )  
JSI METAL= 0.21 (3) (INPUT = 1.00 )



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SCALE = 1:30.9

TOTAL WEIGHT = 2 X 30 = 60 lb [M]

| LUMBER                |        |      |        |  | DESCR. |
|-----------------------|--------|------|--------|--|--------|
| N. L. G. A. RULES     | CHORDS | SIZE | LUMBER |  |        |
| 1 - 3                 | 2x4    | DRY  | No.2   |  | SPF    |
| 3 - 4                 | 2x4    | DRY  | No.2   |  | SPF    |
| 5 - 4                 | 2x4    | DRY  | No.2   |  | SPF    |
| 7 - 2                 | 2x4    | DRY  | No.2   |  | SPF    |
| 7 - 5                 | 2x4    | DRY  | No.2   |  | SPF    |
| ALL WEBS 2x3 DRY No.2 |        |      |        |  | SPF    |
| EXCEPT                |        |      |        |  |        |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| 2  | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 | 1.75 |
| 3  | TTWW+m  | MT20   | 4.0 | 6.0 | Edge | 1.00 |
| 4  | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 5  | BMVW1-t | MT20   | 3.0 | 4.0 |      |      |
| 6  | BMVW-t  | MT20   | 3.0 | 4.0 |      |      |
| 7  | 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.

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

| FACTORED       |      |      | MAXIMUM FACTORED |      |        | INPUT               | REQRD |
|----------------|------|------|------------------|------|--------|---------------------|-------|
| GROSS REACTION |      |      | GROSS REACTION   |      |        | BRG                 | BRG   |
| JT             | VERT | HORZ | DOWN             | HORZ | UPLIFT | IN-SX               | IN-SX |
| 5              | 171  | 0    | 171              | 0    | 0      | HANGER BY OTHERS    |       |
| 7              | 315  | 0    | 315              | 0    | 0      | MIN. SEAT SIZE: 1-8 |       |
|                |      |      |                  |      |        | 5-8                 |       |

**UNFACTORED REACTIONS**

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |        |       |  |
|-----------|----------|-------------------------------|-------|-----------|-------|--------|-------|--|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |  |
| 5         | 121      | 82 / 0                        | 0 / 0 | 0 / 0     | 0 / 0 | 39 / 0 | 0 / 0 |  |
| 7         | 219      | 169 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 50 / 0 | 0 / 0 |  |

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

**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: (3)

| CHORDS |                           |                           |                        | WEBS  |                           |                             |          |
|--------|---------------------------|---------------------------|------------------------|-------|---------------------------|-----------------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 MAX. CSI (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED MAX. CSI (LC) |          |
| FR-TO  |                           | FROM TO                   |                        | FR-TO |                           |                             |          |
| 1-2    | 0 / 34                    | -77.3 -77.3               | 0.11 (1)               | 10.00 | 6-3                       | -27 / 21                    | 0.01 (1) |
| 2-3    | -75 / 0                   | -77.3 -77.3               | 0.10 (1)               | 6.25  | 3-5                       | -55 / 0                     | 0.02 (1) |
| 3-4    | 0 / 0                     | -77.3 -77.3               | 0.09 (1)               | 10.00 | 2-6                       | 0 / 74                      | 0.02 (1) |
| 5-4    | -104 / 0                  | 0.0 0.0                   | 0.04 (1)               | 7.81  |                           |                             |          |
| 7-2    | -307 / 0                  | 0.0 0.0                   | 0.07 (1)               | 7.81  |                           |                             |          |
| 7-6    | 0 / 0                     | -17.5 -17.5               | 0.02 (3)               | 10.00 |                           |                             |          |
| 6-5    | 0 / 28                    | -17.5 -17.5               | 0.03 (3)               | 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**

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

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=0.11 (1-2:1) , BC=0.03 (5-6:3) , WB=0.02 (3-5:1) , SSI=0.08 (3-4:1)

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

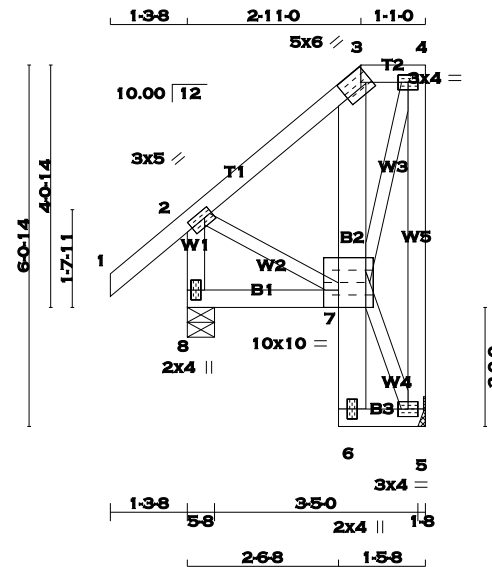
JSI GRIP= 0.27 (2) (INPUT = 0.90 )  
JSI METAL= 0.06 (2) (INPUT = 1.00 )



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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.





SCALE = 1:38.7

TOTAL WEIGHT = 2 X 37 = 73 lb

| LUMBER            |        |      |        |        |
|-------------------|--------|------|--------|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
| 1 - 3             | 2x4    | DRY  | No.2   | SPF    |
| 3 - 4             | 2x4    | DRY  | No.2   | SPF    |
| 5 - 4             | 2x4    | DRY  | No.2   | SPF    |
| 8 - 2             | 2x4    | DRY  | No.2   | SPF    |
| 8 - 7             | 2x4    | DRY  | No.2   | SPF    |
| 6 - 3             | 2x6    | DRY  | No.2   | SPF    |
| 6 - 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    |
|----|----------|--------|------|------|------|------|
| 2  | TMVW-t   | MT20   | 3.0  | 5.0  | 1.50 | 1.75 |
| 3  | TTV-h    | MT20   | 5.0  | 6.0  | 2.50 | 1.75 |
| 4  | TMVW-t   | MT20   | 3.0  | 4.0  |      |      |
| 5  | BMVW1-t  | MT20   | 3.0  | 4.0  |      |      |
| 6  | BMV+p    | MT20   | 2.0  | 4.0  |      |      |
| 7  | BVMWWW-l | MT20   | 10.0 | 10.0 | Edge | 3.00 |
| 8  | 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.

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

| BEARINGS |      | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |        | INPUT |                  | REQRD |       |
|----------|------|-------------------------|------|---------------------------------|--------|-------|------------------|-------|-------|
| JT       | VERT | HORZ                    | DOWN | HORZ                            | UPLIFT | BRG   | IN-SX            | BRG   | IN-SX |
| 5        | 190  | 0                       | 190  | 0                               | 0      |       | HANGER BY OTHERS |       |       |
| 8        | 297  | 0                       | 297  | 0                               | 0      | 5-8   | 5-8              |       |       |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE | COMBINED | SNOW  | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |
|----|-----------|----------|-------|-------|-----------|-------|--------|-------|
| 5  | 133       | 93 / 0   | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 40 / 0 | 0 / 0 |
| 8  | 206       | 158 / 0  | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 48 / 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 = 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: (3)

| CHORDS |                           |                  |                           | WEBS  |                           |                           |          |
|--------|---------------------------|------------------|---------------------------|-------|---------------------------|---------------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC) | MEMB.    |
| FR-TO  |                           |                  |                           | FR-TO |                           |                           |          |
| 1-2    | 0 / 34                    | -77.3            | -77.3 0.11 (1)            | 10.00 | 7-5                       | -18 / 0                   | 0.00 (1) |
| 2-3    | -52 / 0                   | -77.3            | -77.3 0.11 (1)            | 6.25  | 7-4                       | 0 / 129                   | 0.03 (1) |
| 3-4    | -40 / 0                   | -77.3            | -77.3 0.02 (1)            | 6.25  | 2-7                       | 0 / 44                    | 0.01 (1) |
| 5-4    | -163 / 0                  | 0.0              | 0.0 0.12 (1)              | 7.81  |                           |                           |          |
| 8-2    | -273 / 0                  | 0.0              | 0.0 0.03 (1)              | 7.81  |                           |                           |          |
| 8-7    | 0 / 0                     | -17.5            | -17.5 0.04 (3)            | 10.00 |                           |                           |          |
| 6-7    | 0 / 12                    | 0.0              | 0.0 0.01 (1)              | 10.00 |                           |                           |          |
| 7-3    | -122 / 0                  | 0.0              | 0.0 0.01 (1)              | 7.81  |                           |                           |          |
| 6-5    | 0 / 10                    | -17.5            | -17.5 0.01 (3)            | 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**

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 (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=0.12 (4-5:1), BC=0.04 (7-8:3), WB=0.03 (4-7:1), SSI=0.07 (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

AUTOSOLVE RIGHT HEEL ONLY

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

**NAIL VALUES**  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

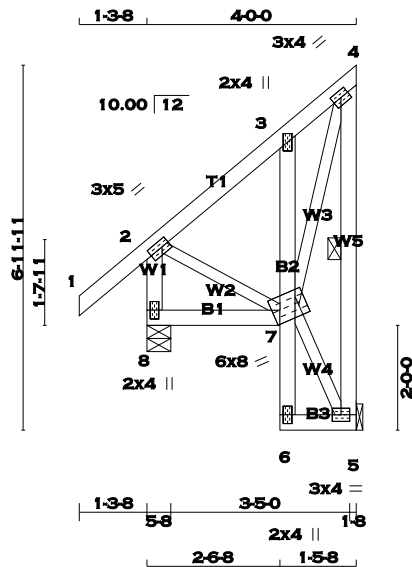
JSI GRIP= 0.38 (4) (INPUT = 0.90 )  
JSI METAL= 0.06 (2) (INPUT = 1.00 )



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SCALE = 1:44.0

TOTAL WEIGHT = 3 X 35 = 104 lb [M]

| LUMBER                |  |      |        |      |        |
|-----------------------|--|------|--------|------|--------|
| N. L. G. A. RULES     |  |      |        |      |        |
| CHORDS                |  | SIZE | LUMBER |      | DESCR. |
| 8 - 2                 |  | 2x4  | DRY    | No.2 | SPF    |
| 1 - 4                 |  | 2x4  | DRY    | No.2 | SPF    |
| 5 - 4                 |  | 2x4  | DRY    | No.2 | SPF    |
| 8 - 7                 |  | 2x4  | DRY    | No.2 | SPF    |
| 6 - 3                 |  | 2x4  | DRY    | No.2 | SPF    |
| 6 - 5                 |  | 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                           | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 | 1.75 |
| 3                           | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 4                           | TMVW-t  | MT20   | 3.0 | 4.0 |      |      |
| 5                           | BMVW1-t | MT20   | 3.0 | 4.0 |      |      |
| 6                           | BMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 7                           | BVMWW-w | MT20   | 6.0 | 8.0 | 3.00 | 1.75 |
| 8                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

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 |          | MAXIMUM FACTORED |          | INPUT |      | REQRD |      |
|----------|------|----------|----------|------------------|----------|-------|------|-------|------|
| JT       | VERT | GROSS    | REACTION | GROSS            | REACTION | BRG   | DOWN | BRG   | DOWN |
| 8        | 297  | 0        | 297      | 0                | 0        | 5-8   | 5-8  | 5-8   | 5-8  |
| 5        | 190  | 0        | 190      | 0                | 0        | 1-8   | 1-8  | 1-8   | 1-8  |

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 5

| UNFACTORED REACTIONS |          |         |       |           |       |        |       |
|----------------------|----------|---------|-------|-----------|-------|--------|-------|
| JT                   | COMBINED | SNOW    | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |
| 8                    | 206      | 158 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 48 / 0 | 0 / 0 |
| 5                    | 133      | 93 / 0  | 0 / 0 | 0 / 0     | 0 / 0 | 40 / 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 = 6.25 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 4-5. 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: (3) |               |          |            |
|---------|---------------|----------|----------------|-----------------------|---------------|----------|------------|
| CHORDS  |               |          |                | WEBS                  |               |          |            |
| MEMB.   | MAX. FACTORED | FACTORED | VERT. LOAD     | MEMB.                 | MAX. FACTORED | FACTORED | VERT. LOAD |
| FR-TO   | FORCE (LBS)   | (PLF)    | LC1 MAX        | FR-TO                 | FORCE (LBS)   | (PLF)    | LC1 MAX    |
| 8-2     | -273 / 0      | 0.0      | 0.0 0.03 (1)   | 2-7                   | 0 / 68        | 0.02 (1) | 10.00      |
| 1-2     | 0 / 34        | -77.3    | -77.3 0.11 (1) | 7-5                   | -9 / 0        | 0.00 (1) | 10.00      |
| 2-3     | -70 / 0       | -77.3    | -77.3 0.06 (1) | 7-4                   | 0 / 197       | 0.04 (1) | 10.00      |
| 3-4     | -88 / 0       | -77.3    | -77.3 0.05 (1) |                       |               |          |            |
| 5-4     | -171 / 0      | 0.0      | 0.0 0.04 (1)   |                       |               |          |            |
| 8-7     | 0 / 0         | -17.5    | -17.5 0.04 (3) |                       |               |          |            |
| 6-7     | 0 / 13        | 0.0      | 0.0 0.01 (1)   |                       |               |          |            |
| 7-3     | -192 / 0      | 0.0      | 0.0 0.02 (1)   |                       |               |          |            |
| 6-5     | 0 / 5         | -17.5    | -17.5 0.01 (3) |                       |               |          |            |

#### 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 (0.19")  
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=0.11 (1-2:1) , BC=0.04 (7-8:3) , WB=0.04 (4-7:1) , SSI=0.07 (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) SHEAR SECTION  
(PSI) (PLI) (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.

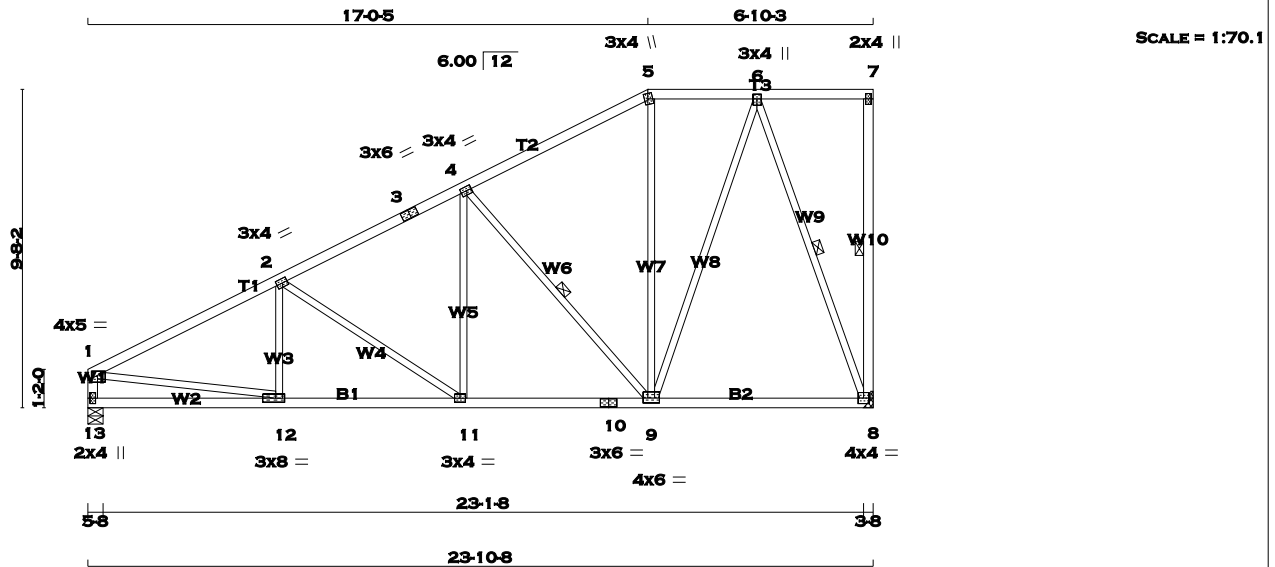
JSI GRIP= 0.52 (4) (INPUT = 0.90 )  
JSI METAL= 0.06 (2) (INPUT = 1.00 )



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





TOTAL WEIGHT = 116 lb  
[M][F]

| LUMBER                |      | N. L. G. A. RULES |      | LUMBER | DESCR. |
|-----------------------|------|-------------------|------|--------|--------|
| CHORDS                | SIZE |                   |      |        |        |
| 1 - 3                 | 2x4  | DRY               | No.2 | SPF    | SPF    |
| 3 - 5                 | 2x4  | DRY               | No.2 |        |        |
| 5 - 7                 | 2x4  | DRY               | No.2 |        |        |
| 8 - 7                 | 2x4  | DRY               | No.2 |        |        |
| 13- 1                 | 2x4  | DRY               | No.2 |        |        |
| 13- 10                | 2x4  | DRY               | No.2 |        |        |
| 10- 8                 | 2x4  | DRY               | No.2 |        |        |
| ALL WEBS<br>EXCEPT    | 2x3  | DRY               | No.2 | SPF    | SPF    |
| DRY: SEASONED LUMBER. |      |                   |      |        |        |

| PLATES (table is in inches)                                                      |         |        |     |     |      |      |
|----------------------------------------------------------------------------------|---------|--------|-----|-----|------|------|
| JT                                                                               | TYPE    | PLATES | W   | LEN | Y    | X    |
| 1                                                                                | TMVW-p  | MT20   | 4.0 | 5.0 | 1.50 | 2.25 |
| 2                                                                                | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 3                                                                                | TS-t    | MT20   | 3.0 | 6.0 |      |      |
| 4                                                                                | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 5                                                                                | TTW+m   | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 6                                                                                | TMVW+t  | MT20   | 3.0 | 4.0 | 1.75 | 1.50 |
| 7                                                                                | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 8                                                                                | BMVW1-t | MT20   | 4.0 | 4.0 |      |      |
| 9                                                                                | BMVWV-t | MT20   | 4.0 | 6.0 | 1.75 | 3.00 |
| 10                                                                               | BS-t    | MT20   | 3.0 | 6.0 |      |      |
| 11                                                                               | BMVW-t  | MT20   | 3.0 | 4.0 |      |      |
| 12                                                                               | BMVW-t  | MT20   | 3.0 | 8.0 | 1.50 | 3.25 |
| 13                                                                               | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 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   |       | REQRD |       |
| JT                                                                                            |          | VERT                    | HORZ  | DOWN                            | HORZ  | BRG     | IN-SX | BRG   | IN-SX |
| 8                                                                                             | 1132     | 0                       |       | 1132                            | 0     | 0       |       |       |       |
| 13                                                                                            | 1132     | 0                       |       | 1132                            | 0     | 0       |       |       |       |
| UNFACTORED REACTIONS                                                                          |          |                         |       |                                 |       |         |       |       |       |
| JT                                                                                            | COMBINED | SNOW                    | LIVE  | PERM.LIVE                       | WIND  | DEAD    | SOIL  |       |       |
| 8                                                                                             | 795      | 556 / 0                 | 0 / 0 | 0 / 0                           | 0 / 0 | 239 / 0 | 0 / 0 |       |       |
| 13                                                                                            | 795      | 556 / 0                 | 0 / 0 | 0 / 0                           | 0 / 0 | 239 / 0 | 0 / 0 |       |       |

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.94 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 7-8, 4-9. DBS = 20-0-0 . CBF = 91 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 6-8. DBS = 14-0-0 . CBF = 91 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: (3) |                           |                   |       |                           |
|-------------|---------------------------|---------------------------|--------------|-------------------|-----------------------|---------------------------|-------------------|-------|---------------------------|
| C H O R D S |                           |                           |              |                   | W E B S               |                           |                   |       |                           |
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 (LC) | MAX UNBRAC LENGTH | MEMB.                 | MAX. FACTORED FORCE (LBS) | MAX UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) |
| FR-TO       |                           | FROM TO                   |              |                   | FR-TO                 |                           |                   | FR-TO |                           |
| 1-2         | -1546 / 0                 | -77.3 -77.3               | 0.35 (1)     | 4.94              | 12-2                  | -96 / 67                  | 0.02 (1)          |       |                           |
| 2-3         | -1194 / 0                 | -77.3 -77.3               | 0.28 (1)     | 5.54              | 2-11                  | -398 / 0                  | 0.34 (1)          |       |                           |
| 3-4         | -1194 / 0                 | -77.3 -77.3               | 0.28 (1)     | 5.54              | 11-4                  | 0 / 311                   | 0.07 (1)          |       |                           |
| 4-5         | -680 / 0                  | -77.3 -77.3               | 0.28 (1)     | 6.25              | 4-9                   | -727 / 0                  | 0.38 (1)          |       |                           |
| 5-6         | -591 / 0                  | -77.3 -77.3               | 0.12 (1)     | 6.25              | 9-5                   | 0 / 61                    | 0.02 (3)          |       |                           |
| 6-7         | 0 / 0                     | -77.3 -77.3               | 0.15 (1)     | 10.00             | 9-6                   | 0 / 689                   | 0.15 (1)          |       |                           |
| 8-7         | -106 / 0                  | 0.0 0.0                   | 0.05 (1)     | 6.25              | 6-8                   | -1046 / 0                 | 0.75 (1)          |       |                           |
| 13-1        | -1089 / 0                 | 0.0 0.0                   | 0.11 (1)     | 7.57              | 1-12                  | 0 / 1414                  | 0.32 (1)          |       |                           |
| 13-12       | 0 / 0                     | -17.5 -17.5               | 0.14 (3)     | 10.00             |                       |                           |                   |       |                           |
| 12-11       | 0 / 1399                  | -17.5 -17.5               | 0.29 (1)     | 10.00             |                       |                           |                   |       |                           |
| 11-10       | 0 / 1068                  | -17.5 -17.5               | 0.27 (1)     | 10.00             |                       |                           |                   |       |                           |
| 10-9        | 0 / 1068                  | -17.5 -17.5               | 0.27 (1)     | 10.00             |                       |                           |                   |       |                           |
| 9-8         | 0 / 368                   | -17.5 -17.5               | 0.21 (3)     | 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**

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 (0.80")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (0.80")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.10")

CSI: TC=0.35 (1-2:1), BC=0.29 (11-12:1), WB=0.75 (6-8:1), SSI=0.19 (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) SHEAR SECTION (PSI) (PLI) (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= 0.89 (12) (INPUT = 0.90 )  
JSI METAL= 0.39 (1) (INPUT = 1.00 )



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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.





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

BEARINGS

|    | FACTORED       |      | MAXIMUM FACTORED |      | INPUT  | REQ'D               |       |  |  |
|----|----------------|------|------------------|------|--------|---------------------|-------|--|--|
|    | GROSS REACTION |      | GROSS REACTION   |      |        | BRG                 |       |  |  |
|    | VERT           | HORZ | DOWN             | HORZ | UPLIFT | IN-SX               | IN-SX |  |  |
| JT |                |      |                  |      |        |                     |       |  |  |
| 15 | 1237           | 0    | 1237             | 0    | 0      | 5-8                 | 5-8   |  |  |
| 9  | 1132           | 0    | 1132             | 0    | 0      | HANGER BY OTHERS    |       |  |  |
|    |                |      |                  |      |        | MIN. SEAT SIZE: 3-8 |       |  |  |

UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS |       |           |       |         | DEAD  | SOIL |
|----|-----------|-------------------------------|-------|-----------|-------|---------|-------|------|
|    | COMBINED  | SNOW                          | LIVE  | PERM.LIVE | WIND  |         |       |      |
| 15 | 866       | 619 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 247 / 0 | 0 / 0 |      |
| 9  | 795       | 556 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 239 / 0 | 0 / 0 |      |

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.80 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 5-11. DBS = 16-0-0 . CBF = 87 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 6-10. DBS = 14-0-0 . CBF = 82 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-10. DBS = 20-0-0 . CBF = 7 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 8-9. DBS = 12-0-0 . CBF = 81 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: (3)

## 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 (0.80")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")  
ALLOWABLE DEFL.(TL)= L/360 (0.80")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.12")

CSI: TC=0.54 (8-9:1) , BC=0.31 (13-14:1) ,  
WB=0.62 (3-13:1) , SSI=0.21 (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) |     | SHEAR |     | SECTION |      |
|             | (PSI)     |     | (PLI) |     | (PLI)   |      |
|             | MAX       | MIN | MAX   | MIN | MAX     | MIN  |
| MT20        | 618       | 354 | 1667  | 822 | 2284    | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

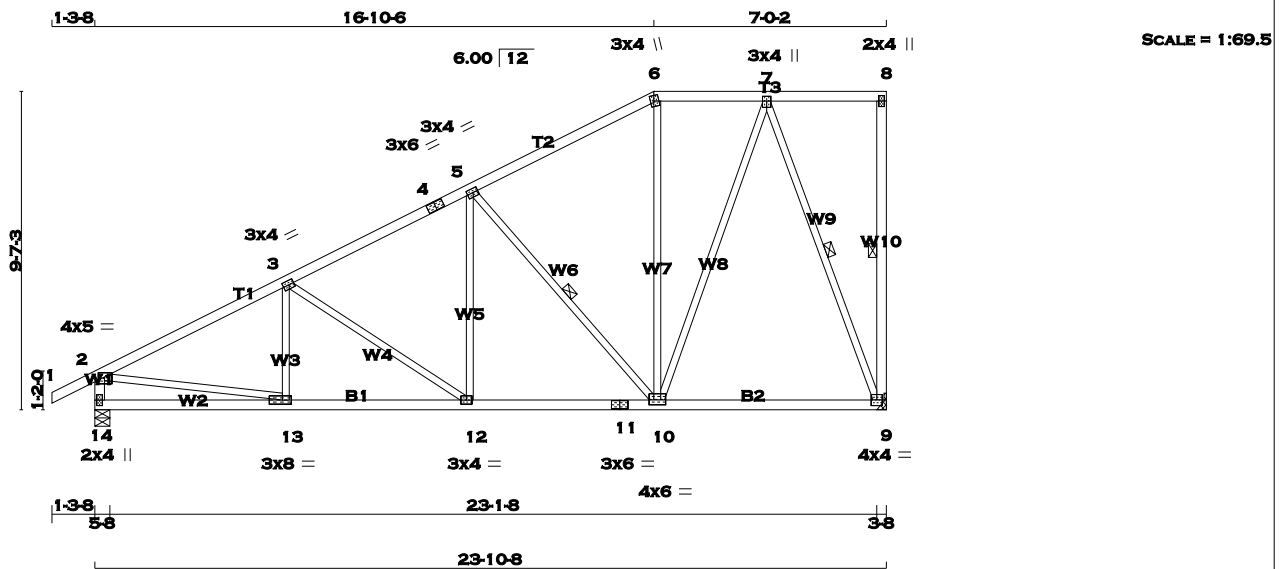
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (11) (INPUT = 0.90 )  
JSI METAL= 0.40 (2) (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.**





TOTAL WEIGHT = 117 lb  
[M][F]

| LUMBER                |      | N. L. G. A. RULES |      | LUMBER | DESCR. |
|-----------------------|------|-------------------|------|--------|--------|
| CHORDS                | SIZE |                   |      |        |        |
| 1 - 4                 | 2x4  | DRY               | No.2 | SPF    | SPF    |
| 4 - 6                 | 2x4  | DRY               | No.2 |        |        |
| 6 - 8                 | 2x4  | DRY               | No.2 |        |        |
| 9 - 8                 | 2x4  | DRY               | No.2 |        |        |
| 14 - 2                | 2x4  | DRY               | No.2 |        |        |
| 14 - 11               | 2x4  | DRY               | No.2 |        |        |
| 11 - 9                | 2x4  | DRY               | No.2 |        |        |
| ALL WEBS EXCEPT       | 2x3  | DRY               | No.2 | SPF    | SPF    |
| DRY: SEASONED LUMBER. |      |                   |      |        |        |

| PLATES (table is in inches) |         |        |     |     |      |      |
|-----------------------------|---------|--------|-----|-----|------|------|
| JT                          | TYPE    | PLATES | W   | LEN | Y    | X    |
| 2                           | TMVW-p  | MT20   | 4.0 | 5.0 | 1.50 | 2.25 |
| 3                           | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 4                           | TS-t    | MT20   | 3.0 | 6.0 |      |      |
| 5                           | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 6                           | TTW+m   | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 7                           | TMVW+t  | MT20   | 3.0 | 4.0 | 1.75 | 1.50 |
| 8                           | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 9                           | BMVW1-t | MT20   | 4.0 | 4.0 |      |      |
| 10                          | BMVWV-t | MT20   | 4.0 | 6.0 | 1.75 | 3.00 |
| 11                          | BS-t    | MT20   | 3.0 | 6.0 |      |      |
| 12                          | BMVW-t  | MT20   | 3.0 | 4.0 |      |      |
| 13                          | BMVW-t  | MT20   | 3.0 | 8.0 | 1.50 | 3.25 |
| 14                          | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

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  |     | REQRD |  |
|----------|------|-------------------------|------|---------------------------------|------|--------|-----|-------|--|
| JT       |      | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT | BRG | BRG   |  |
| 9        | 1132 | 0                       |      | 1132                            | 0    | 0      | 5-8 | 5-8   |  |
| 14       | 1237 | 0                       |      | 1237                            | 0    | 0      | 5-8 | 5-8   |  |

| UNFACTORED REACTIONS |     | 1ST LCASE |       | MAX./MIN. COMPONENT REACTIONS |           |       |         |       |  |
|----------------------|-----|-----------|-------|-------------------------------|-----------|-------|---------|-------|--|
| JT                   |     | COMBINED  | SNOW  | LIVE                          | PERM.LIVE | WIND  | DEAD    | SOIL  |  |
| 9                    | 795 | 556 / 0   | 0 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 239 / 0 | 0 / 0 |  |
| 14                   | 866 | 619 / 0   | 0 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 247 / 0 | 0 / 0 |  |

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.95 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 8-9, 5-10. DBS = 20-0-0 . CBF = 90 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-9. DBS = 14-0-0 . CBF = 92 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: (3)     |              |                    |       |                           |                    |       |                           |
|-------------|---------------------------|---------------------------|--------------|--------------------|-------|---------------------------|--------------------|-------|---------------------------|
| C H O R D S |                           | W E B S                   |              |                    |       |                           |                    |       |                           |
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) |
| FR-TO       |                           | FROM TO                   |              |                    | FR-TO |                           |                    | FR-TO |                           |
| 1-2         | 0 / 23                    | -77.3 -77.3               | 0.10 (1)     | 10.00              | 13-3  | -99 / 65                  | 0.02 (1)           |       |                           |
| 2-3         | -1546 / 0                 | -77.3 -77.3               | 0.34 (1)     | 4.95               | 3-12  | -391 / 0                  | 0.32 (1)           |       |                           |
| 3-4         | -1202 / 0                 | -77.3 -77.3               | 0.28 (1)     | 5.53               | 12-5  | 0 / 305                   | 0.07 (1)           |       |                           |
| 4-5         | -1202 / 0                 | -77.3 -77.3               | 0.28 (1)     | 5.53               | 5-10  | -718 / 0                  | 0.37 (1)           |       |                           |
| 5-6         | -695 / 0                  | -77.3 -77.3               | 0.28 (1)     | 6.25               | 10-6  | 0 / 63                    | 0.02 (3)           |       |                           |
| 6-7         | -605 / 0                  | -77.3 -77.3               | 0.12 (1)     | 6.25               | 10-7  | 0 / 679                   | 0.15 (1)           |       |                           |
| 7-8         | 0 / 0                     | -77.3 -77.3               | 0.16 (1)     | 10.00              | 7-9   | -1046 / 0                 | 0.75 (1)           |       |                           |
| 9-8         | -108 / 0                  | 0.0 0.0                   | 0.05 (1)     | 6.25               | 2-13  | 0 / 1414                  | 0.32 (1)           |       |                           |
| 14-2        | -1195 / 0                 | 0.0 0.0                   | 0.12 (1)     | 7.31               |       |                           |                    |       |                           |
| 14-13       | 0 / 0                     | -17.5 -17.5               | 0.13 (3)     | 10.00              |       |                           |                    |       |                           |
| 13-12       | 0 / 1399                  | -17.5 -17.5               | 0.29 (1)     | 10.00              |       |                           |                    |       |                           |
| 12-11       | 0 / 1075                  | -17.5 -17.5               | 0.28 (1)     | 10.00              |       |                           |                    |       |                           |
| 11-10       | 0 / 1075                  | -17.5 -17.5               | 0.28 (1)     | 10.00              |       |                           |                    |       |                           |
| 10-9        | 0 / 378                   | -17.5 -17.5               | 0.21 (3)     | 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

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 (0.80")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (0.80")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.10")

CSI: TC=0.34 (2-3:1) , BC=0.29 (12-13:1) , WB=0.75 (7-9:1) , SSI=0.18 (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) SHEAR SECTION (PSI) (PLI) (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.

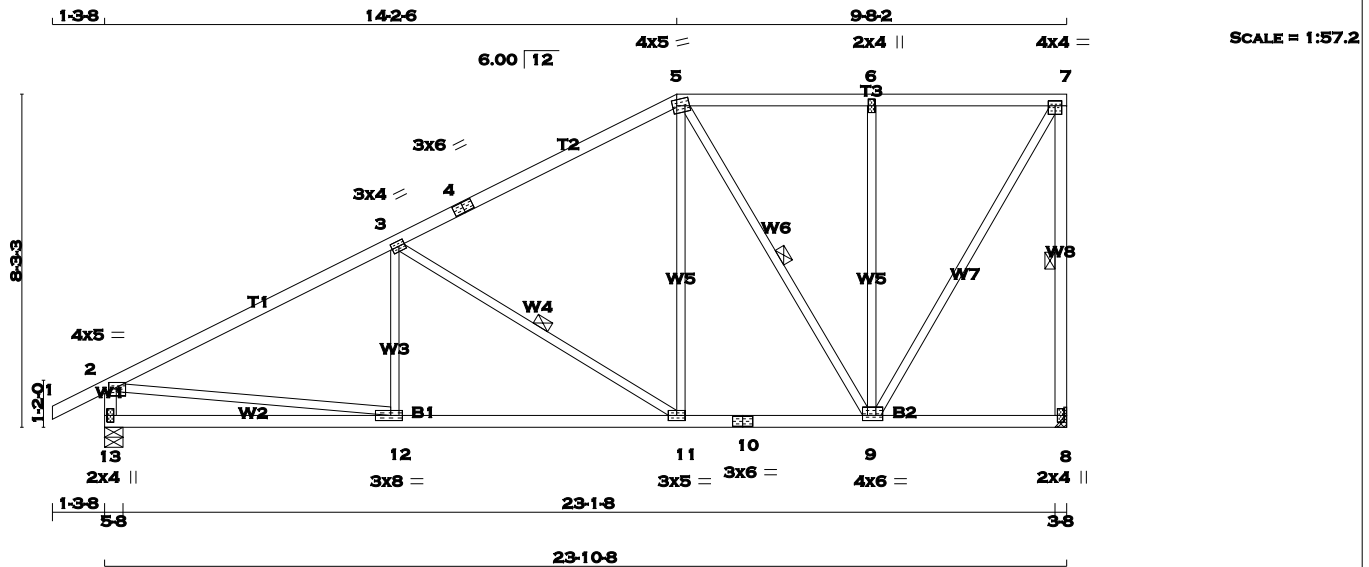
JSI GRIP= 0.89 (13) (INPUT = 0.90 )  
JSI METAL= 0.40 (2) (INPUT = 1.00 )



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TOTAL WEIGHT = 110 lb  
[M][F]

| LUMBER                |      |        |      | DESCR. |     |
|-----------------------|------|--------|------|--------|-----|
| N. L. G. A. RULES     |      | LUMBER | SIZE | DRY    | SPF |
| CHORDS                | SIZE |        |      |        |     |
| 1 - 4                 | 2x4  | No.2   |      |        |     |
| 4 - 5                 | 2x4  | No.2   |      |        |     |
| 5 - 7                 | 2x4  | No.2   |      |        |     |
| 8 - 7                 | 2x4  | No.2   |      |        |     |
| 13 - 2                | 2x4  | No.2   |      |        |     |
| 13 - 10               | 2x4  | No.2   |      |        |     |
| 10 - 8                | 2x4  | No.2   |      |        |     |
| 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-p  | MT20   | 4.0 | 5.0 | 1.50 | 2.25 |
| 3                                                                                | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 4                                                                                | TS-t    | MT20   | 3.0 | 6.0 |      |      |
| 5                                                                                | TTWW-m  | MT20   | 4.0 | 5.0 | 1.75 | 1.25 |
| 6                                                                                | TMVW-w  | MT20   | 2.0 | 4.0 |      |      |
| 7                                                                                | TMVW-t  | MT20   | 4.0 | 4.0 | 1.50 | 2.00 |
| 8                                                                                | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 9                                                                                | BMVWW-t | MT20   | 4.0 | 6.0 | 1.50 | 1.50 |
| 10                                                                               | BS-t    | MT20   | 3.0 | 6.0 |      |      |
| 11                                                                               | BMVW-t  | MT20   | 3.0 | 5.0 |      |      |
| 12                                                                               | BMVW-t  | MT20   | 3.0 | 8.0 | 1.50 | 3.50 |
| 13                                                                               | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 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 | MIN. SEAT SIZE: 3-8 |  |
| 8        | 1132 | 0                       | 1132 | 0                               | 0      | 5-8       | 5-8   |                     |  |
| 13       | 1237 | 0                       | 1237 | 0                               | 0      | 5-8       | 5-8   |                     |  |

| UNFACTORED REACTIONS |           |          |       |       |           |       |         |
|----------------------|-----------|----------|-------|-------|-----------|-------|---------|
| JT                   | 1ST LCASE | COMBINED | SNOW  | LIVE  | PERM.LIVE | WIND  | DEAD    |
| 8                    | 795       | 556 / 0  | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 239 / 0 |
| 13                   | 866       | 619 / 0  | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 247 / 0 |

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.59 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-8. DBS = 12-0-0 . CBF = 82 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 3-11, 5-9. DBS = 20-0-0 . CBF = 86 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: (3)

| C H O R D S |                           |                           |                         | W E B S |                           |                         |          |
|-------------|---------------------------|---------------------------|-------------------------|---------|---------------------------|-------------------------|----------|
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRAC LENGTH (LC) | MEMB.   | MAX. FACTORED FORCE (LBS) | MAX. UNBRAC LENGTH (LC) |          |
| FR-TO       |                           | FROM TO                   |                         | FR-TO   |                           |                         |          |
| 1-2         | 0 / 23                    | -77.3 -77.3               | 0.10 (1)                | 10.00   | 12-3                      | -25 / 113               | 0.04 (3) |
| 2-3         | -1538 / 0                 | -77.3 -77.3               | 0.59 (1)                | 4.59    | 3-11                      | -689 / 0                | 0.33 (1) |
| 3-4         | -946 / 0                  | -77.3 -77.3               | 0.53 (1)                | 5.61    | 11-5                      | 0 / 469                 | 0.11 (1) |
| 4-5         | -946 / 0                  | -77.3 -77.3               | 0.53 (1)                | 5.61    | 5-9                       | -474 / 0                | 0.28 (1) |
| 5-6         | -579 / 0                  | -77.3 -77.3               | 0.23 (1)                | 6.25    | 9-6                       | -462 / 0                | 0.62 (1) |
| 6-7         | -579 / 0                  | -77.3 -77.3               | 0.23 (1)                | 6.25    | 9-7                       | 0 / 1116                | 0.25 (1) |
| 8-7         | -1096 / 0                 | 0.0 0.0                   | 0.34 (1)                | 6.04    | 2-12                      | 0 / 1412                | 0.32 (1) |
| 13-2        | -1186 / 0                 | 0.0 0.0                   | 0.12 (1)                | 7.33    |                           |                         |          |
| 13-12       | 0 / 0                     | -17.5 -17.5               | 0.22 (3)                | 10.00   |                           |                         |          |
| 12-11       | 0 / 1402                  | -17.5 -17.5               | 0.34 (1)                | 10.00   |                           |                         |          |
| 11-10       | 0 / 825                   | -17.5 -17.5               | 0.20 (1)                | 10.00   |                           |                         |          |
| 10-9        | 0 / 825                   | -17.5 -17.5               | 0.20 (1)                | 10.00   |                           |                         |          |
| 9-8         | 0 / 0                     | -17.5 -17.5               | 0.09 (3)                | 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**

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 (0.80")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")  
ALLOWABLE DEFL.(TL)= L/360 (0.80")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.12")

CSI: TC=0.59 (2-3:1) , BC=0.34 (11-12:1) , WB=0.62 (6-9:1) , SSI=0.24 (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) SHEAR SECTION (PSI) (PLI) (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.

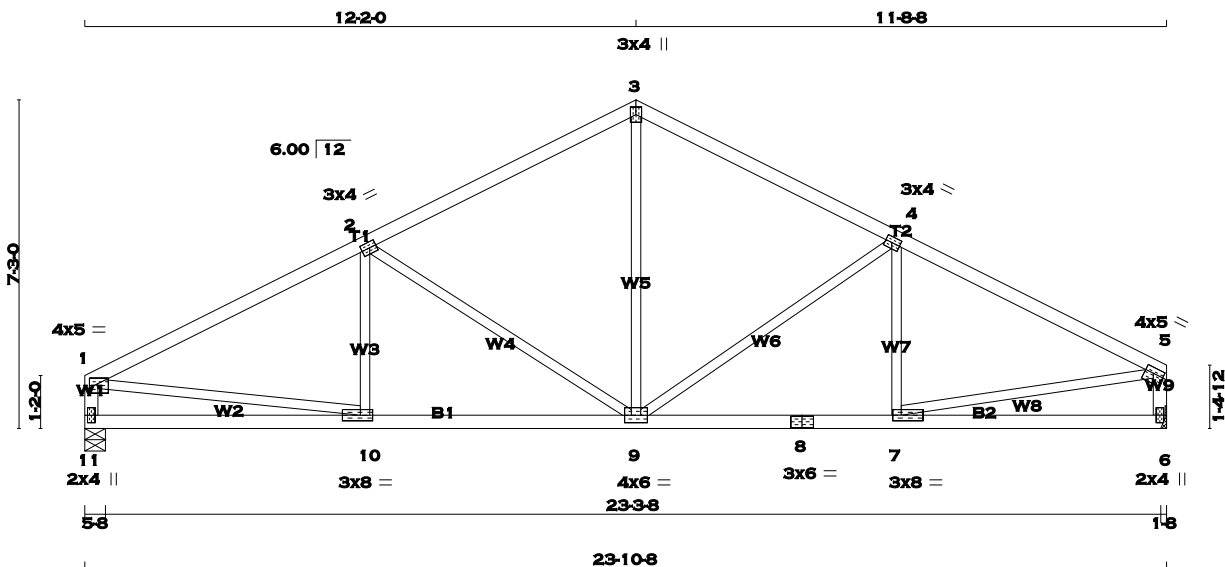
JSI GRIP= 0.88 (9) (INPUT = 0.90 )  
JSI METAL= 0.40 (2) (INPUT = 1.00 )



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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.





TOTAL WEIGHT = 92 lb

| LUMBER          |      |        |        | N. L. G. A. RULES |  |
|-----------------|------|--------|--------|-------------------|--|
| CHORDS          | SIZE | LUMBER | DESCR. | SPF               |  |
| 1 - 3           | 2x4  | DRY    | No.2   | SPF               |  |
| 3 - 5           | 2x4  | DRY    | No.2   | SPF               |  |
| 11 - 1          | 2x4  | DRY    | No.2   | SPF               |  |
| 6 - 5           | 2x4  | DRY    | No.2   | SPF               |  |
| 11 - 8          | 2x4  | DRY    | No.2   | SPF               |  |
| 8 - 6           | 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 | 5.0 | 1.50 | 2.25 |
| 2                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 3                           | TTW+p  | MT20   | 3.0 | 4.0 |      |      |
| 4                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 5                           | TMVW-t | MT20   | 4.0 | 5.0 | 1.50 | 2.25 |
| 6                           | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 7                           | BMVW-t | MT20   | 3.0 | 8.0 | 1.50 | 2.25 |
| 8                           | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| 9                           | BMVW-t | MT20   | 4.0 | 6.0 |      |      |
| 10                          | BMVW-t | MT20   | 3.0 | 8.0 | 1.50 | 3.25 |
| 11                          | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

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    |
| 11       | 1132 | 0                       | 1132                            | 0         | 0         |
| 6        | 1132 | 0                       | 1132                            | 0         | 0         |

HANGER BY OTHERS  
MIN. SEAT SIZE: 1-8

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. | COMPONENT REACTIONS | PERM.LIVE | WIND  | DEAD    | SOIL  |
|----|-----------|-----------|---------------------|-----------|-------|---------|-------|
| 11 | 795       | 556 / 0   | 0 / 0               | 0 / 0     | 0 / 0 | 239 / 0 | 0 / 0 |
| 6  | 795       | 556 / 0   | 0 / 0               | 0 / 0     | 0 / 0 | 239 / 0 | 0 / 0 |

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

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.83 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

#### LOADING

TOTAL LOAD CASES: (3)

| CHORDS |                           |                  |                | WEBS  |                           |           |          |
|--------|---------------------------|------------------|----------------|-------|---------------------------|-----------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX. (LC)  | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. (LC) |          |
| FR-TO  |                           | FROM             | TO             | FR-TO |                           | FROM      | TO       |
| 1-2    | -1555 / 0                 | -77.3            | -77.3 0.42 (1) | 4.83  | 10-2                      | -80 / 78  | 0.03 (3) |
| 2-3    | -1121 / 0                 | -77.3            | -77.3 0.38 (1) | 5.51  | 2-9                       | -519 / 0  | 0.51 (1) |
| 3-4    | -1120 / 0                 | -77.3            | -77.3 0.36 (1) | 5.56  | 9-3                       | 0 / 638   | 0.14 (1) |
| 4-5    | -1468 / 0                 | -77.3            | -77.3 0.38 (1) | 4.99  | 9-4                       | -434 / 0  | 0.41 (1) |
| 11-1   | -1087 / 0                 | 0.0              | 0.0 0.11 (1)   | 7.58  | 7-4                       | -133 / 58 | 0.04 (1) |
| 6-5    | -1088 / 0                 | 0.0              | 0.0 0.11 (1)   | 7.58  | 1-10                      | 0 / 1426  | 0.32 (1) |
|        |                           |                  |                |       | 7-5                       | 0 / 1357  | 0.31 (1) |
| 11-10  | 0 / 0                     | -17.5            | -17.5 0.15 (3) | 10.00 |                           |           |          |
| 10-9   | 0 / 1413                  | -17.5            | -17.5 0.30 (1) | 10.00 |                           |           |          |
| 9-8    | 0 / 1334                  | -17.5            | -17.5 0.28 (1) | 10.00 |                           |           |          |
| 8-7    | 0 / 1334                  | -17.5            | -17.5 0.28 (1) | 10.00 |                           |           |          |
| 7-6    | 0 / 0                     | -17.5            | -17.5 0.14 (3) | 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

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 (0.80")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.06")  
ALLOWABLE DEFL.(TL)= L/360 (0.80")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

CSI: TC=0.42 (1-2:1), BC=0.30 (9-10:1), WB=0.51 (2-9:1), SSI=0.21 (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) SHEAR SECTION  
(PSI) (PLI) (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.

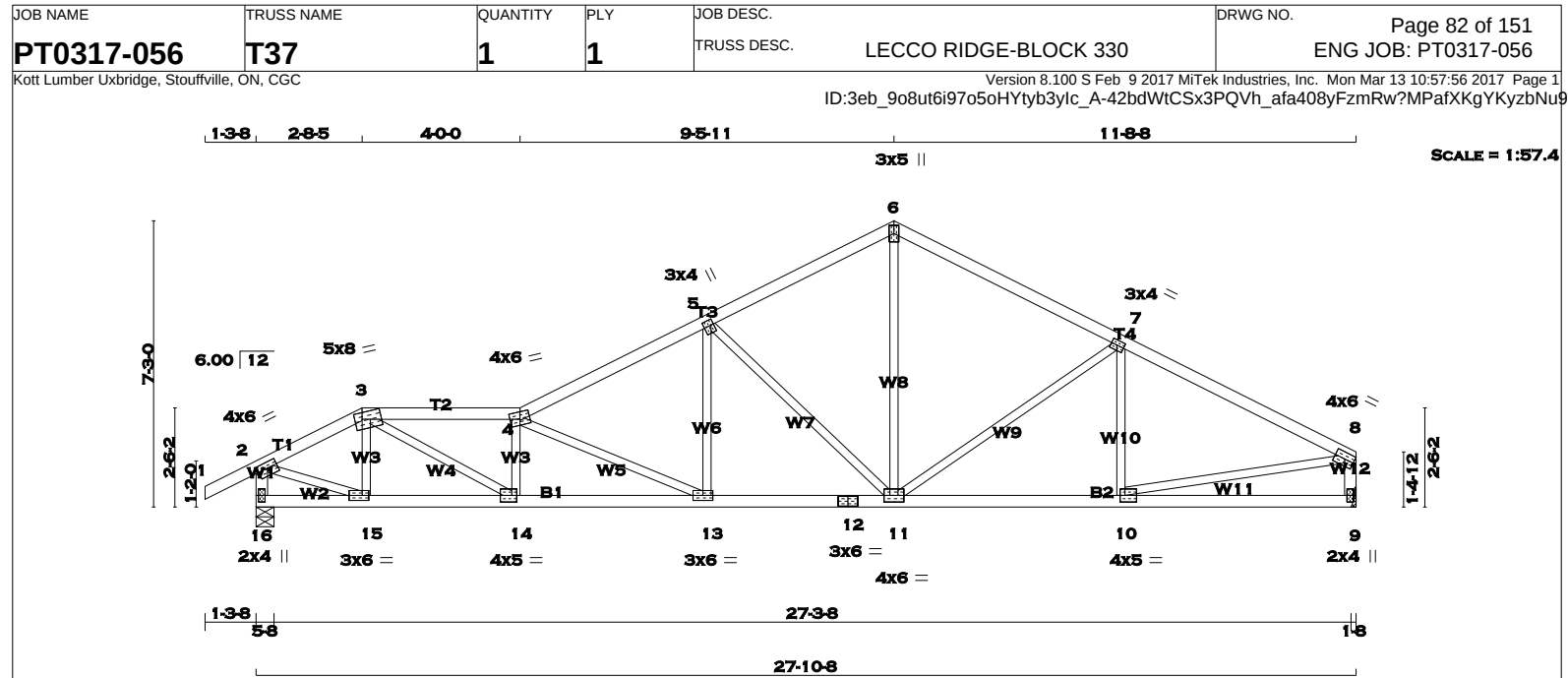
JSI GRIP= 0.89 (7) (INPUT = 0.90)  
JSI METAL= 0.47 (5) (INPUT = 1.00)



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TOTAL WEIGHT = 111 lb  
[M][F]

| LUMBER                |      |        |        | N. L. G. A. RULES |      |        |        |
|-----------------------|------|--------|--------|-------------------|------|--------|--------|
| CHORDS                | SIZE | LUMBER | DESCR. | CHORDS            | SIZE | LUMBER | DESCR. |
| 1 - 3                 | 2x4  | DRY    | No.2   | 1 - 3             | 2x4  | DRY    | No.2   |
| 3 - 4                 | 2x4  | DRY    | No.2   | 3 - 4             | 2x4  | DRY    | No.2   |
| 4 - 6                 | 2x4  | DRY    | No.2   | 4 - 6             | 2x4  | DRY    | No.2   |
| 6 - 8                 | 2x4  | DRY    | No.2   | 6 - 8             | 2x4  | DRY    | No.2   |
| 16 - 2                | 2x4  | DRY    | No.2   | 16 - 2            | 2x4  | DRY    | No.2   |
| 9 - 8                 | 2x4  | DRY    | No.2   | 9 - 8             | 2x4  | DRY    | No.2   |
| 16 - 12               | 2x4  | DRY    | No.2   | 16 - 12           | 2x4  | DRY    | No.2   |
| 12 - 9                | 2x4  | DRY    | No.2   | 12 - 9            | 2x4  | DRY    | No.2   |
| ALL WEBS              | 2x3  | DRY    | No.2   | ALL WEBS          | 2x3  | DRY    | No.2   |
| EXCEPT                |      |        |        | EXCEPT            |      |        |        |
| DRY: SEASONED LUMBER. |      |        |        |                   |      |        |        |

| PLATES (table is in inches)                                                      |        |        |     |     |      |      |    |        |        |
|----------------------------------------------------------------------------------|--------|--------|-----|-----|------|------|----|--------|--------|
| JT                                                                               | TYPE   | PLATES | W   | LEN | Y    | X    | JT | TYPE   | PLATES |
| 2                                                                                | TMVW-t | MT20   | 4.0 | 6.0 | 1.75 | 3.00 | 2  | TMVW-t | MT20   |
| 3                                                                                | TTWW-m | MT20   | 5.0 | 8.0 | 2.00 | 2.25 | 3  | TTWW-m | MT20   |
| 4                                                                                | TTWW-m | MT20   | 4.0 | 6.0 | 2.25 | 3.00 | 4  | TTWW-m | MT20   |
| 5                                                                                | TMWW-t | MT20   | 3.0 | 4.0 | 1.75 | 0.75 | 5  | TMWW-t | MT20   |
| 6                                                                                | TTW+p  | MT20   | 3.0 | 5.0 |      |      | 6  | TTW+p  | MT20   |
| 7                                                                                | TMWW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 | 7  | TMWW-t | MT20   |
| 8                                                                                | TMVW-t | MT20   | 4.0 | 6.0 |      | Edge | 8  | TMVW-t | MT20   |
| 9                                                                                | BMV1+p | MT20   | 2.0 | 4.0 |      |      | 9  | BMV1+p | MT20   |
| 10                                                                               | BMWW-t | MT20   | 4.0 | 5.0 | 2.00 | 1.50 | 10 | BMWW-t | MT20   |
| 11                                                                               | BMWW-t | MT20   | 4.0 | 6.0 |      |      | 11 | BMWW-t | MT20   |
| 12                                                                               | BS-t   | MT20   | 3.0 | 6.0 |      |      | 12 | BS-t   | MT20   |
| 13                                                                               | BMWW-t | MT20   | 3.0 | 6.0 |      |      | 13 | BMWW-t | MT20   |
| 14                                                                               | BMWW-t | MT20   | 4.0 | 5.0 | 2.00 | 1.50 | 14 | BMWW-t | MT20   |
| 15                                                                               | BMWW-t | MT20   | 3.0 | 6.0 | 1.50 | 2.00 | 15 | BMWW-t | MT20   |
| 16                                                                               | BMV1+p | MT20   | 2.0 | 4.0 |      |      | 16 | BMV1+p | MT20   |
| 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. |        |        |     |     |      |      |    |        |        |

| 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     | IN-SX |
| 16                                                                                            |  | 1427                    | 0    | 1427                            | 0    | 0         | 5-8              | 5-8       |       |
| 9                                                                                             |  | 1322                    | 0    | 1322                            | 0    | 0         | HANGER BY OTHERS |           |       |
| MIN. SEAT SIZE: 1-8                                                                           |  |                         |      |                                 |      |           |                  |           |       |

| UNFACTORED REACTIONS |           |           |           |           |    |           |           |
|----------------------|-----------|-----------|-----------|-----------|----|-----------|-----------|
| JT                   | 1ST LCASE | MAX./MIN. | COMPONENT | REACTIONS | JT | 1ST LCASE | MAX./MIN. |
| 16                   | 999       | 712 / 0   | 0 / 0     | 0 / 0     | 16 | 999       | 712 / 0   |
| 9                    | 928       | 649 / 0   | 0 / 0     | 0 / 0     | 9  | 928       | 649 / 0   |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 16

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.83 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

| LOADING                                                                           |           |       |       |          |       |      |           |          |  |
|-----------------------------------------------------------------------------------|-----------|-------|-------|----------|-------|------|-----------|----------|--|
| TOTAL LOAD CASES: (3)                                                             |           |       |       |          |       |      |           |          |  |
| CHORDS                                                                            |           |       |       |          |       |      |           |          |  |
| MEMB. FORCE VERT. LOAD LC1 MAX. FACTORED (LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO |           |       |       |          |       |      |           |          |  |
| 1-2                                                                               | 0 / 23    | -77.3 | -77.3 | 0.10 (1) | 10.00 | 15-3 | -376 / 0  | 0.06 (1) |  |
| 2-3                                                                               | -1662 / 0 | -77.3 | -77.3 | 0.10 (1) | 5.07  | 3-14 | 0 / 1749  | 0.39 (1) |  |
| 3-4                                                                               | -2988 / 0 | -77.3 | -77.3 | 0.26 (1) | 3.83  | 14-4 | -814 / 0  | 0.13 (1) |  |
| 4-5                                                                               | -2216 / 0 | -77.3 | -77.3 | 0.29 (1) | 4.34  | 4-13 | -1132 / 0 | 0.53 (1) |  |
| 5-6                                                                               | -1472 / 0 | -77.3 | -77.3 | 0.24 (1) | 5.15  | 13-5 | 0 / 572   | 0.13 (1) |  |
| 6-7                                                                               | -1477 / 0 | -77.3 | -77.3 | 0.37 (1) | 4.99  | 5-11 | -975 / 0  | 0.77 (1) |  |
| 7-8                                                                               | -1778 / 0 | -77.3 | -77.3 | 0.40 (1) | 4.61  | 11-6 | 0 / 991   | 0.22 (1) |  |
| 16-2                                                                              | -1412 / 0 | 0.0   | 0.0   | 0.14 (1) | 6.86  | 11-7 | -383 / 0  | 0.36 (1) |  |
| 9-8                                                                               | -1278 / 0 | 0.0   | 0.0   | 0.13 (1) | 7.13  | 10-7 | -182 / 44 | 0.05 (1) |  |
|                                                                                   |           |       |       |          |       | 2-15 | 0 / 1553  | 0.35 (1) |  |
|                                                                                   |           |       |       |          |       | 10-8 | 0 / 1638  | 0.37 (1) |  |
| 16-15                                                                             | 0 / 0     | -17.5 | -17.5 | 0.04 (3) | 10.00 |      |           |          |  |
| 15-14                                                                             | 0 / 1467  | -17.5 | -17.5 | 0.28 (1) | 10.00 |      |           |          |  |
| 14-13                                                                             | 0 / 3027  | -17.5 | -17.5 | 0.56 (1) | 10.00 |      |           |          |  |
| 13-12                                                                             | 0 / 2000  | -17.5 | -17.5 | 0.38 (1) | 10.00 |      |           |          |  |
| 12-11                                                                             | 0 / 2000  | -17.5 | -17.5 | 0.38 (1) | 10.00 |      |           |          |  |
| 11-10                                                                             | 0 / 1611  | -17.5 | -17.5 | 0.32 (1) | 10.00 |      |           |          |  |
| 10-9                                                                              | 0 / 0     | -17.5 | -17.5 | 0.14 (3) | 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

LOADING IN ALL FLAT SECTIONS 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 (0.93")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.14")  
ALLOWABLE DEFL.(TL)= L/360 (0.93")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.26")

CSI: TC=0.40 (7-8:1), BC=0.56 (13-14:1), WB=0.77 (5-11:1), SSI=0.20 (7-8:1)

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) SHEAR SECTION  
(PSI) (PLI) (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.

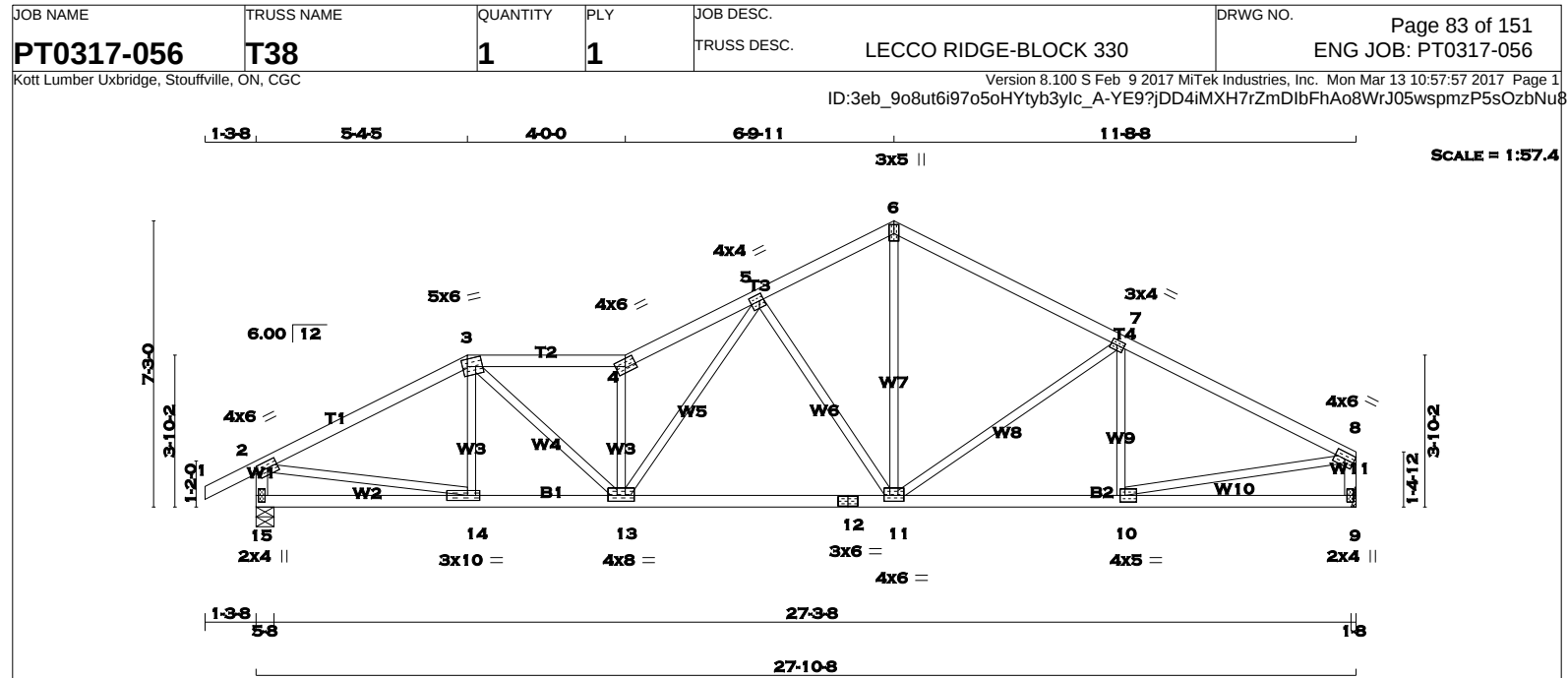
JSI GRIP= 0.89 (10) (INPUT = 0.90)  
JSI METAL= 0.49 (12) (INPUT = 1.00)



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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.





|                                                                                                    |  |  |  |  |                                                                                                      |  |  |  |  |                                 |  |             |  |           |                       |  |  |  |  |
|----------------------------------------------------------------------------------------------------|--|--|--|--|------------------------------------------------------------------------------------------------------|--|--|--|--|---------------------------------|--|-------------|--|-----------|-----------------------|--|--|--|--|
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR. SPF                                |  |  |  |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b> |  |  |  |  |                                 |  |             |  |           | TOTAL WEIGHT = 112 LB |  |  |  |  |
|                                                                                                    |  |  |  |  | <b>BEARINGS</b>                                                                                      |  |  |  |  |                                 |  |             |  |           | [M][F]                |  |  |  |  |
|                                                                                                    |  |  |  |  | FACTORED GROSS REACTION                                                                              |  |  |  |  | MAXIMUM FACTORED GROSS REACTION |  | INPUT BRG   |  | REQRD BRG |                       |  |  |  |  |
|                                                                                                    |  |  |  |  | JT VERT HORZ                                                                                         |  |  |  |  | DOWN HORZ UPLIFT                |  | IN-SX IN-SX |  |           |                       |  |  |  |  |
| 1 - 3                                                                                              |  |  |  |  | 2x4 DRY No.2 SPF                                                                                     |  |  |  |  | 15 1427 0 1427 0 0              |  |             |  |           | 5-8 5-8               |  |  |  |  |
| 3 - 4                                                                                              |  |  |  |  | 2x4 DRY No.2 SPF                                                                                     |  |  |  |  | 9 1322 0 1322 0 0               |  |             |  |           | HANGER BY OTHERS      |  |  |  |  |
| 4 - 6                                                                                              |  |  |  |  | 2x4 DRY No.2 SPF                                                                                     |  |  |  |  |                                 |  |             |  |           | MIN. SEAT SIZE: 1-8   |  |  |  |  |
| 6 - 8                                                                                              |  |  |  |  | 2x4 DRY No.2 SPF                                                                                     |  |  |  |  |                                 |  |             |  |           |                       |  |  |  |  |
| 15 - 2                                                                                             |  |  |  |  | 2x4 DRY No.2 SPF                                                                                     |  |  |  |  |                                 |  |             |  |           |                       |  |  |  |  |
| 9 - 8                                                                                              |  |  |  |  | 2x4 DRY No.2 SPF                                                                                     |  |  |  |  |                                 |  |             |  |           |                       |  |  |  |  |
| 15 - 12                                                                                            |  |  |  |  | 2x4 DRY No.2 SPF                                                                                     |  |  |  |  |                                 |  |             |  |           |                       |  |  |  |  |
| 12 - 9                                                                                             |  |  |  |  | 2x4 DRY No.2 SPF                                                                                     |  |  |  |  |                                 |  |             |  |           |                       |  |  |  |  |
| ALL WEBS EXCEPT                                                                                    |  |  |  |  | 2x3 DRY No.2 SPF                                                                                     |  |  |  |  |                                 |  |             |  |           |                       |  |  |  |  |
| DRY: SEASONED LUMBER.                                                                              |  |  |  |  |                                                                                                      |  |  |  |  |                                 |  |             |  |           |                       |  |  |  |  |
| <b>DESIGN CRITERIA</b>                                                                             |  |  |  |  |                                                                                                      |  |  |  |  |                                 |  |             |  |           |                       |  |  |  |  |
| 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                                                                              |  |  |  |  |                                                                                                      |  |  |  |  |                                 |  |             |  |           |                       |  |  |  |  |
| <b>SPACING = 24.0 IN. C/C</b>                                                                      |  |  |  |  |                                                                                                      |  |  |  |  |                                 |  |             |  |           |                       |  |  |  |  |
| LOADING IN ALL FLAT SECTIONS 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 (0.93")                                                                 |  |  |  |  |                                                                                                      |  |  |  |  |                                 |  |             |  |           |                       |  |  |  |  |
| CALCULATED VERT. DEFL.(LL) = L/ 999 (0.12")                                                        |  |  |  |  |                                                                                                      |  |  |  |  |                                 |  |             |  |           |                       |  |  |  |  |
| ALLOWABLE DEFL.(TL)= L/360 (0.93")                                                                 |  |  |  |  |                                                                                                      |  |  |  |  |                                 |  |             |  |           |                       |  |  |  |  |
| CALCULATED VERT. DEFL.(TL) = L/ 999 (0.24")                                                        |  |  |  |  |                                                                                                      |  |  |  |  |                                 |  |             |  |           |                       |  |  |  |  |
| CSI: TC=0.40 (7-8:1) , BC=0.38 (11-13:1) , WB=0.57 (5-11:1) , SSI=0.20 (7-8:1)                     |  |  |  |  |                                                                                                      |  |  |  |  |                                 |  |             |  |           |                       |  |  |  |  |
| 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) SHEAR SECTION                                                                      |  |  |  |  |                                                                                                      |  |  |  |  |                                 |  |             |  |           |                       |  |  |  |  |
| (PSI) (PLI) (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= 0.89 (10) (INPUT = 0.90 )                                                                |  |  |  |  |                                                                                                      |  |  |  |  |                                 |  |             |  |           |                       |  |  |  |  |
| JSI METAL= 0.52 (4) (INPUT = 1.00 )                                                                |  |  |  |  |                                                                                                      |  |  |  |  |                                 |  |             |  |           |                       |  |  |  |  |

|                                                                                  |        |        |     |      |      |      |
|----------------------------------------------------------------------------------|--------|--------|-----|------|------|------|
| <b>PLATES (table is in inches)</b>                                               |        |        |     |      |      |      |
| JT                                                                               | TYPE   | PLATES | W   | LEN  | Y    | X    |
| 2                                                                                | TMVW-t | MT20   | 4.0 | 6.0  | 2.00 | 3.00 |
| 3                                                                                | TTWW-m | MT20   | 5.0 | 6.0  | 2.25 | 1.50 |
| 4                                                                                | TTW-h  | MT20   | 4.0 | 6.0  | 2.25 | 3.25 |
| 5                                                                                | TMVW-t | MT20   | 4.0 | 4.0  | 2.00 | 1.25 |
| 6                                                                                | TTW+p  | MT20   | 3.0 | 5.0  | 2.75 | 1.50 |
| 7                                                                                | TMVW-t | MT20   | 3.0 | 4.0  | 1.50 | 1.75 |
| 8                                                                                | TMVW-t | MT20   | 4.0 | 6.0  |      | Edge |
| 9                                                                                | BMV1+p | MT20   | 2.0 | 4.0  |      |      |
| 10                                                                               | BMVW-t | MT20   | 4.0 | 5.0  | 2.00 | 1.50 |
| 11                                                                               | BMVW-t | MT20   | 4.0 | 6.0  | 1.75 | 3.00 |
| 12                                                                               | BS-t   | MT20   | 3.0 | 6.0  |      |      |
| 13                                                                               | BMVW-t | MT20   | 4.0 | 8.0  | 1.75 | 4.00 |
| 14                                                                               | BMVW-t | MT20   | 3.0 | 10.0 | 1.50 | 3.75 |
| 15                                                                               | 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. |        |        |     |      |      |      |

|                                 |  |  |  |  |                                   |  |  |  |  |
|---------------------------------|--|--|--|--|-----------------------------------|--|--|--|--|
| <b>CHORDS</b>                   |  |  |  |  | <b>WEBS</b>                       |  |  |  |  |
| MEMB. MAX. FACTORED FORCE (LBS) |  |  |  |  | MEMB. MAX. FACTORED FORCE (LBS)   |  |  |  |  |
| VERT. LOAD LC1 MAX (PLF)        |  |  |  |  | MAX. FACTORED UNBRAC LENGTH FR-TO |  |  |  |  |
| CSI (LC)                        |  |  |  |  |                                   |  |  |  |  |
| FR-TO                           |  |  |  |  | FR-TO                             |  |  |  |  |
| 1-2 0 / 23                      |  |  |  |  | 10.00 14-3 -165 / 21 0.04 (1)     |  |  |  |  |
| 2-3 -1823 / 0                   |  |  |  |  | 4.63 3-13 0 / 922 0.21 (1)        |  |  |  |  |
| 3-4 -2306 / 0                   |  |  |  |  | 4.33 13-4 -1423 / 0 0.33 (1)      |  |  |  |  |
| 4-5 -2608 / 0                   |  |  |  |  | 4.14 13-5 0 / 1065 0.24 (1)       |  |  |  |  |
| 5-6 -1472 / 0                   |  |  |  |  | 5.27 5-11 -829 / 0 0.57 (1)       |  |  |  |  |
| 6-7 -1482 / 0                   |  |  |  |  | 4.98 11-6 0 / 1035 0.23 (1)       |  |  |  |  |
| 7-8 -1776 / 0                   |  |  |  |  | 4.61 11-7 -375 / 0 0.35 (1)       |  |  |  |  |
| 15-2 -1385 / 0                  |  |  |  |  | 6.91 10-7 -190 / 37 0.05 (1)      |  |  |  |  |
| 9-8 -1276 / 0                   |  |  |  |  | 7.13 2-14 0 / 1649 0.37 (1)       |  |  |  |  |
|                                 |  |  |  |  | 10-8 0 / 1636 0.37 (1)            |  |  |  |  |
| 15-14 0 / 0                     |  |  |  |  | 10.00                             |  |  |  |  |
| 14-13 0 / 1624                  |  |  |  |  | 10.00                             |  |  |  |  |
| 13-12 0 / 1755                  |  |  |  |  | 10.00                             |  |  |  |  |
| 12-11 0 / 1755                  |  |  |  |  | 10.00                             |  |  |  |  |
| 11-10 0 / 1610                  |  |  |  |  | 10.00                             |  |  |  |  |
| 10-9 0 / 0                      |  |  |  |  | 10.00                             |  |  |  |  |

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LICENSED PROFESSIONAL ENGINEER

PAUL TREVISAN

100136551

March 13th, 2017

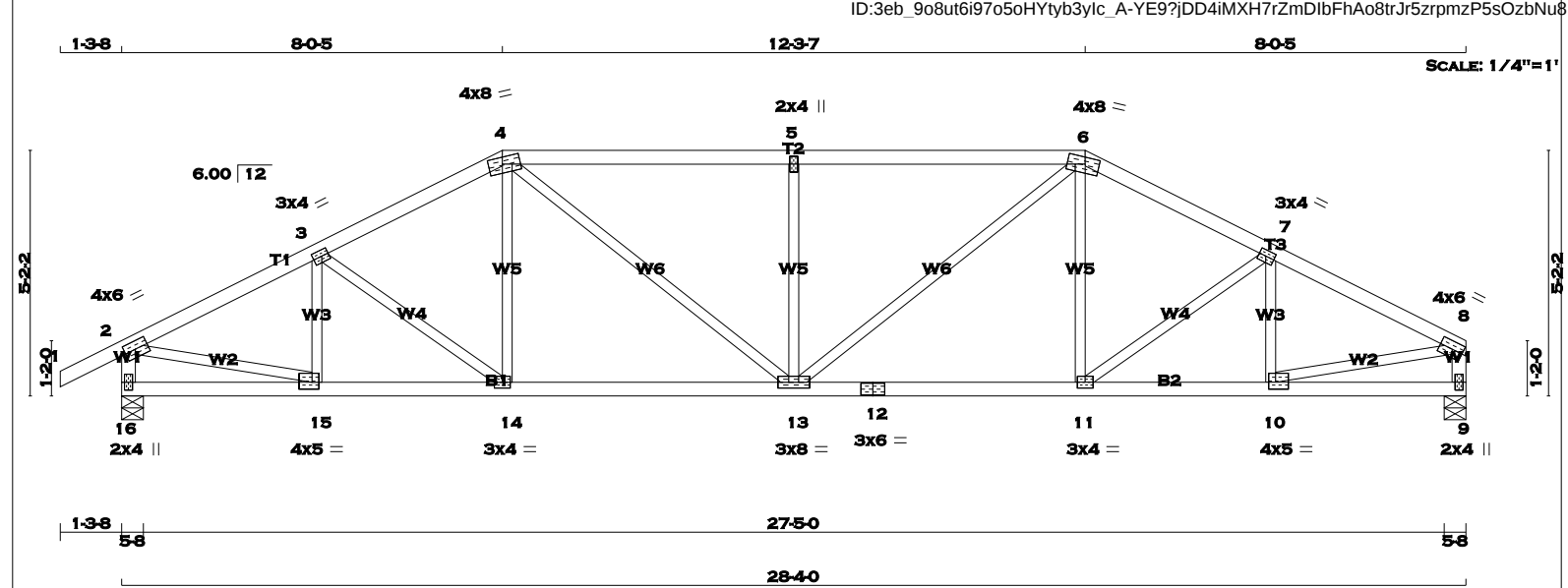
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| TOTAL WEIGHT = 112 lb                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | [M][F]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR.<br>1 - 4 2x4 DRY No.2 SPF<br>4 - 6 2x4 DRY No.2 SPF<br>6 - 8 2x4 DRY No.2 SPF<br>16 - 2 2x4 DRY No.2 SPF<br>9 - 8 2x4 DRY No.2 SPF<br>16 - 12 2x4 DRY No.2 SPF<br>12 - 9 2x4 DRY No.2 SPF<br><br>ALL WEBS 2x3 DRY No.2 SPF<br>EXCEPT<br><br>DRY: SEASONED LUMBER.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br>FACTORED MAXIMUM FACTORED INPUT REQRD<br>GROSS REACTION GROSS REACTION BRG BRG<br>JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX<br>16 1449 0 1449 0 0 5-8 5-8<br>9 1344 0 1344 0 0 5-8 5-8<br><br><b>UNFACTORED REACTIONS</b><br>1ST LCASE MAX./MIN. COMPONENT REACTIONS<br>JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL<br>16 1014 723 / 0 0 / 0 0 / 0 291 / 0 0 / 0<br>9 943 660 / 0 0 / 0 0 / 0 0 / 0 283 / 0 0 / 0<br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 16, 9<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.31 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.<br><br><b>LOADING</b><br>TOTAL LOAD CASES: (3)<br><br>CHORDS WEBS<br>MAX. FACTORED MAX. FACTORED MAX. FACTORED<br>MEMB. FORCE VERT. LOAD LC1 MAX. MEMB. FORCE MAX.<br>(LBS) (PLF) CSI (LC) UNBRAC (LBS) CSI (LC)<br>FR-TO FROM TO LENGTH FR-TO<br>1-2 0 / 23 -77.3 -77.3 0.10 (1) 10.00 15-3 -286 / 0 0.05 (1)<br>2-3 -1850 / 0 -77.3 -77.3 0.19 (1) 4.78 3-14 -95 / 0 0.04 (1)<br>3-4 -1795 / 0 -77.3 -77.3 0.18 (1) 4.84 14-4 0 / 154 0.04 (3)<br>4-5 -2028 / 0 -77.3 -77.3 0.44 (1) 4.31 4-13 0 / 554 0.12 (1)<br>5-6 -2028 / 0 -77.3 -77.3 0.44 (1) 4.31 13-5 -583 / 0 0.23 (1)<br>6-7 -1795 / 0 -77.3 -77.3 0.18 (1) 4.84 13-6 0 / 554 0.12 (1)<br>7-8 -1850 / 0 -77.3 -77.3 0.19 (1) 4.78 11-6 0 / 154 0.04 (3)<br>16-2 -1413 / 0 0.0 0.0 0.14 (1) 6.86 11-7 -95 / 0 0.04 (1)<br>9-8 -1308 / 0 0.0 0.0 0.13 (1) 7.06 10-7 -286 / 0 0.05 (1)<br>2-15 0 / 1703 0.38 (1)<br>10-8 0 / 1703 0.38 (1)<br>16-15 0 / 0 -17.5 -17.5 0.07 (3) 10.00<br>15-14 0 / 1667 -17.5 -17.5 0.33 (1) 10.00<br>14-13 0 / 1594 -17.5 -17.5 0.32 (1) 10.00<br>13-12 0 / 1594 -17.5 -17.5 0.32 (1) 10.00<br>12-11 0 / 1594 -17.5 -17.5 0.32 (1) 10.00<br>11-10 0 / 1667 -17.5 -17.5 0.33 (1) 10.00<br>10-9 0 / 0 -17.5 -17.5 0.07 (3) 10.00 |  |
| <b>DESIGN CRITERIA</b><br><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF<br><br><b>SPACING = 24.0 IN. C/C</b><br><br>LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12<br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>(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<br><br>ALLOWABLE DEFL.(LL)= L/360 (0.94")<br>CALCULATED VERT. DEFL.(LL) = L/ 999 (0.09")<br>ALLOWABLE DEFL.(TL)= L/360 (0.94")<br>CALCULATED VERT. DEFL.(TL) = L/ 999 (0.17")<br><br>CSI: TC=0.44 (5-6:1), BC=0.33 (14-15:1), WB=0.38 (8-10:1), SSI=0.23 (4-5:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10<br>COMP=1.10 SHEAR=1.10 TENS= 1.10<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR SECTION<br>(PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.89 (2) (INPUT = 0.90 )<br>JSI METAL= 0.50 (15) (INPUT = 1.00 ) |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |

LICENSED PROFESSIONAL ENGINEER

P. M. TREVISAN

100136551

March 13th, 2017

PROVINCE OF ONTARIO

RECEIVED

TOWN OF MILTON

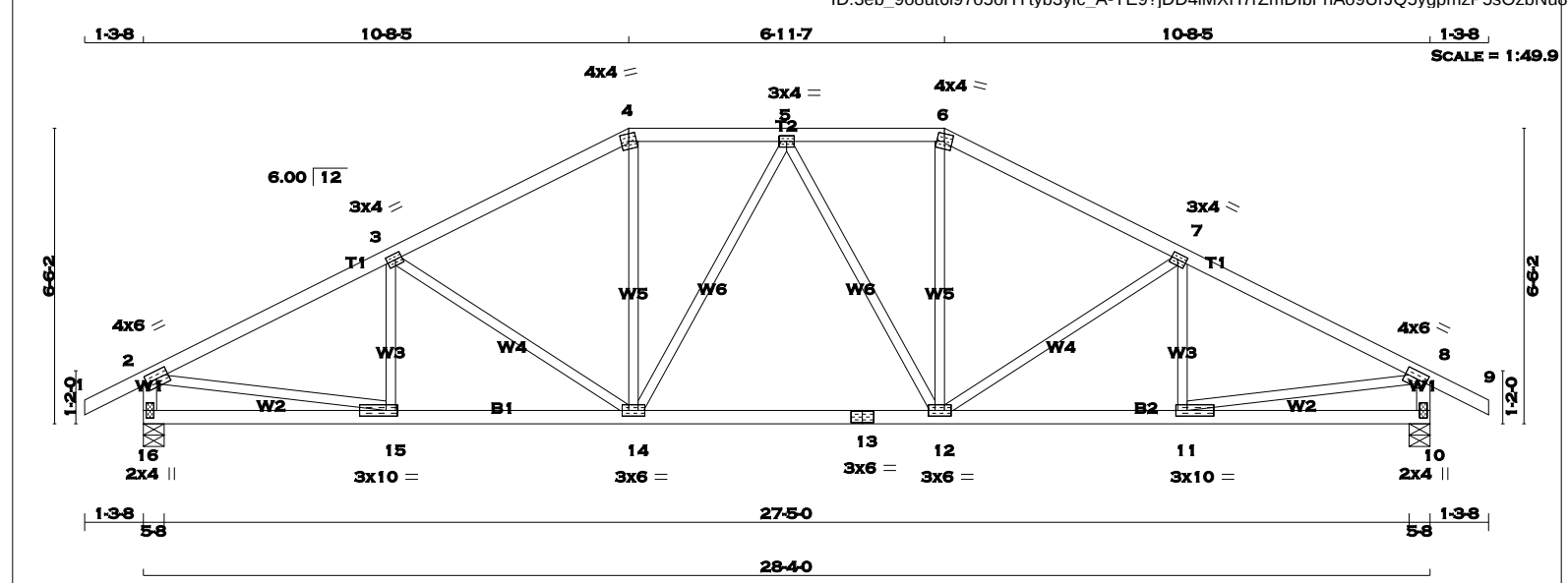
MAR 29, 2017

17-5010

BUILDING DIVISION

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.

KOTT



TOTAL WEIGHT = 117 lb  
[M][F]

| LUMBER                |      |        |        |
|-----------------------|------|--------|--------|
| N. L. G. A. RULES     |      |        |        |
| CHORDS                | SIZE | LUMBER | DESCR. |
| 1 - 4                 | 2x4  | DRY    | No.2   |
| 4 - 6                 | 2x4  | DRY    | No.2   |
| 6 - 9                 | 2x4  | DRY    | No.2   |
| 16 - 2                | 2x4  | DRY    | No.2   |
| 10 - 8                | 2x4  | DRY    | No.2   |
| 16 - 13               | 2x4  | DRY    | No.2   |
| 13 - 10               | 2x4  | DRY    | No.2   |
| 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 | 6.0  | 2.00 | 2.75 |
| 3                           | TMVW-t | MT20   | 3.0 | 4.0  | 1.50 | 1.75 |
| 4                           | TTW-m  | MT20   | 4.0 | 4.0  |      |      |
| 5                           | TMVW-t | MT20   | 3.0 | 4.0  |      |      |
| 6                           | TTW-m  | MT20   | 4.0 | 4.0  |      |      |
| 7                           | TMVW-t | MT20   | 3.0 | 4.0  | 1.50 | 1.75 |
| 8                           | TMVW-t | MT20   | 4.0 | 6.0  | 2.00 | 2.75 |
| 10                          | BMV1+p | MT20   | 2.0 | 4.0  |      |      |
| 11                          | BMVW-t | MT20   | 3.0 | 10.0 | 1.50 | 3.00 |
| 12                          | BMVW-t | MT20   | 3.0 | 6.0  |      |      |
| 13                          | BS-t   | MT20   | 3.0 | 6.0  |      |      |
| 14                          | BMVW-t | MT20   | 3.0 | 6.0  |      |      |
| 15                          | BMVW-t | MT20   | 3.0 | 10.0 | 1.50 | 3.00 |
| 16                          | BMV1+p | MT20   | 2.0 | 4.0  |      |      |

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                            | UPLIFT    | IN-SX     |
| 16       | 1449 | 0                       | 1449                            | 0         | 5-8       |
| 10       | 1449 | 0                       | 1449                            | 0         | 5-8       |

| UNFACTORED REACTIONS |           |     |     |           |           |      |       |
|----------------------|-----------|-----|-----|-----------|-----------|------|-------|
| JT                   | 1ST LCASE | MAX | MIN | COMPONENT | REACTIONS |      |       |
| 16                   | 1014      | 723 | 0   | LIVE      | PERM.LIVE | WIND | DEAD  |
| 10                   | 1014      | 723 | 0   | 0/0       | 0/0       | 0/0  | 291/0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 16, 10

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.55 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: (3) |                           |                                 |          |
|---------|---------------------------|---------------------------|---------------------------------|-----------------------|---------------------------|---------------------------------|----------|
| CHORDS  |                           | WEBS                      |                                 |                       |                           |                                 |          |
| MEMB.   | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (LBS) | MAX. FACTORED HORIZ. LOAD (LBS) | MEMB.                 | MAX. FACTORED FORCE (LBS) | MAX. FACTORED HORIZ. LOAD (LBS) |          |
| FR-TO   |                           | FROM                      | TO                              | FR-TO                 |                           | FROM                            | TO       |
| 1-2     | 0/23                      | -77.3                     | -77.3                           | 10.00                 | 15-3                      | -178/32                         | 0.04 (1) |
| 2-3     | -1913/0                   | -77.3                     | -77.3                           | 4.55                  | 3-14                      | -343/0                          | 0.26 (1) |
| 3-4     | -1638/0                   | -77.3                     | -77.3                           | 4.86                  | 14-4                      | 0/462                           | 0.10 (1) |
| 4-5     | -1453/0                   | -77.3                     | -77.3                           | 5.31                  | 14-5                      | -182/0                          | 0.17 (1) |
| 5-6     | -1453/0                   | -77.3                     | -77.3                           | 5.31                  | 5-12                      | -182/0                          | 0.17 (1) |
| 6-7     | -1638/0                   | -77.3                     | -77.3                           | 4.86                  | 12-6                      | 0/462                           | 0.10 (1) |
| 7-8     | -1913/0                   | -77.3                     | -77.3                           | 4.55                  | 12-7                      | -343/0                          | 0.26 (1) |
| 8-9     | 0/23                      | -77.3                     | -77.3                           | 10.00                 | 11-7                      | -178/32                         | 0.04 (1) |
| 16-2    | -1406/0                   | 0.0                       | 0.0                             | 6.87                  | 2-15                      | 0/1751                          | 0.39 (1) |
| 10-8    | -1406/0                   | 0.0                       | 0.0                             | 6.87                  | 11-8                      | 0/1751                          | 0.39 (1) |
| 16-15   | 0/0                       | -17.5                     | -17.5                           | 10.00                 |                           |                                 |          |
| 15-14   | 0/1730                    | -17.5                     | -17.5                           | 10.00                 |                           |                                 |          |
| 14-13   | 0/1539                    | -17.5                     | -17.5                           | 10.00                 |                           |                                 |          |
| 13-12   | 0/1539                    | -17.5                     | -17.5                           | 10.00                 |                           |                                 |          |
| 12-11   | 0/1730                    | -17.5                     | -17.5                           | 10.00                 |                           |                                 |          |
| 11-10   | 0/0                       | -17.5                     | -17.5                           | 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**

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 (0.94")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.08")  
ALLOWABLE DEFL.(TL)= L/360 (0.94")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.17")

CSI: TC=0.34 (2-3:1), BC=0.35 (14-15:1), WB=0.39 (8-11:1), SSI=0.18 (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) | SHEAR | SECTION |     |      |
| (PSI)       | (PLI)     | (PLI) | (PLI)   |     |      |
| MAX         | MIN       | MAX   | MIN     | MAX | MIN  |
| MT20        | 618       | 354   | 1667    | 822 | 2284 |

PLATE PLACEMENT TOL. = 0.250 inches

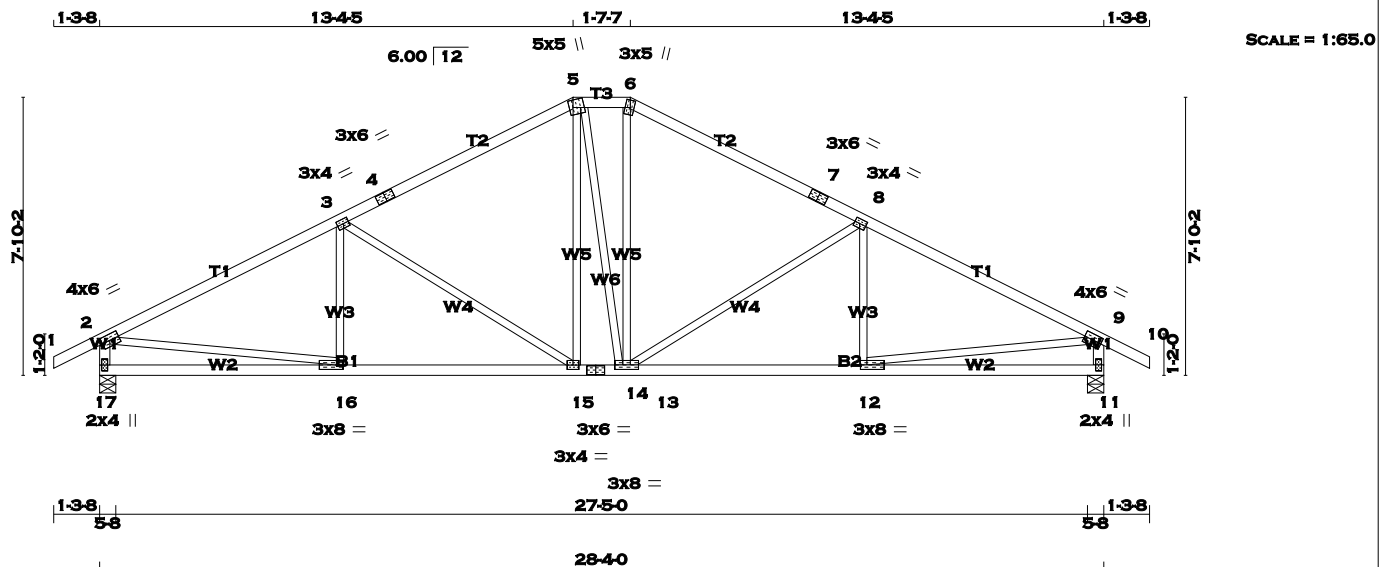
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (11) (INPUT = 0.90)  
JSI METAL= 0.51 (2) (INPUT = 1.00)

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BUILDING DIVISION

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.





TOTAL WEIGHT = 121 lb  
[M][F]

| LUMBER          |         | LUMBER | DESCR. |
|-----------------|---------|--------|--------|
| CHORDS          | SIZE    |        |        |
| 1 - 4           | 2x4 DRY | No.2   | SPF    |
| 4 - 5           | 2x4 DRY | No.2   | SPF    |
| 5 - 6           | 2x4 DRY | No.2   | SPF    |
| 6 - 7           | 2x4 DRY | No.2   | SPF    |
| 7 - 10          | 2x4 DRY | No.2   | SPF    |
| 17 - 2          | 2x4 DRY | No.2   | SPF    |
| 11 - 9          | 2x4 DRY | No.2   | SPF    |
| 17 - 14         | 2x4 DRY | No.2   | SPF    |
| 14 - 11         | 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 | 6.0 | 2.00 2.75 |
| 3                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 4                           | TS-t   | MT20   | 3.0 | 6.0 |           |
| 5                           | TTWW+m | MT20   | 5.0 | 5.0 | 2.50 1.25 |
| 6                           | TTW+m  | MT20   | 3.0 | 5.0 | 2.50 1.25 |
| 7                           | TS-t   | MT20   | 3.0 | 6.0 |           |
| 8                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 9                           | TMVW-t | MT20   | 4.0 | 6.0 | 2.00 2.75 |
| 11                          | BMV1+p | MT20   | 2.0 | 4.0 |           |
| 12                          | BMVW-t | MT20   | 3.0 | 8.0 | 1.50 2.25 |
| 13                          | BMVW-t | MT20   | 3.0 | 8.0 |           |
| 14                          | BS-t   | MT20   | 3.0 | 6.0 |           |
| 15                          | BMVW-t | MT20   | 3.0 | 4.0 |           |
| 16                          | BMVW-t | MT20   | 3.0 | 8.0 | 1.50 2.25 |
| 17                          | BMV1+p | MT20   | 2.0 | 4.0 |           |

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       |      | MAXIMUM FACTORED |      | INPUT |       | REQRD |       |
|----------|------|----------------|------|------------------|------|-------|-------|-------|-------|
| JT       | VERT | GROSS REACTION | HORZ | GROSS REACTION   | HORZ | BRG   | IN-SX | BRG   | IN-SX |
| 17       | 1449 | 0              | 1449 | 0                | 0    | 5-8   | 5-8   | 5-8   | 5-8   |
| 11       | 1449 | 0              | 1449 | 0                | 0    | 5-8   | 5-8   | 5-8   | 5-8   |

| UNFACTORED REACTIONS |           |          |           |           |       |         |       |
|----------------------|-----------|----------|-----------|-----------|-------|---------|-------|
| JT                   | 1ST LCASE | MAX/MIN. | COMPONENT | REACTIONS |       |         |       |
| 17                   | 1014      | 723 / 0  | LIVE      | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 11                   | 1014      | 723 / 0  | 0 / 0     | 0 / 0     | 0 / 0 | 291 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 17, 11

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.28 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

| LOADING |                           |                           |                | TOTAL LOAD CASES: (3) |                           |                           |               |
|---------|---------------------------|---------------------------|----------------|-----------------------|---------------------------|---------------------------|---------------|
| CHORDS  |                           | WEBS                      |                | CHORDS                |                           | WEBS                      |               |
| MEMB.   | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC)  | MEMB.                 | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC) |
| FR-TO   |                           | FROM                      | TO             | FR-TO                 |                           | FROM                      | TO            |
| 1-2     | 0 / 23                    | -77.3                     | -77.3 0.10 (1) | 10.00                 | 16-3                      | -88 / 88                  | 0.03 (3)      |
| 2-3     | -1924 / 0                 | -77.3                     | -77.3 0.55 (1) | 4.28                  | 3-15                      | -579 / 0                  | 0.75 (1)      |
| 3-4     | -1434 / 0                 | -77.3                     | -77.3 0.49 (1) | 4.87                  | 15-5                      | 0 / 364                   | 0.08 (1)      |
| 4-5     | -1434 / 0                 | -77.3                     | -77.3 0.49 (1) | 4.87                  | 5-13                      | 0 / 12                    | 0.00 (1)      |
| 5-6     | -1265 / 0                 | -77.3                     | -77.3 0.04 (1) | 5.69                  | 13-6                      | 0 / 378                   | 0.08 (1)      |
| 6-7     | -1437 / 0                 | -77.3                     | -77.3 0.49 (1) | 4.87                  | 13-8                      | -575 / 0                  | 0.75 (1)      |
| 7-8     | -1437 / 0                 | -77.3                     | -77.3 0.49 (1) | 4.87                  | 12-8                      | -91 / 87                  | 0.03 (3)      |
| 8-9     | -1923 / 0                 | -77.3                     | -77.3 0.55 (1) | 4.28                  | 2-16                      | 0 / 1759                  | 0.40 (1)      |
| 9-10    | 0 / 23                    | -77.3                     | -77.3 0.10 (1) | 10.00                 | 12-9                      | 0 / 1758                  | 0.40 (1)      |
| 17-2    | -1400 / 0                 | 0.0                       | 0.0 0.14 (1)   | 6.88                  |                           |                           |               |
| 11-9    | -1399 / 0                 | 0.0                       | 0.0 0.14 (1)   | 6.88                  |                           |                           |               |
| 17-16   | 0 / 0                     | -17.5                     | -17.5 0.20 (3) | 10.00                 |                           |                           |               |
| 16-15   | 0 / 1745                  | -17.5                     | -17.5 0.38 (1) | 10.00                 |                           |                           |               |
| 15-14   | 0 / 1262                  | -17.5                     | -17.5 0.28 (1) | 10.00                 |                           |                           |               |
| 14-13   | 0 / 1262                  | -17.5                     | -17.5 0.28 (1) | 10.00                 |                           |                           |               |
| 13-12   | 0 / 1744                  | -17.5                     | -17.5 0.37 (1) | 10.00                 |                           |                           |               |
| 12-11   | 0 / 0                     | -17.5                     | -17.5 0.19 (3) | 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**

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 (0.94")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.09")  
ALLOWABLE DEFL.(TL)= L/360 (0.94")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.17")

CSI: TC=0.55 (2-3:1), BC=0.38 (15-16:1), WB=0.75 (3-15:1), SSI=0.23 (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) SHEAR SECTION (PSI) (PLI) (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.

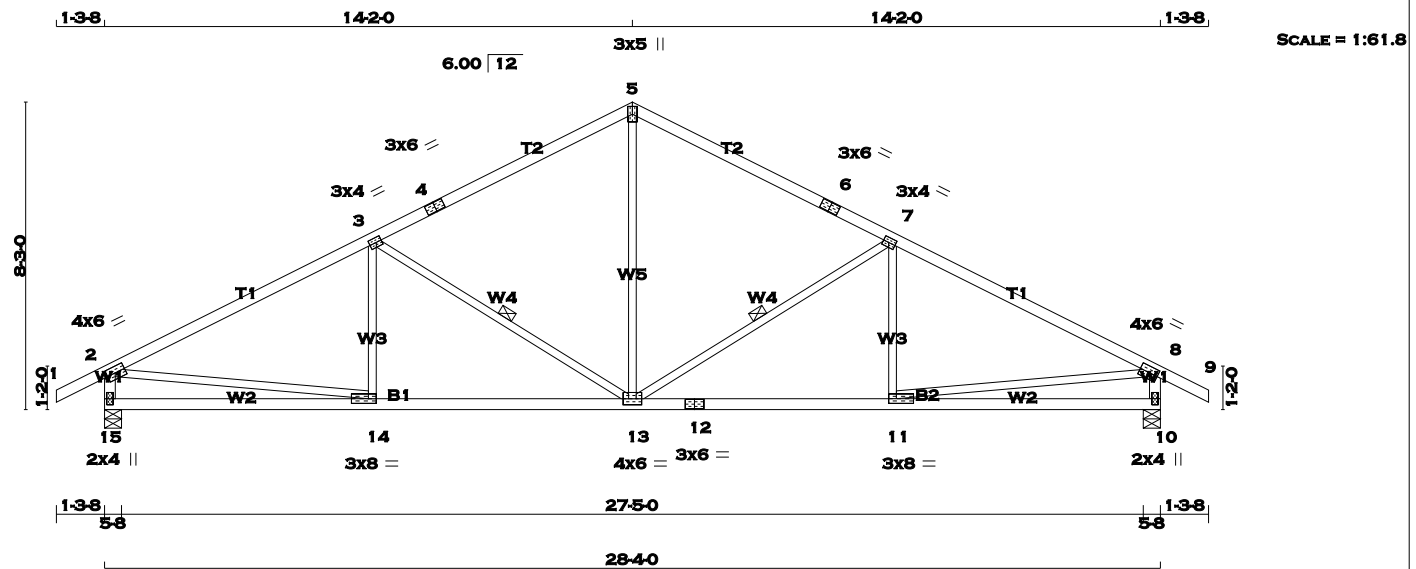
JSI GRIP= 0.89 (16) (INPUT = 0.90 )  
JSI METAL= 0.52 (2) (INPUT = 1.00 )



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TOTAL WEIGHT = 3 X 111 = 332 lb  
[M][F]

| LUMBER                |      |        |        |     |
|-----------------------|------|--------|--------|-----|
| N. L. G. A. RULES     |      |        |        |     |
| CHORDS                | SIZE | LUMBER | DESCR. |     |
| 1 - 4                 | 2x4  | DRY    | No.2   | SPF |
| 4 - 5                 | 2x4  | DRY    | No.2   | SPF |
| 5 - 6                 | 2x4  | DRY    | No.2   | SPF |
| 6 - 9                 | 2x4  | DRY    | No.2   | SPF |
| 15 - 2                | 2x4  | DRY    | No.2   | SPF |
| 10 - 8                | 2x4  | DRY    | No.2   | SPF |
| 15 - 12               | 2x4  | DRY    | No.2   | SPF |
| 12 - 10               | 2x4  | DRY    | No.2   | SPF |
| ALL WEBS              | 2x3  | DRY    | No.2   | SPF |
| EXCEPT                |      |        |        |     |
| DRY: SEASONED LUMBER. |      |        |        |     |

| PLATES (table is in inches) |        |        |     |     |      |      |
|-----------------------------|--------|--------|-----|-----|------|------|
| JT                          | TYPE   | PLATES | W   | LEN | Y    | X    |
| 2                           | TMVW-t | MT20   | 4.0 | 6.0 | 2.00 | 2.75 |
| 3                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 4                           | TS-t   | MT20   | 3.0 | 6.0 |      |      |
| 5                           | TTW+p  | MT20   | 3.0 | 5.0 |      |      |
| 6                           | TS-t   | MT20   | 3.0 | 6.0 |      |      |
| 7                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 8                           | TMVW-t | MT20   | 4.0 | 6.0 | 2.00 | 2.75 |
| 10                          | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 11                          | BMVW-t | MT20   | 3.0 | 8.0 | 1.50 | 2.50 |
| 12                          | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| 13                          | BMVW-t | MT20   | 4.0 | 6.0 |      |      |
| 14                          | BMVW-t | MT20   | 3.0 | 8.0 | 1.50 | 2.50 |
| 15                          | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MIITEK 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    |
| 15       | 1449 | 0                       | 1449                            | 0         | 0         |
| 10       | 1449 | 0                       | 1449                            | 0         | 0         |

| UNFACTORED REACTIONS |          | 1ST LCASE | MAX/MIN. COMPONENT REACTIONS |           |       |         |       |  |
|----------------------|----------|-----------|------------------------------|-----------|-------|---------|-------|--|
| JT                   | COMBINED | SNOW      | LIVE                         | PERM.LIVE | WIND  | DEAD    | SOIL  |  |
| 15                   | 1014     | 723 / 0   | 0 / 0                        | 0 / 0     | 0 / 0 | 291 / 0 | 0 / 0 |  |
| 10                   | 1014     | 723 / 0   | 0 / 0                        | 0 / 0     | 0 / 0 | 291 / 0 | 0 / 0 |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 15, 10

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.17 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 7-13, 3-13. DBS = 20-0-0. CBF = 79 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

| CHORDS |                           |                           |                  | WEBS                 |       |                           |              |
|--------|---------------------------|---------------------------|------------------|----------------------|-------|---------------------------|--------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 CSI (LC) | MAX. UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
| FR-TO  |                           | FROM TO                   |                  |                      | FR-TO |                           |              |
| 1-2    | 0 / 23                    | -77.3 -77.3               | 0.10 (1)         | 10.00                | 13-5  | 0 / 801                   | 0.18 (1)     |
| 2-3    | -1917 / 0                 | -77.3 -77.3               | 0.62 (1)         | 4.17                 | 13-7  | -633 / 0                  | 0.30 (1)     |
| 3-4    | -1379 / 0                 | -77.3 -77.3               | 0.55 (1)         | 4.84                 | 11-7  | -72 / 96                  | 0.03 (3)     |
| 4-5    | -1379 / 0                 | -77.3 -77.3               | 0.55 (1)         | 4.84                 | 3-13  | -633 / 0                  | 0.30 (1)     |
| 5-6    | -1379 / 0                 | -77.3 -77.3               | 0.55 (1)         | 4.84                 | 14-3  | -72 / 96                  | 0.03 (3)     |
| 6-7    | -1379 / 0                 | -77.3 -77.3               | 0.55 (1)         | 4.84                 | 2-14  | 0 / 1753                  | 0.39 (1)     |
| 7-8    | -1917 / 0                 | -77.3 -77.3               | 0.62 (1)         | 4.17                 | 11-8  | 0 / 1753                  | 0.39 (1)     |
| 8-9    | 0 / 23                    | -77.3 -77.3               | 0.10 (1)         | 10.00                |       |                           |              |
| 15-2   | -1396 / 0                 | 0.0 0.0                   | 0.14 (1)         | 6.89                 |       |                           |              |
| 10-8   | -1396 / 0                 | 0.0 0.0                   | 0.14 (1)         | 6.89                 |       |                           |              |
| 15-14  | 0 / 0                     | -17.5 -17.5               | 0.21 (3)         | 10.00                |       |                           |              |
| 14-13  | 0 / 1741                  | -17.5 -17.5               | 0.38 (1)         | 10.00                |       |                           |              |
| 13-12  | 0 / 1741                  | -17.5 -17.5               | 0.38 (1)         | 10.00                |       |                           |              |
| 12-11  | 0 / 1741                  | -17.5 -17.5               | 0.38 (1)         | 10.00                |       |                           |              |
| 11-10  | 0 / 0                     | -17.5 -17.5               | 0.21 (3)         | 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

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 (0.94")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.09")  
ALLOWABLE DEFL.(TL)= L/360 (0.94")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.17")

CSI: TC=0.62 (7-8:1), BC=0.38 (11-13:1), WB=0.39 (8-11:1), SSI=0.24 (7-8:1)

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) SHEAR SECTION  
(PSI) (PLI) (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.

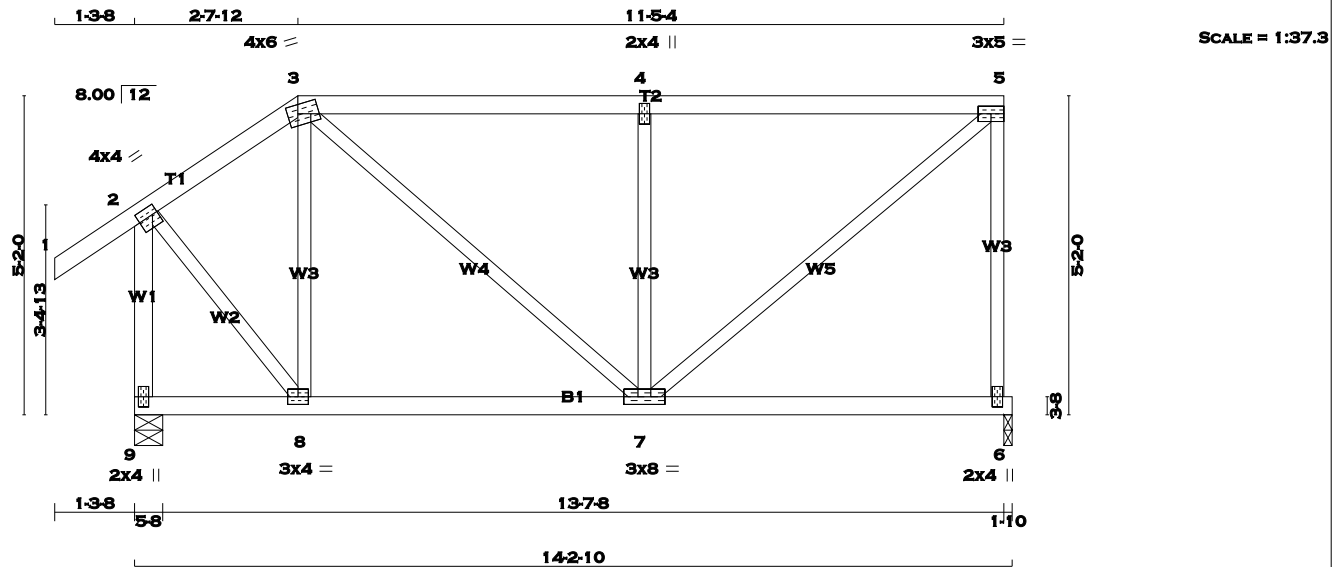
JSI GRIP= 0.90 (14) (INPUT = 0.90)  
JSI METAL= 0.52 (8) (INPUT = 1.00)



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TOTAL WEIGHT = 2 X 64 = 128 lb

| <b>LUMBER</b>            |             |     |               |               |
|--------------------------|-------------|-----|---------------|---------------|
| <b>N. L. G. A. RULES</b> |             |     |               |               |
| <b>CHORDS</b>            | <b>SIZE</b> |     | <b>LUMBER</b> | <b>DESCR.</b> |
| 1 - 3                    | 2x4         | DRY | No.2          | SPF           |
| 3 - 5                    | 2x4         | DRY | No.2          | SPF           |
| 6 - 5                    | 2x3         | DRY | No.2          | SPF           |
| 9 - 2                    | 2x4         | DRY | No.2          | SPF           |
| 9 - 6                    | 2x4         | DRY | No.2          | SPF           |

ALL WEBS 2x3 DRY No.2 SPF

DRY: SEASONED LUMBER.

| <b>PLATES (table is in inches)</b> |         |        |     |     |           |
|------------------------------------|---------|--------|-----|-----|-----------|
| JT                                 | TYPE    | PLATES | W   | LEN | Y X       |
| 2                                  | TMVW-t  | MT20   | 4.0 | 4.0 | 1.75 1.00 |
| 3                                  | TTWW-m  | MT20   | 4.0 | 6.0 | 1.75 2.00 |
| 4                                  | TMW-w   | MT20   | 2.0 | 4.0 |           |
| 5                                  | TMVW-t  | MT20   | 3.0 | 5.0 |           |
| 6                                  | BMV1+p  | MT20   | 2.0 | 4.0 |           |
| 7                                  | BMWWW-t | MT20   | 3.0 | 8.0 |           |
| 8                                  | BMWW-t  | MT20   | 3.0 | 4.0 |           |
| 9                                  | BMV1+p  | MT20   | 2.0 | 4.0 |           |

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**

| JT | FACTORED<br>GROSS REACTION |      | MAXIMUM FACTORED<br>GROSS REACTION |      |        | INPUT<br>BRG | REQ'D<br>BRG |
|----|----------------------------|------|------------------------------------|------|--------|--------------|--------------|
|    | VERT                       | HORZ | DOWN                               | HORZ | UPLIFT | IN-SX        | IN-SX        |
| 6  | 668                        | 0    | 668                                | 0    | 0      | 1-10         | 1-10         |
| 9  | 774                        | 0    | 774                                | 0    | 0      | 5-8          | 5-8          |

### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS |       |           |       |         | SOIL  |
|----|-----------|-------------------------------|-------|-----------|-------|---------|-------|
|    | COMBINED  | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    |       |
| 6  | 469       | 328 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 141 / 0 | 0 / 0 |
| 9  | 541       | 392 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 149 / 0 | 0 / 0 |

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

## 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: (3)**

| CHORDS |                           |                           |                  | WEBS               |       |                           |                       |          |
|--------|---------------------------|---------------------------|------------------|--------------------|-------|---------------------------|-----------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED MAX CSI (LC) |          |
| FR-TO  |                           | FROM TO                   |                  |                    | FR-TO |                           |                       |          |
| 1-2    | 0 / 29                    | -77.3                     | -77.3            | 0.10 (1)           | 10.00 | 8-3                       | -266 / 0              | 0.11 (1) |
| 2-3    | -372 / 0                  | -77.3                     | -77.3            | 0.09 (1)           | 6.25  | 3-7                       | 0 / 316               | 0.07 (1) |
| 3-4    | -541 / 0                  | -77.3                     | -77.3            | 0.43 (1)           | 6.25  | 7-4                       | -548 / 0              | 0.22 (1) |
| 4-5    | -542 / 0                  | -77.3                     | -77.3            | 0.44 (1)           | 6.25  | 7-5                       | 0 / 706               | 0.16 (1) |
| 6-5    | -626 / 0                  | 0.0                       | 0.0              | 0.40 (1)           | 7.81  | 2-8                       | 0 / 463               | 0.10 (1) |
| 9-2    | -761 / 0                  | 0.0                       | 0.0              | 0.15 (1)           | 7.81  |                           |                       |          |
| 9-8    | 0 / 0                     | -17.5                     | -17.5            | 0.07 (3)           | 10.00 |                           |                       |          |
| 8-7    | 0 / 303                   | -17.5                     | -17.5            | 0.17 (3)           | 10.00 |                           |                       |          |
| 7-6    | 0 / 0                     | -17.5                     | -17.5            | 0.14 (3)           | 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

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 (0.47")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.47")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

CSI: TC=0.44 (4-5:1), BC=0.17 (7-8:3), WB=0.22 (4-7:1), SSI=0.22 (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) |     | SHEAR |     | SECTION |      |
|             | (PSI)     |     | (PLI) |     | (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.

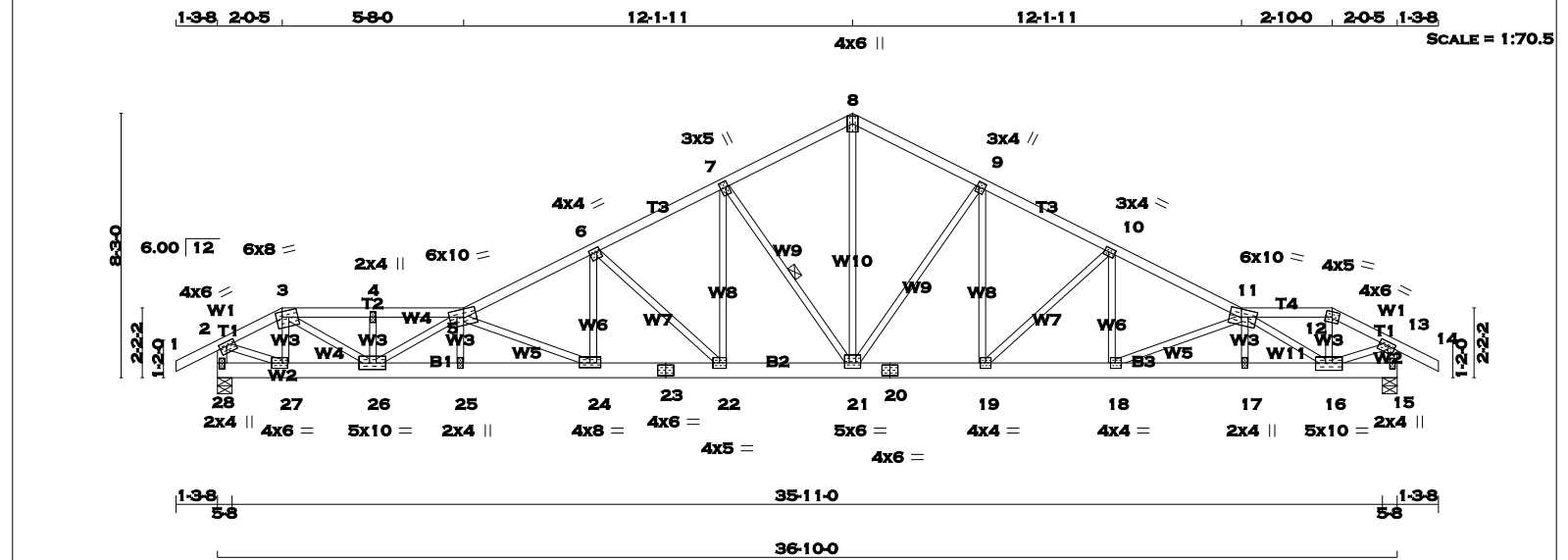
JSI GRIP= 0.82 (5) (INPUT = 0.90 )  
JSI METAL= 0.18 (2) (INPUT = 1.00 )



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



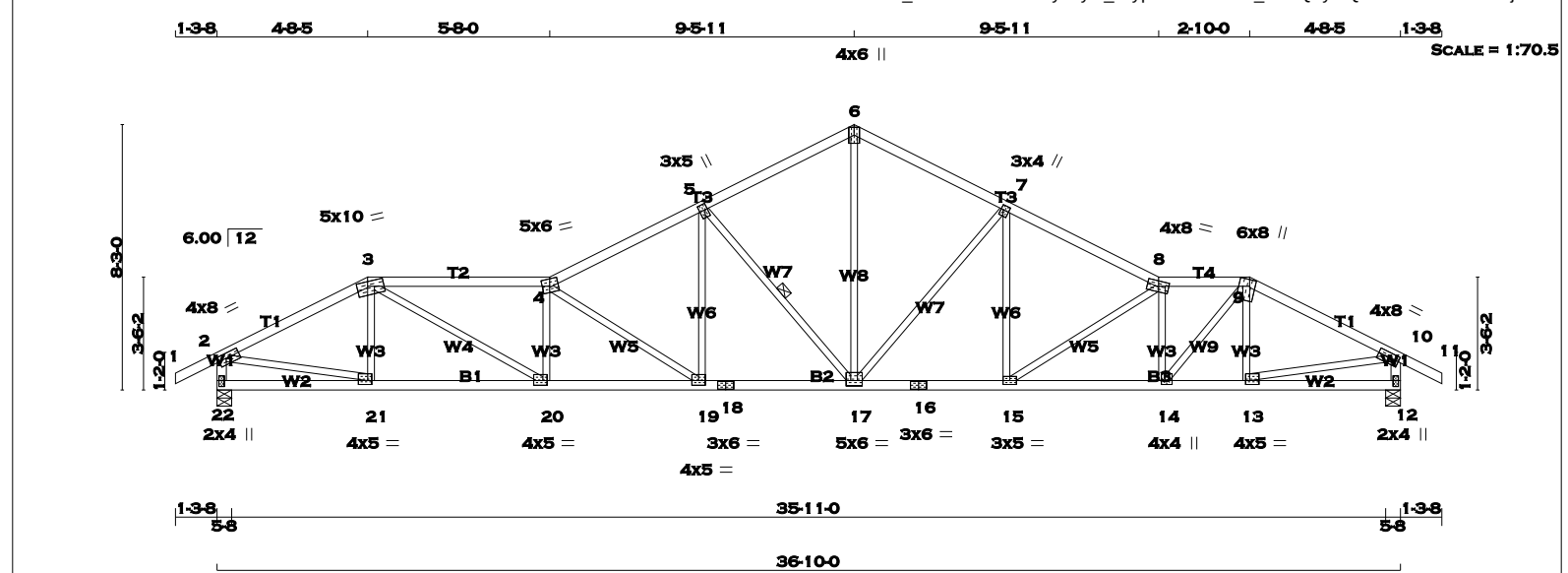


|                                                                                                                                                                                                                                                                                                                                                                                       |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |
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| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE<br>1 - 3 2x4 DRY No.2<br>3 - 5 2x4 DRY No.2<br>5 - 8 2x4 DRY No.2<br>8 - 11 2x4 DRY No.2<br>11 - 12 2x4 DRY No.2<br>12 - 14 2x4 DRY No.2<br>28 - 2 2x4 DRY No.2<br>15 - 13 2x4 DRY No.2<br>28 - 23 2x6 DRY No.2<br>23 - 20 2x6 DRY No.2<br>20 - 15 2x6 DRY No.2<br><br>ALL WEBS 2x3 DRY No.2<br>EXCEPT<br><br>DRY: SEASONED LUMBER. |  |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br>FACTORED GROSS REACTION<br>JT VERT HORZ<br>28 1852 0<br>15 1852 0<br><br>MAXIMUM FACTORED GROSS REACTION<br>DOWN HORZ UPLIFT IN-SX<br>28 1852 0 0 5-8<br>15 1852 0 0 5-8<br><br>INPUT BRG<br>28 5-8<br>15 5-8<br><br>REQRD BRG<br>28 5-8<br>15 5-8<br><br><b>UNFACTORED REACTIONS</b><br>1ST LCASE MAX/MIN. COMPONENT REACTIONS<br>JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL<br>28 1297 921 / 0 0 / 0 0 / 0 376 / 0 0 / 0<br>15 1297 921 / 0 0 / 0 0 / 0 376 / 0 0 / 0<br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 28, 15<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.25 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.<br><br>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-21. DBS = 12-0-0 . CBF = 88 LBS.<br><br>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.<br><br>END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW<br><br><b>LOADING</b><br>TOTAL LOAD CASES: (3)<br><br>CHORDS<br>MEMB. MAX. FACTORED FORCE (LBS) FACTORED VERT. LOAD (PLF) LC1 MAX. UNBRAC LENGTH FR-TO<br>FR-TO<br>1-2 0 / 23 -77.3 -77.3 0.10 (1) 10.00 27-3 -568 / 0 0.08 (1)<br>2-3 -2158 / 0 -77.3 -77.3 0.09 (1) 4.58 3-26 0 / 2516 0.57 (1)<br>3-4 -4019 / 0 -77.3 -77.3 0.25 (1) 3.36 26-4 -211 / 0 0.03 (1)<br>4-5 -4019 / 0 -77.3 -77.3 0.25 (1) 3.36 26-5 -2055 / 0 0.42 (1)<br>5-6 -4121 / 0 -77.3 -77.3 0.36 (1) 3.25 25-5 -72 / 28 0.01 (1)<br>6-7 -3031 / 0 -77.3 -77.3 0.24 (1) 3.85 5-24 -2252 / 0 0.75 (1)<br>7-8 -2299 / 0 -77.3 -77.3 0.21 (1) 4.36 24-6 0 / 1078 0.24 (1)<br>8-9 -2299 / 0 -77.3 -77.3 0.21 (1) 4.36 6-22 -1358 / 0 0.69 (1)<br>9-10 -2824 / 0 -77.3 -77.3 0.22 (1) 3.99 22-7 0 / 952 0.21 (1)<br>10-11 -3484 / 0 -77.3 -77.3 0.29 (1) 3.57 7-21 -1169 / 0 0.39 (1)<br>11-12 -1956 / 0 -77.3 -77.3 0.12 (1) 4.74 21-8 0 / 1787 0.40 (1)<br>12-13 -2140 / 0 -77.3 -77.3 0.09 (1) 4.60 21-9 -843 / 0 0.79 (1)<br>13-14 0 / 23 -77.3 -77.3 0.10 (1) 10.00 19-9 0 / 593 0.13 (1)<br>28-2 -1856 / 0 0.0 0.0 0.19 (1) 6.15 19-10 -829 / 0 0.42 (1)<br>15-13 -1842 / 0 0.0 0.0 0.18 (1) 6.17 18-10 0 / 523 0.12 (1)<br>18-11 -927 / 0 0.31 (1)<br>17-11 -95 / 22 0.01 (1)<br>11-16 -2412 / 0 0.48 (1)<br>16-12 0 / 777 0.17 (1)<br>2-27 0 / 2050 0.46 (1)<br>16-13 0 / 2034 0.46 (1)<br><br>WEBS<br>MEMB. MAX. FACTORED FORCE (LBS) MAX. UNBRAC LENGTH FR-TO<br>FR-TO<br>28-27 0 / 0 -17.5 -17.5 0.03 (1) 10.00 17-11 -95 / 22 0.01 (1)<br>27-26 0 / 1894 -17.5 -17.5 0.32 (1) 10.00 11-16 -2412 / 0 0.48 (1)<br>26-25 0 / 5755 -17.5 -17.5 0.88 (1) 10.00 16-12 0 / 777 0.17 (1)<br>25-24 0 / 5759 -17.5 -17.5 0.88 (1) 10.00 2-27 0 / 2050 0.46 (1)<br>24-23 0 / 3700 -17.5 -17.5 0.48 (1) 10.00 16-13 0 / 2034 0.46 (1)<br>23-22 0 / 3700 -17.5 -17.5 0.48 (1) 10.00<br>22-21 0 / 2711 -17.5 -17.5 0.37 (1) 10.00<br>21-20 0 / 2526 -17.5 -17.5 0.35 (1) 10.00<br>20-19 0 / 2526 -17.5 -17.5 0.35 (1) 10.00<br>19-18 0 / 3129 -17.5 -17.5 0.41 (1) 10.00<br>18-17 0 / 3977 -17.5 -17.5 0.62 (1) 10.00<br>17-16 0 / 3977 -17.5 -17.5 0.62 (1) 10.00<br>16-15 0 / 3977 -17.5 -17.5 0.62 (1) 10.00<br>15-14 0 / 3977 -17.5 -17.5 0.62 (1) 10.00<br>14-13 0 / 3977 -17.5 -17.5 0.62 (1) 10.00<br>13-12 0 / 3977 -17.5 -17.5 0.62 (1) 10.00<br>12-11 0 / 3977 -17.5 -17.5 0.62 (1) 10.00<br>11-10 0 / 3977 -17.5 -17.5 0.62 (1) 10.00<br>10-9 0 / 3977 -17.5 -17.5 0.62 (1) 10.00<br>9-8 0 / 3977 -17.5 -17.5 0.62 (1) 10.00<br>8-7 0 / 3977 -17.5 -17.5 0.62 (1) 10.00<br>7-6 0 / 3977 -17.5 -17.5 0.62 (1) 10.00<br>6-5 0 / 3977 -17.5 -17.5 0.62 (1) 10.00<br>5-4 0 / 3977 -17.5 -17.5 0.62 (1) 10.00<br>4-3 0 / 3977 -17.5 -17.5 0.62 (1) 10.00<br>3-2 0 / 3977 -17.5 -17.5 0.62 (1) 10.00<br>2-1 0 / 3977 -17.5 -17.5 0.62 (1) 10.00<br>1-0 0 / 3977 -17.5 -17.5 0.62 (1) 10.00 |  |  | <b>DESIGN CRITERIA</b><br><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF<br><br><b>SPACING = 24.0 IN. C/C</b><br><br>LOADING IN ALL FLAT SECTIONS BASED ON A SLOPE OF 6.00/12<br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>(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<br><br>ALLOWABLE DEFL.(LL)= L/360 (1.2")<br>CALCULATED VERT. DEFL.(LL) = L/999 (0.32")<br>ALLOWABLE DEFL.(TL)= L/360 (1.2")<br>CALCULATED VERT. DEFL.(TL) = L/790 (0.56")<br><br>CSI: TC=0.36 (5-6-1), BC=0.88 (24-25-1), WB=0.79 (9-21-1), SSI=0.13 (10-11-1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10<br>COMP=1.10 SHEAR=1.10 TENS= 1.10<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.90 (7) (INPUT = 0.90 )<br>JSI METAL= 0.98 (5) (INPUT = 1.00 ) |  |  |
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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.



TOTAL WEIGHT = 153 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 |
| 6 - 8                 | 2x4  | DRY    | No.2   | SPF |
| 8 - 9                 | 2x4  | DRY    | No.2   | SPF |
| 9 - 11                | 2x4  | DRY    | No.2   | SPF |
| 22 - 2                | 2x4  | DRY    | No.2   | SPF |
| 12 - 10               | 2x4  | DRY    | No.2   | SPF |
| 22 - 18               | 2x4  | DRY    | No.2   | SPF |
| 18 - 16               | 2x4  | DRY    | No.2   | SPF |
| 16 - 12               | 2x4  | DRY    | No.2   | SPF |
| ALL WEBS              | 2x3  | DRY    | No.2   | SPF |
| EXCEPT                |      |        |        |     |
| DRY: SEASONED LUMBER. |      |        |        |     |

| PLATES (table is in inches)                                                      |         |        |     |      |           |
|----------------------------------------------------------------------------------|---------|--------|-----|------|-----------|
| JT                                                                               | TYPE    | PLATES | W   | LEN  | Y X       |
| 2                                                                                | TMVW-t  | MT20   | 4.0 | 8.0  | 1.75 3.00 |
| 3                                                                                | TTWW-m  | MT20   | 5.0 | 10.0 | 1.75 4.00 |
| 4                                                                                | TTWW-m  | MT20   | 5.0 | 6.0  | 2.75 2.75 |
| 5                                                                                | TMWW+t  | MT20   | 3.0 | 5.0  | 2.25 0.75 |
| 6                                                                                | TTW+p   | MT20   | 4.0 | 6.0  | Edge      |
| 7                                                                                | TMWW+t  | MT20   | 3.0 | 4.0  | 1.75 0.75 |
| 8                                                                                | TTWW-m  | MT20   | 4.0 | 8.0  | 2.00 3.75 |
| 9                                                                                | TTWW+m  | MT20   | 6.0 | 8.0  | 2.50 2.00 |
| 10                                                                               | TMVW-t  | MT20   | 4.0 | 8.0  | 1.75 3.00 |
| 12                                                                               | BMV1+p  | MT20   | 2.0 | 4.0  | 2.25 1.00 |
| 13                                                                               | BMWW-t  | MT20   | 4.0 | 5.0  | 1.50 1.50 |
| 14                                                                               | BMWW+t  | MT20   | 4.0 | 4.0  | 1.50 1.50 |
| 15                                                                               | BMWW-t  | MT20   | 3.0 | 5.0  |           |
| 16                                                                               | BS-t    | MT20   | 3.0 | 6.0  |           |
| 17                                                                               | BMWWW-t | MT20   | 5.0 | 6.0  | 2.00 3.00 |
| 18                                                                               | BS-t    | MT20   | 3.0 | 6.0  |           |
| 19                                                                               | BMWW-t  | MT20   | 4.0 | 5.0  | 1.75 2.50 |
| 20                                                                               | BMWW-t  | MT20   | 4.0 | 5.0  | 1.75 1.50 |
| 21                                                                               | BMWW-t  | MT20   | 4.0 | 5.0  | 1.50 1.50 |
| 22                                                                               | BMV1+p  | MT20   | 2.0 | 4.0  | 2.25 1.00 |
| 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. |         |        |     |      |           |



| DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER |      |                         |      |                                 |      |           |       |
|-----------------------------------------------------------------------------------------------|------|-------------------------|------|---------------------------------|------|-----------|-------|
| BEARINGS                                                                                      |      |                         |      |                                 |      |           |       |
|                                                                                               |      | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       |
| JT                                                                                            |      | VERT                    | HORZ | DOWN                            | HORZ | IN-SX     | IN-SX |
| 22                                                                                            | 1852 | 0                       | 1852 | 0                               | 0    | 5-8       | 5-8   |
| 12                                                                                            | 1852 | 0                       | 1852 | 0                               | 0    | 5-8       | 5-8   |

| UNFACTORED REACTIONS |      |                    |   |                |           |                     |       |
|----------------------|------|--------------------|---|----------------|-----------|---------------------|-------|
|                      |      | 1ST LCASE COMBINED |   | MAX./MIN. SNOW |           | COMPONENT REACTIONS |       |
| JT                   |      |                    |   | LIVE           | PERM.LIVE | WIND                | DEAD  |
| 22                   | 1297 | 921                | 0 | 0/0            | 0/0       | 0/0                 | 376/0 |
| 12                   | 1297 | 921                | 0 | 0/0            | 0/0       | 0/0                 | 376/0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 22, 12

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.07 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 5-17. DBS = 10-0-0 . CBF = 78 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

| CHORDS |         |                           |                           | WEBS                          |       |       |                           |
|--------|---------|---------------------------|---------------------------|-------------------------------|-------|-------|---------------------------|
| MEMB.  |         | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 MAX. UNBRACED LENGTH | MEMB. |       | MAX. FACTORED FORCE (LBS) |
| FR-TO  |         |                           | FROM TO                   |                               | FR-TO |       |                           |
| 1-2    | 0/23    | -77.3                     | -77.3                     | 0.10 (1)                      | 10.00 | 21-3  | -294/0                    |
| 2-3    | -2520/0 | -77.3                     | -77.3                     | 0.31 (1)                      | 4.09  | 3-20  | 0/2046                    |
| 3-4    | -4015/0 | -77.3                     | -77.3                     | 0.58 (1)                      | 3.07  | 20-4  | -949/0                    |
| 4-5    | -3145/0 | -77.3                     | -77.3                     | 0.35 (1)                      | 3.68  | 4-19  | -1467/0                   |
| 5-6    | -2276/0 | -77.3                     | -77.3                     | 0.28 (1)                      | 4.30  | 19-5  | 0/908                     |
| 6-7    | -2275/0 | -77.3                     | -77.3                     | 0.28 (1)                      | 4.30  | 5-17  | -1255/0                   |
| 7-8    | -2891/0 | -77.3                     | -77.3                     | 0.33 (1)                      | 3.84  | 17-6  | 0/1736                    |
| 8-9    | -3215/0 | -77.3                     | -77.3                     | 0.19 (1)                      | 3.78  | 17-7  | -904/0                    |
| 9-10   | -2511/0 | -77.3                     | -77.3                     | 0.31 (1)                      | 4.10  | 15-7  | 0/527                     |
| 10-11  | 0/23    | -77.3                     | -77.3                     | 0.10 (1)                      | 10.00 | 15-8  | -782/0                    |
| 22-2   | -1820/0 | 0.0                       | 0.0                       | 0.18 (1)                      | 6.20  | 14-8  | -1110/0                   |
| 12-10  | -1814/0 | 0.0                       | 0.0                       | 0.18 (1)                      | 6.21  | 14-9  | 0/1515                    |
|        |         |                           |                           |                               |       | 13-9  | -319/0                    |
|        |         |                           |                           |                               |       | 2-21  | 0/2288                    |
|        |         |                           |                           |                               |       | 13-10 | 0/2280                    |
| 22-21  | 0/0     | -17.5                     | -17.5                     | 0.11 (3)                      | 10.00 |       | 0.51 (1)                  |
| 21-20  | 0/2243  | -17.5                     | -17.5                     | 0.43 (1)                      | 10.00 |       | 0.51 (1)                  |
| 20-19  | 0/4046  | -17.5                     | -17.5                     | 0.71 (1)                      | 10.00 |       |                           |
| 19-18  | 0/2832  | -17.5                     | -17.5                     | 0.51 (1)                      | 10.00 |       |                           |
| 18-17  | 0/2832  | -17.5                     | -17.5                     | 0.51 (1)                      | 10.00 |       |                           |
| 17-16  | 0/2604  | -17.5                     | -17.5                     | 0.47 (1)                      | 10.00 |       |                           |
| 16-15  | 0/2604  | -17.5                     | -17.5                     | 0.47 (1)                      | 10.00 |       |                           |
| 15-14  | 0/3251  | -17.5                     | -17.5                     | 0.59 (1)                      | 10.00 |       |                           |
| 14-13  | 0/2234  | -17.5                     | -17.5                     | 0.39 (1)                      | 10.00 |       |                           |
| 13-12  | 0/0     | -17.5                     | -17.5                     | 0.08 (3)                      | 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

LOADING IN ALL FLAT SECTIONS 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 (1.23")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.28")  
ALLOWABLE DEFL.(TL)= L/360 (1.23")  
CALCULATED VERT. DEFL.(TL) = L/888 (0.50")

CSI: TC=0.58 (3-4:1), BC=0.71 (19-20:1), WB=0.94 (7-17:1), SSI=0.17 (3-4:1)

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

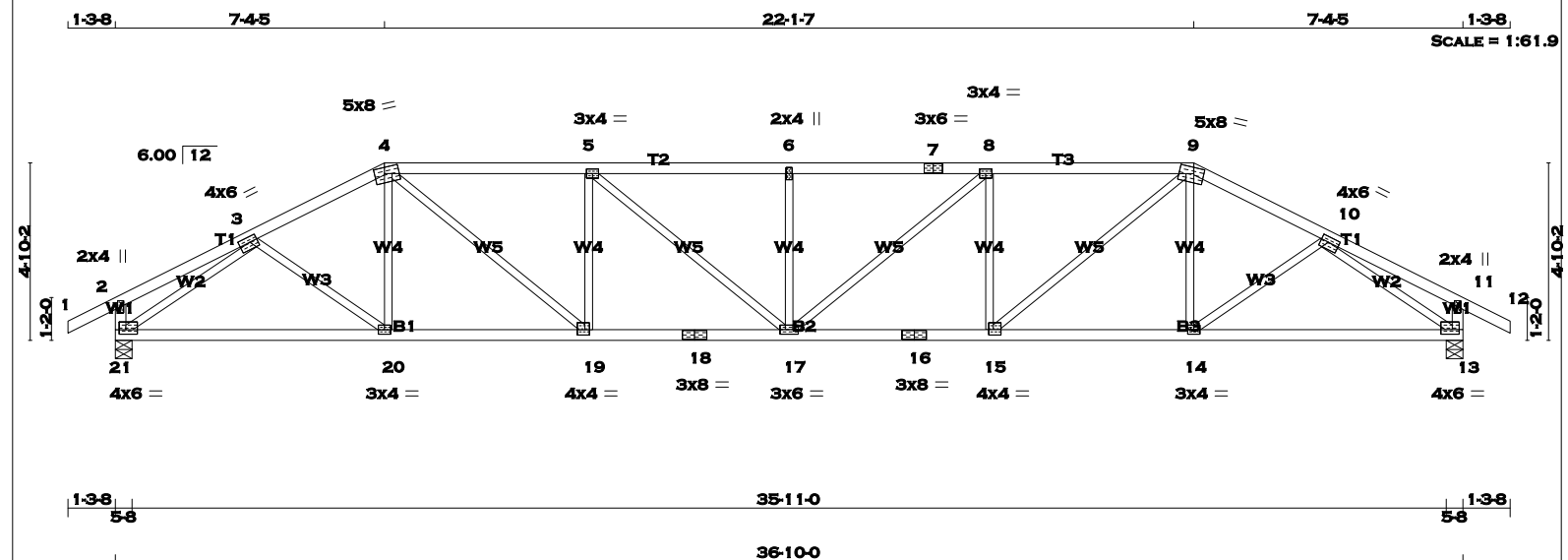
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (14) (INPUT = 0.90 )  
JSI METAL= 0.70 (18) (INPUT = 1.00 )

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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.



TOTAL WEIGHT = 145 lb [M]

| LUMBER            |      |        |        |
|-------------------|------|--------|--------|
| N. L. G. A. RULES | SIZE | LUMBER | DESCR. |
| CHORDS            |      |        |        |
| 1 - 4             | 2x4  | DRY    | No.2   |
| 4 - 7             | 2x4  | DRY    | No.2   |
| 7 - 9             | 2x4  | DRY    | No.2   |
| 9 - 12            | 2x4  | DRY    | No.2   |
| 21 - 2            | 2x4  | DRY    | No.2   |
| 13 - 11           | 2x4  | DRY    | No.2   |
| 21 - 18           | 2x4  | DRY    | No.2   |
| 18 - 16           | 2x4  | DRY    | No.2   |
| 16 - 13           | 2x4  | DRY    | No.2   |
| ALL WEBS EXCEPT   | 2x3  | DRY    | No.2   |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |         |        |     |               |
|-----------------------------|---------|--------|-----|---------------|
| JT                          | TYPE    | PLATES | W   | LEN Y X       |
| 2                           | TMV+p   | MT20   | 2.0 | 4.0           |
| 3                           | TMWW-t  | MT20   | 4.0 | 6.0 1.75 2.50 |
| 4                           | TTWW-m  | MT20   | 5.0 | 8.0 2.00 3.25 |
| 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 2.00 3.25 |
| 10                          | TMWW-t  | MT20   | 4.0 | 6.0 1.75 2.50 |
| 11                          | TMV+p   | MT20   | 2.0 | 4.0           |
| 13                          | BMVW1-t | MT20   | 4.0 | 6.0 1.50 2.25 |
| 14                          | BMWW-t  | MT20   | 3.0 | 4.0           |
| 15                          | BMWW-t  | MT20   | 4.0 | 4.0 1.75 1.50 |
| 16                          | BS-t    | MT20   | 3.0 | 8.0           |
| 17                          | BMWW-t  | MT20   | 3.0 | 6.0           |
| 18                          | BS-t    | MT20   | 3.0 | 8.0           |
| 19                          | BMWW-t  | MT20   | 4.0 | 4.0 1.75 1.50 |
| 20                          | BMWW-t  | MT20   | 3.0 | 4.0           |
| 21                          | BMVW1-t | MT20   | 4.0 | 6.0 1.50 2.25 |

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    |
| 21       | 1852 | 0                       | 1852                            | 0         | 5-8       |
| 13       | 1852 | 0                       | 1852                            | 0         | 5-8       |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX/MIN. SNOW | MAX/MIN. LIVE | MAX/MIN. PERM. LIVE | MAX/MIN. WIND | MAX/MIN. DEAD | MAX/MIN. SOIL |
|----|-----------|---------------|---------------|---------------------|---------------|---------------|---------------|
| 21 | 1297      | 921 / 0       | 0 / 0         | 0 / 0               | 0 / 0         | 376 / 0       | 0 / 0         |
| 13 | 1297      | 921 / 0       | 0 / 0         | 0 / 0               | 0 / 0         | 376 / 0       | 0 / 0         |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 21, 13

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.23 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                  |                           |                | WEBS  |                  |                           |               |
|--------|------------------|---------------------------|----------------|-------|------------------|---------------------------|---------------|
| MEMB.  | MAX. FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC)  | MEMB. | MAX. FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC) |
| FR-TO  |                  | FROM                      | TO             | FR-TO |                  | FROM                      | TO            |
| 1-2    | 0 / 23           | -77.3                     | -77.3 0.10 (1) | 10.00 | 3-20             | 0 / 161                   | 0.04 (4)      |
| 2-3    | 0 / 11           | -77.3                     | -77.3 0.13 (1) | 10.00 | 20-4             | 0 / 90                    | 0.03 (4)      |
| 3-4    | -2564 / 0        | -77.3                     | -77.3 0.22 (1) | 4.14  | 4-19             | 0 / 1282                  | 0.29 (1)      |
| 4-5    | -3276 / 0        | -77.3                     | -77.3 0.59 (1) | 3.40  | 19-5             | -727 / 0                  | 0.25 (1)      |
| 5-6    | -3572 / 0        | -77.3                     | -77.3 0.62 (1) | 3.23  | 5-17             | 0 / 384                   | 0.09 (1)      |
| 6-7    | -3572 / 0        | -77.3                     | -77.3 0.62 (1) | 3.23  | 17-6             | -391 / 0                  | 0.13 (1)      |
| 7-8    | -3572 / 0        | -77.3                     | -77.3 0.62 (1) | 3.23  | 17-8             | 0 / 384                   | 0.09 (1)      |
| 8-9    | -3276 / 0        | -77.3                     | -77.3 0.59 (1) | 3.40  | 15-8             | -727 / 0                  | 0.25 (1)      |
| 9-10   | -2564 / 0        | -77.3                     | -77.3 0.22 (1) | 4.14  | 15-9             | 0 / 1282                  | 0.29 (1)      |
| 10-11  | 0 / 11           | -77.3                     | -77.3 0.13 (1) | 10.00 | 14-9             | 0 / 90                    | 0.03 (4)      |
| 11-12  | 0 / 23           | -77.3                     | -77.3 0.10 (1) | 10.00 | 14-10            | 0 / 161                   | 0.04 (4)      |
| 21-2   | -222 / 0         | 0.0                       | 0.0 0.02 (1)   | 7.81  | 21-3             | -2665 / 0                 | 0.90 (1)      |
| 13-11  | -222 / 0         | 0.0                       | 0.0 0.02 (1)   | 7.81  | 10-13            | -2665 / 0                 | 0.90 (1)      |
| 21-20  | 0 / 2150         | -17.5                     | -17.5 0.46 (1) | 10.00 |                  |                           |               |
| 20-19  | 0 / 2282         | -17.5                     | -17.5 0.48 (1) | 10.00 |                  |                           |               |
| 19-18  | 0 / 3276         | -17.5                     | -17.5 0.58 (1) | 10.00 |                  |                           |               |
| 18-17  | 0 / 3276         | -17.5                     | -17.5 0.58 (1) | 10.00 |                  |                           |               |
| 17-16  | 0 / 3276         | -17.5                     | -17.5 0.58 (1) | 10.00 |                  |                           |               |
| 16-15  | 0 / 3276         | -17.5                     | -17.5 0.58 (1) | 10.00 |                  |                           |               |
| 15-14  | 0 / 2282         | -17.5                     | -17.5 0.48 (1) | 10.00 |                  |                           |               |
| 14-13  | 0 / 2150         | -17.5                     | -17.5 0.46 (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

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 (1.23")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.25")  
ALLOWABLE DEFL.(TL)= L/360 (1.23")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.44")

CSI: TC=0.62 (5-6:1), BC=0.58 (17-19:1), WB=0.90 (10-13:1), SSI=0.20 (8-9:1)

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) SHEAR SECTION  
(PSI) (PLI) (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.

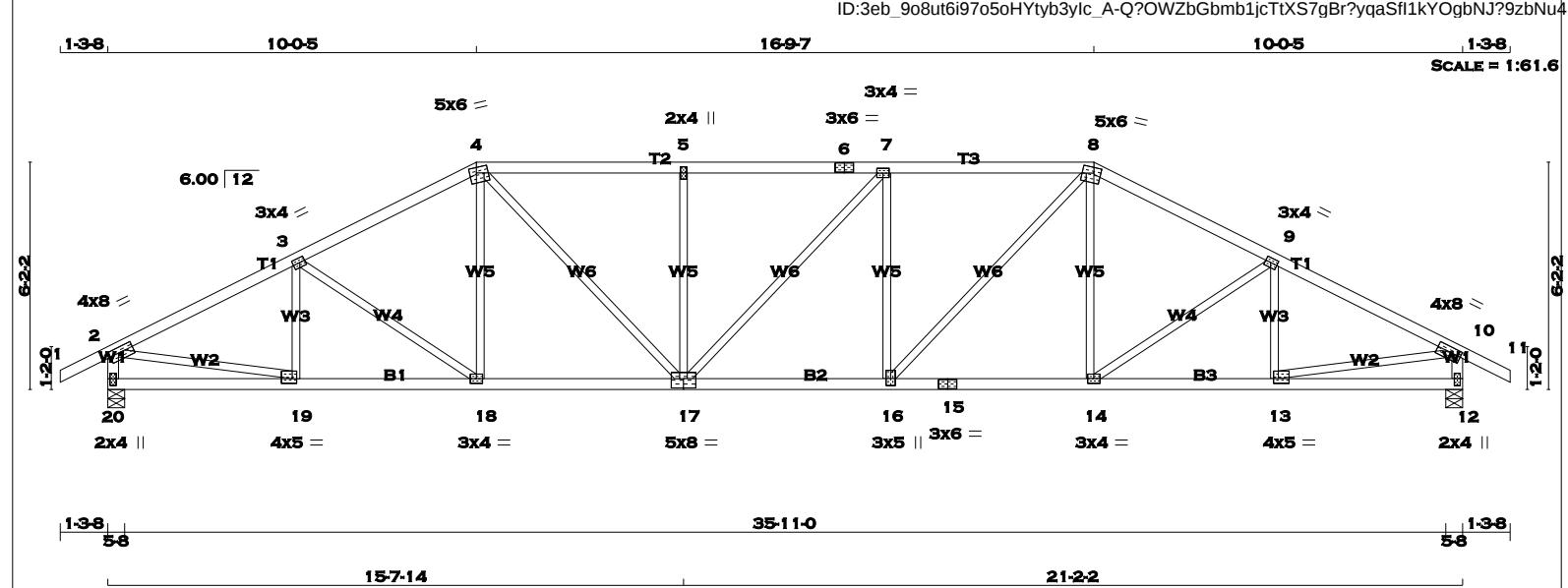
JSI GRIP= 0.90 (13) (INPUT = 0.90)  
JSI METAL= 0.90 (18) (INPUT = 1.00)



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|                                                                                                                                                                                                                                                                                                                                                                                             |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR.<br>1 - 4 2x4 DRY No.2 SPF<br>4 - 6 2x4 DRY No.2 SPF<br>6 - 8 2x4 DRY No.2 SPF<br>8 - 11 2x4 DRY No.2 SPF<br>20 - 2 2x4 DRY No.2 SPF<br>12 - 10 2x4 DRY No.2 SPF<br>20 - 17 2x4 DRY No.2 SPF<br>17 - 15 2x4 DRY No.2 SPF<br>15 - 12 2x4 DRY No.2 SPF<br><br>ALL WEBS 2x3 DRY No.2 SPF<br>EXCEPT<br><br>DRY: SEASONED LUMBER. |  |  |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br>FACTORED MAXIMUM FACTORED INPUT REQD<br>GROSS REACTION GROSS REACTION BRG BRG<br>JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX<br>20 1852 0 1852 0 0 5-8 5-8<br>12 1852 0 1852 0 0 5-8 5-8<br><br><b>UNFACTORED REACTIONS</b><br>1ST LCASE MAX/MIN. COMPONENT REACTIONS<br>JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL<br>20 1297 921 / 0 0 / 0 0 / 0 376 / 0 0 / 0<br>12 1297 921 / 0 0 / 0 0 / 0 376 / 0 0 / 0<br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 20, 12<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.88 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.<br><br><b>LOADING</b><br>TOTAL LOAD CASES: (3)<br><br>CHORDS WEBS<br>MAX. FACTORED MAX. FACTORED MAX. FACTORED<br>MEMB. FORCE VERT. LOAD LC1 MAX. MEMB. FORCE MAX.<br>(LBS) (PLF) CSI (LC) UNBRAC (LBS) CSI (LC)<br>FR-TO FROM TO LENGTH FR-TO<br>1-2 0 / 23 -77.3 -77.3 0.10 (1) 10.00 19-3 -302 / 0 0.07 (1)<br>2-3 -2576 / 0 -77.3 -77.3 0.34 (1) 4.03 3-18 -180 / 0 0.12 (1)<br>3-4 -2451 / 0 -77.3 -77.3 0.32 (1) 4.13 18-4 0 / 201 0.05 (1)<br>4-5 -2715 / 0 -77.3 -77.3 0.39 (1) 3.88 4-17 0 / 779 0.18 (1)<br>5-6 -2715 / 0 -77.3 -77.3 0.36 (1) 3.92 17-5 -467 / 0 0.28 (1)<br>6-7 -2715 / 0 -77.3 -77.3 0.36 (1) 3.92 17-7 -2 / 0 0.00 (1)<br>7-8 -2716 / 0 -77.3 -77.3 0.39 (1) 3.88 16-7 -468 / 0 0.28 (1)<br>8-9 -2450 / 0 -77.3 -77.3 0.32 (1) 4.13 16-8 0 / 781 0.18 (1)<br>9-10 -2576 / 0 -77.3 -77.3 0.34 (1) 4.03 14-8 0 / 200 0.04 (1)<br>10-11 0 / 23 -77.3 -77.3 0.10 (1) 10.00 14-9 -180 / 0 0.12 (1)<br>20-2 -1810 / 0 0.0 0.0 0.18 (1) 6.22 13-9 -302 / 0 0.07 (1)<br>12-10 -1810 / 0 0.0 0.0 0.18 (1) 6.21 2-19 0 / 2354 0.53 (1)<br>13-10 0 / 2354 0.53 (1)<br><br>20-19 0 / 0 -17.5 -17.5 0.09 (3) 10.00<br>19-18 0 / 2321 -17.5 -17.5 0.43 (1) 10.00<br>18-17 0 / 2176 -17.5 -17.5 0.41 (1) 10.00<br>17-16 0 / 2716 -17.5 -17.5 0.49 (1) 10.00<br>16-15 0 / 2176 -17.5 -17.5 0.41 (1) 10.00<br>15-14 0 / 2176 -17.5 -17.5 0.41 (1) 10.00<br>14-13 0 / 2321 -17.5 -17.5 0.43 (1) 10.00<br>13-12 0 / 0 -17.5 -17.5 0.09 (3) 10.00 |  |  |  | <b>DESIGN CRITERIA</b><br><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF<br><br><b>SPACING = 24.0 IN. C/C</b><br><br>LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12<br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>(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<br><br>ALLOWABLE DEFL.(LL)= L/360 (1.23")<br>CALCULATED VERT. DEFL.(LL) = L/ 999 (0.18")<br>ALLOWABLE DEFL.(TL)= L/360 (1.23")<br>CALCULATED VERT. DEFL.(TL) = L/ 999 (0.32")<br><br>CSI: TC=0.39 (4-5:1), BC=0.49 (16-17:1), WB=0.53 (10-13:1), SSI=0.20 (7-8:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10<br>COMP=1.10 SHEAR=1.10 TENS= 1.10<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR SECTION<br>(PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.89 (4) (INPUT = 0.90 )<br>JSI METAL= 0.70 (13) (INPUT = 1.00 ) |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|

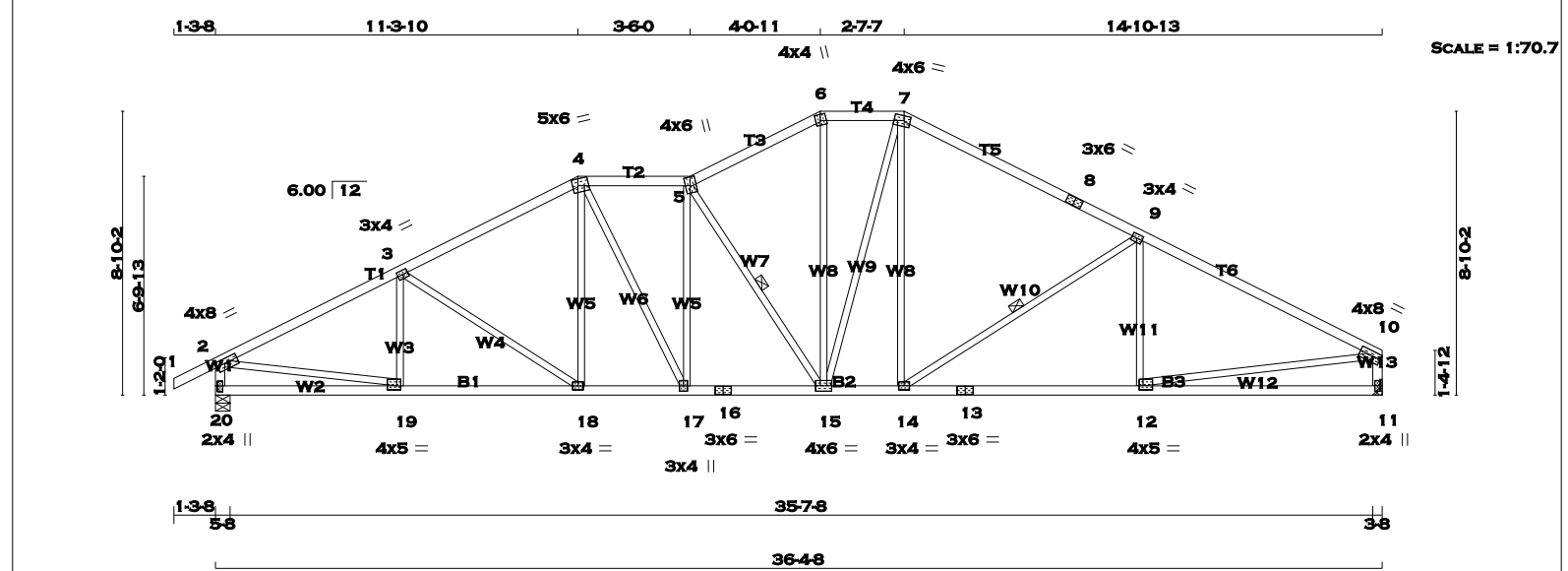


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IN THE DESIGN OF THIS COMPONENT.







|                       |                                                                             |  |  |  |  |  |        |  |  |  |
|-----------------------|-----------------------------------------------------------------------------|--|--|--|--|--|--------|--|--|--|
| TOTAL WEIGHT = 162 lb |                                                                             |  |  |  |  |  |        |  |  |  |
| LUMBER                | DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY |  |  |  |  |  | [M][F] |  |  |  |

| UNFACTORED REACTIONS |          |         |       | UNFACTORED REACTIONS |       |       |         | UNFACTORED REACTIONS |    |          |         |
|----------------------|----------|---------|-------|----------------------|-------|-------|---------|----------------------|----|----------|---------|
| JT                   | COMBINED | SNOW    | LIVE  | PERM.                | LIVE  | WIND  | DEAD    | SOIL                 | JT | COMBINED | SNOW    |
| 20                   | 1282     | 910 / 0 | 0 / 0 | 0 / 0                | 0 / 0 | 0 / 0 | 372 / 0 | 0 / 0                | 20 | 1282     | 910 / 0 |
| 11                   | 1211     | 847 / 0 | 0 / 0 | 0 / 0                | 0 / 0 | 0 / 0 | 364 / 0 | 0 / 0                | 11 | 1211     | 847 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 20

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.56 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.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-15. DBS = 16-0-0. CBF = 93 LBS.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 9-14. DBS = 20-0-0. CBF = 70 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               |  |  |  | LOADING               |  |  |  | LOADING               |  |  |  |
|-----------------------|--|--|--|-----------------------|--|--|--|-----------------------|--|--|--|
| TOTAL LOAD CASES: (3) |  |  |  | TOTAL LOAD CASES: (3) |  |  |  | TOTAL LOAD CASES: (3) |  |  |  |
| TOTAL LOAD CASES: (3) |  |  |  | TOTAL LOAD CASES: (3) |  |  |  | TOTAL LOAD CASES: (3) |  |  |  |

| CHORDS |               |          |            | CHORDS |               |          |            | CHORDS |               |          |            |
|--------|---------------|----------|------------|--------|---------------|----------|------------|--------|---------------|----------|------------|
| MEMB.  | MAX. FACTORED | FACTORED | VERT. LOAD | MEMB.  | MAX. FACTORED | FACTORED | VERT. LOAD | MEMB.  | MAX. FACTORED | FACTORED | VERT. LOAD |
| FR-TO  | FORCE (LBS)   | (PLF)    | CSI (LC)   | FR-TO  | FORCE (LBS)   | (PLF)    | CSI (LC)   | FR-TO  | FORCE (LBS)   | (PLF)    | CSI (LC)   |

|       |           |       |       |          |       |      |           |          |
|-------|-----------|-------|-------|----------|-------|------|-----------|----------|
| 1-2   | 0 / 23    | -77.3 | -77.3 | 0.10 (1) | 10.00 | 19-3 | -240 / 26 | 0.06 (1) |
| 2-3   | -2575 / 0 | -77.3 | -77.3 | 0.43 (1) | 3.94  | 3-18 | -310 / 0  | 0.26 (1) |
| 3-4   | -2332 / 0 | -77.3 | -77.3 | 0.40 (1) | 4.14  | 18-4 | 0 / 259   | 0.06 (1) |
| 4-5   | -2317 / 0 | -77.3 | -77.3 | 0.18 (1) | 4.36  | 4-17 | 0 / 538   | 0.12 (1) |
| 5-6   | -2041 / 0 | -77.3 | -77.3 | 0.22 (1) | 4.56  | 17-5 | -425 / 0  | 0.33 (1) |
| 6-7   | -1834 / 0 | -77.3 | -77.3 | 0.10 (1) | 4.88  | 5-15 | -926 / 0  | 0.37 (1) |
| 7-8   | -2020 / 0 | -77.3 | -77.3 | 0.69 (1) | 3.98  | 15-6 | 0 / 655   | 0.15 (1) |
| 8-9   | -2020 / 0 | -77.3 | -77.3 | 0.69 (1) | 3.98  | 15-7 | 0 / 182   | 0.04 (1) |
| 9-10  | -2482 / 0 | -77.3 | -77.3 | 0.79 (1) | 3.56  | 14-9 | 0 / 402   | 0.09 (1) |
| 20-2  | -1786 / 0 | 0.0   | 0.0   | 0.18 (1) | 6.25  | 14-9 | -562 / 0  | 0.31 (1) |
| 11-10 | -1671 / 0 | 0.0   | 0.0   | 0.17 (1) | 6.42  | 12-9 | -175 / 75 | 0.07 (1) |

|       |          |       |       |          |       |       |          |          |
|-------|----------|-------|-------|----------|-------|-------|----------|----------|
| 20-19 | 0 / 0    | -17.5 | -17.5 | 0.13 (3) | 10.00 | 2-19  | 0 / 2348 | 0.53 (1) |
| 19-18 | 0 / 2323 | -17.5 | -17.5 | 0.42 (1) | 10.00 | 12-10 | 0 / 2271 | 0.51 (1) |
| 18-17 | 0 / 2068 | -17.5 | -17.5 | 0.38 (1) | 10.00 |       |          |          |
| 17-16 | 0 / 2324 | -17.5 | -17.5 | 0.41 (1) | 10.00 |       |          |          |
| 16-15 | 0 / 2324 | -17.5 | -17.5 | 0.41 (1) | 10.00 |       |          |          |
| 15-14 | 0 / 1782 | -17.5 | -17.5 | 0.36 (1) | 10.00 |       |          |          |
| 14-13 | 0 / 2248 | -17.5 | -17.5 | 0.48 (1) | 10.00 |       |          |          |
| 13-12 | 0 / 2248 | -17.5 | -17.5 | 0.48 (1) | 10.00 |       |          |          |
| 12-11 | 0 / 0    | -17.5 | -17.5 | 0.25 (3) | 10.00 |       |          |          |

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.

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) SHEAR SECTION (PSI) (PLI) (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= 0.90 (5) (INPUT = 0.90 )

JSI METAL= 0.70 (19) (INPUT = 1.00 )

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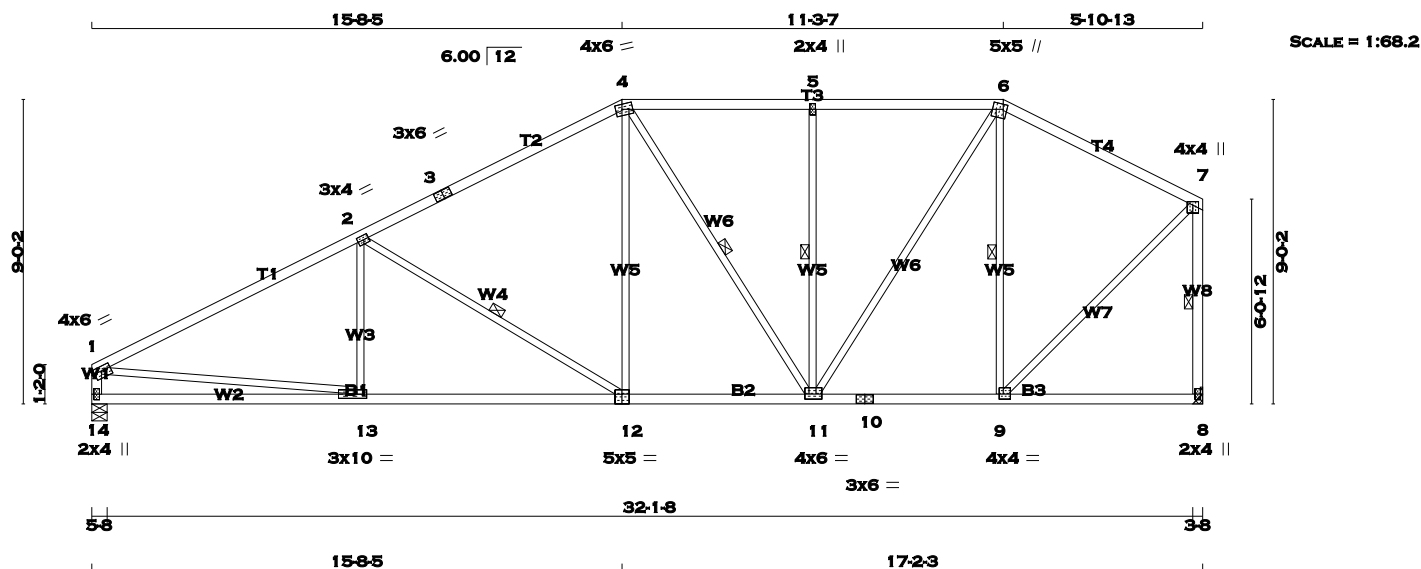
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KOTT









| LUMBER            |      |        |      | DESCR. |     |
|-------------------|------|--------|------|--------|-----|
| N. L. G. A. RULES |      | LUMBER | SIZE | DRY    | SPF |
| CHORDS            | SIZE |        |      |        |     |
| 1 - 3             | 2x4  | No.2   |      |        |     |
| 3 - 4             | 2x4  | No.2   |      |        |     |
| 4 - 6             | 2x4  | No.2   |      |        |     |
| 6 - 7             | 2x4  | No.2   |      |        |     |
| 14 - 1            | 2x4  | No.2   |      |        |     |
| 8 - 7             | 2x4  | No.2   |      |        |     |
| 14 - 12           | 2x4  | No.2   |      |        |     |
| 12 - 10           | 2x4  | No.2   |      |        |     |
| 10 - 8            | 2x4  | No.2   |      |        |     |
| ALL WEBS EXCEPT   | 2x3  | No.2   |      |        | SPF |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |         |        |     |      |           |      |
|-----------------------------|---------|--------|-----|------|-----------|------|
| JT                          | TYPE    | PLATES | W   | LEN  | Y         | X    |
| 1                           | TMVW-t  | MT20   | 4.0 | 6.0  | 1.50      | 2.75 |
| 2                           | TMWW-t  | MT20   | 3.0 | 4.0  | 1.50      | 1.75 |
| 3                           | TS-t    | MT20   | 3.0 | 6.0  |           |      |
| 4                           | TTWW-m  | MT20   | 4.0 | 6.0  | 1.75      | 2.25 |
| 5                           | TMW-w   | MT20   | 2.0 | 4.0  |           |      |
| 6                           | TTWW-m  | MT20   | 5.0 | 5.0  | 1.75      | 1.25 |
| 7                           | TMVW-p  | MT20   | 4.0 | 4.0  | 1.25      | 2.00 |
| 8                           | BMV1-p  | MT20   | 2.0 | 4.0  |           |      |
| 9                           | BMWW-t  | MT20   | 4.0 | 4.0  | 1.75      | 1.50 |
| 10                          | BS-t    | MT20   | 3.0 | 6.0  |           |      |
| 11                          | BMWWW-t | MT20   | 4.0 | 6.0  | 1.75      | 1.50 |
| 12                          | BSWW-t  | MT20   | 5.0 | 5.0  | Edge 2.50 |      |
| 13                          | BMWW-t  | MT20   | 3.0 | 10.0 | 1.50      | 3.50 |
| 14                          | 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.



| DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER |                         |                               |                                 |           |        |                     |           |  |  |
|-----------------------------------------------------------------------------------------------|-------------------------|-------------------------------|---------------------------------|-----------|--------|---------------------|-----------|--|--|
| BEARINGS                                                                                      |                         |                               |                                 |           |        |                     |           |  |  |
| JT                                                                                            | FACTORED GROSS REACTION |                               | MAXIMUM FACTORED GROSS REACTION |           | UPLIFT | INPUT BRG           | REQRD BRG |  |  |
|                                                                                               | VERT                    | HORZ                          | DOWN                            | HORZ      |        | IN-SX               | IN-SX     |  |  |
| 14                                                                                            | 1559                    | 0                             | 1559                            | 0         | 0      | 5-8                 | 5-8       |  |  |
| 8                                                                                             | 1559                    | 0                             | 1559                            | 0         | 0      | HANGER BY OTHERS    |           |  |  |
|                                                                                               |                         |                               |                                 |           |        | MIN. SEAT SIZE: 3-8 |           |  |  |
|                                                                                               |                         |                               |                                 |           |        |                     |           |  |  |
| UNFACTORED REACTIONS                                                                          |                         |                               |                                 |           |        |                     |           |  |  |
| JT                                                                                            | 1ST LCASE               | MAX./MIN. COMPONENT REACTIONS |                                 |           |        |                     |           |  |  |
|                                                                                               | COMBINED                | SNOW                          | LIVE                            | PERM.LIVE | WIND   | DEAD                | SOIL      |  |  |
| 14                                                                                            | 1094                    | 765 / 0                       | 0 / 0                           | 0 / 0     | 0 / 0  | 329 / 0             | 0 / 0     |  |  |
| 8                                                                                             | 1094                    | 765 / 0                       | 0 / 0                           | 0 / 0     | 0 / 0  | 329 / 0             | 0 / 0     |  |  |

| UNFACTORED REACTIONS |          |                               |       |           |       |         |       |
|----------------------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| 1ST LCASE            |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
| JT                   | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 14                   | 1094     | 765 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 329 / 0 | 0 / 0 |
| 8                    | 1094     | 765 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 329 / 0 | 0 / 0 |

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.55 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 2-12, 4-11, 5-11, 6-9. DBS = 20-0-0. CBF = 91 LBS.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-8. DBS = 8-0-0. CBF = 76 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

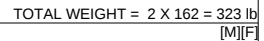
| C H O R D S |                           |                      |          |                      | W E B S |                           |                      |          |  |
|-------------|---------------------------|----------------------|----------|----------------------|---------|---------------------------|----------------------|----------|--|
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. (PLF) | LOAD LC1 | MAX. UNBRACED LENGTH | MEMB.   | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH |          |  |
| FR-TO       |                           | FROM                 | TO       |                      | FR-TO   |                           |                      |          |  |
| 1-2         | -2298 / 0                 | -77.3                | -77.3    | 0.86 (1)             | 3.55    | 13-2                      | -70 / 112            | 0.04 (3) |  |
| 2-3         | -1678 / 0                 | -77.3                | -77.3    | 0.74 (1)             | 4.17    | 2-12                      | -722 / 0             | 0.43 (1) |  |
| 3-4         | -1678 / 0                 | -77.3                | -77.3    | 0.74 (1)             | 4.17    | 12-4                      | 0 / 499              | 0.11 (1) |  |
| 4-5         | -1376 / 0                 | -77.3                | -77.3    | 0.34 (1)             | 5.16    | 4-11                      | -185 / 0             | 0.14 (1) |  |
| 5-6         | -1376 / 0                 | -77.3                | -77.3    | 0.34 (1)             | 5.16    | 11-5                      | -537 / 0             | 0.28 (1) |  |
| 6-7         | -988 / 0                  | -77.3                | -77.3    | 0.36 (1)             | 5.81    | 11-6                      | 0 / 922              | 0.21 (1) |  |
| 14-1        | -1502 / 0                 | 0.0                  | 0.0      | 0.15 (1)             | 6.70    | 9-6                       | -727 / 0             | 0.38 (1) |  |
| 8-7         | -1518 / 0                 | 0.0                  | 0.0      | 0.27 (1)             | 5.33    | 1-13                      | 0 / 2097             | 0.47 (1) |  |
|             |                           |                      |          |                      |         | 9-7                       | 0 / 1224             | 0.28 (1) |  |
| 14-13       | 0 / 0                     | -17.5                | -17.5    | 0.27 (3)             | 10.00   |                           |                      |          |  |
| 13-12       | 0 / 2085                  | -17.5                | -17.5    | 0.47 (1)             | 10.00   |                           |                      |          |  |
| 12-11       | 0 / 1476                  | -17.5                | -17.5    | 0.33 (1)             | 10.00   |                           |                      |          |  |
| 11-10       | 0 / 875                   | -17.5                | -17.5    | 0.23 (1)             | 10.00   |                           |                      |          |  |
| 10-9        | 0 / 875                   | -17.5                | -17.5    | 0.23 (1)             | 10.00   |                           |                      |          |  |
| 9-8         | 0 / 0                     | -17.5                | -17.5    | 0.15 (3)             | 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                                                                                                                                               |    |   |      |     |      |     |  |  |  |
| 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:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- 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 (1.10")<br>CALCULATED VERT. DEFL.(LL) = L/999 (0.11")<br>ALLOWABLE DEFL.(TL)= L/360 (1.10")<br>CALCULATED VERT. DEFL.(TL) = L/999 (0.21") |    |   |      |     |      |     |  |  |  |
| CSI: TC=0.86 (1-2:1), BC=0.47 (12-13:1), WB=0.47 (1-13:1), SSI=0.27 (1-2:1)                                                                                          |    |   |      |     |      |     |  |  |  |
| DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10<br>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<br>PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656                                         |    |   |      |     |      |     |  |  |  |
| PLATE PLACEMENT TOL. = 0.250 inches                                                                                                                                  |    |   |      |     |      |     |  |  |  |
| PLATE ROTATION TOL. = 5.0 Deg.                                                                                                                                       |    |   |      |     |      |     |  |  |  |
| JSI GRIP= 0.90 (13) (INPUT = 0.90 )<br>JSI METAL= 0.61 (1) (INPUT = 1.00 )                                                                                           |    |   |      |     |      |     |  |  |  |

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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.

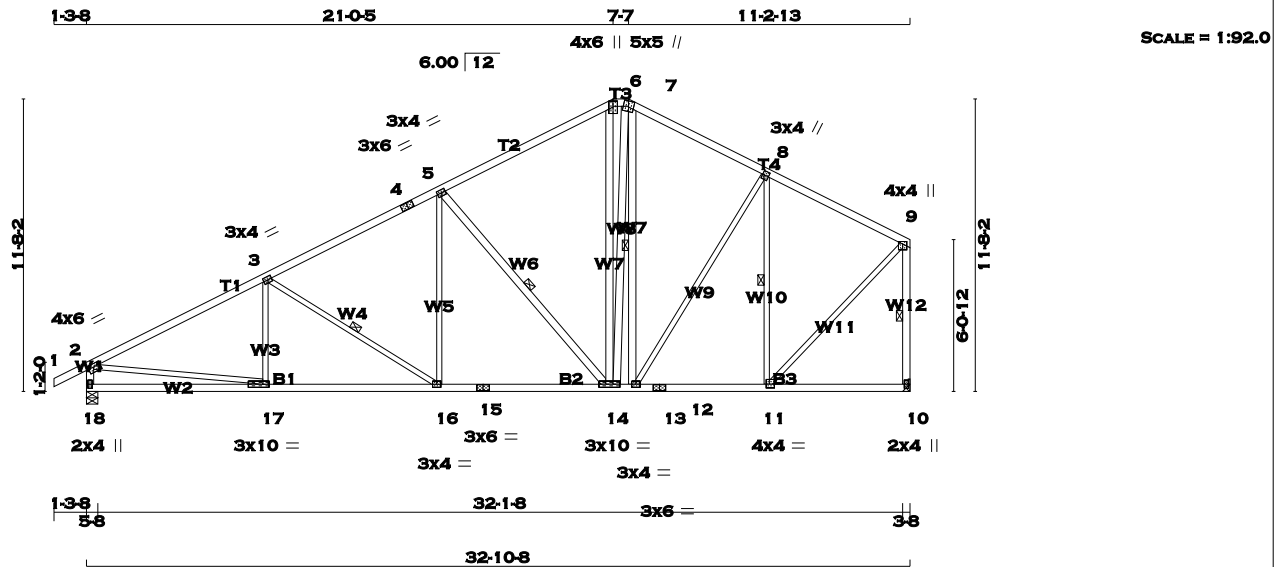




Kott Lumber Uxbridge, Stouffville, ON, CGC

Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Mon Mar 13 10:58:05 2017 Page 1

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| LUMBER          |      |        |        | N. L. G. A. RULES |  |
|-----------------|------|--------|--------|-------------------|--|
| CHORDS          | SIZE | LUMBER | DESCR. |                   |  |
| 1 - 4           | 2x4  | DRY    | No.2   | SPF               |  |
| 4 - 6           | 2x4  | DRY    | No.2   | SPF               |  |
| 6 - 7           | 2x4  | DRY    | No.2   | SPF               |  |
| 7 - 9           | 2x4  | DRY    | No.2   | SPF               |  |
| 18 - 2          | 2x4  | DRY    | No.2   | SPF               |  |
| 10 - 9          | 2x4  | DRY    | No.2   | SPF               |  |
| 18 - 15         | 2x4  | DRY    | No.2   | SPF               |  |
| 15 - 12         | 2x4  | DRY    | No.2   | SPF               |  |
| 12 - 10         | 2x4  | DRY    | No.2   | SPF               |  |
| ALL WEBS EXCEPT | 2x3  | DRY    | No.2   | SPF               |  |
| 5 - 14          | 2x4  | DRY    | No.2   | SPF               |  |
| 14 - 6          | 2x4  | DRY    | No.2   | SPF               |  |
| 14 - 7          | 2x4  | DRY    | No.2   | SPF               |  |
| 13 - 7          | 2x4  | 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 | 6.0  | 1.50 2.75 |
| 3                           | TMWW-t  | MT20   | 3.0 | 4.0  | 1.50 1.75 |
| 4                           | TS-t    | MT20   | 3.0 | 6.0  |           |
| 5                           | TMWW-t  | MT20   | 3.0 | 4.0  | 1.50 1.75 |
| 6                           | TTW+p   | MT20   | 4.0 | 6.0  | 2.50 2.00 |
| 7                           | TTWW+m  | MT20   | 5.0 | 5.0  |           |
| 8                           | TMWW+t  | MT20   | 3.0 | 4.0  | 2.00 0.75 |
| 9                           | TMVW+p  | MT20   | 4.0 | 4.0  | 1.25 2.00 |
| 10                          | BMV1+p  | MT20   | 2.0 | 4.0  |           |
| 11                          | BMWW-t  | MT20   | 4.0 | 4.0  | 1.75 1.50 |
| 12                          | BS-t    | MT20   | 3.0 | 6.0  |           |
| 13                          | BMWW-t  | MT20   | 3.0 | 4.0  |           |
| 14                          | BMWWW-t | MT20   | 3.0 | 10.0 |           |
| 15                          | BS-t    | MT20   | 3.0 | 6.0  |           |
| 16                          | BMWW-t  | MT20   | 3.0 | 4.0  |           |
| 17                          | BMWW-t  | MT20   | 3.0 | 10.0 | 1.50 3.00 |
| 18                          | BMV1+p  | MT20   | 2.0 | 4.0  |           |

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 | IN-SX                                | IN-SX |           |  |
| 18                                                                                            |  | 1664                    | 0    | 1664                            | 0    | 5-8                                  | 5-8   |           |  |
| 10                                                                                            |  | 1559                    | 0    | 1559                            | 0    | HANGER BY OTHERS MIN. SEAT SIZE: 3-8 |       |           |  |

| UNFACTORED REACTIONS |  |           |         |                               |           |       |         |
|----------------------|--|-----------|---------|-------------------------------|-----------|-------|---------|
|                      |  | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |           |       |         |
| JT                   |  | COMBINED  | SNOW    | LIVE                          | PERM.LIVE | WIND  | DEAD    |
| 18                   |  | 1165      | 829 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 337 / 0 |
| 10                   |  | 1094      | 765 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 329 / 0 |

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.92 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 3-16, 7-13. DBS = 20-0-0 . CBF = 63 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-14. DBS = 16-0-0 . CBF = 91 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 8-11. DBS = 18-0-0 . CBF = 89 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 9-10. DBS = 8-0-0 . CBF = 76 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: (3) |       |                           |              |
|---------|---------------------------|---------------------------|----------------|-----------------------|-------|---------------------------|--------------|
| CHORDS  |                           |                           |                | WEBS                  |       |                           |              |
| MEMB.   | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 (LC)   | MAX. UNBRACED LENGTH  | MEMB. | MAX. FACTORED FORCE (LBS) | MAX LC1 (LC) |
| FR-TO   |                           | FROM                      | TO             | FR-TO                 |       |                           |              |
| 1-2     | 0 / 23                    | -77.3                     | -77.3 0.10 (1) | 10.00                 | 17-3  | -115 / 82                 | 0.04 (1)     |
| 2-3     | -2288 / 0                 | -77.3                     | -77.3 0.64 (1) | 3.92                  | 3-16  | -503 / 0                  | 0.23 (1)     |
| 3-4     | -1838 / 0                 | -77.3                     | -77.3 0.49 (1) | 4.46                  | 16-5  | 0 / 394                   | 0.09 (1)     |
| 4-5     | -1838 / 0                 | -77.3                     | -77.3 0.49 (1) | 4.46                  | 5-14  | -908 / 0                  | 0.52 (1)     |
| 5-6     | -1200 / 0                 | -77.3                     | -77.3 0.48 (1) | 5.24                  | 14-6  | 0 / 288                   | 0.05 (1)     |
| 6-7     | -1048 / 0                 | -77.3                     | -77.3 0.01 (1) | 6.14                  | 14-7  | 0 / 460                   | 0.07 (1)     |
| 7-8     | -1160 / 0                 | -77.3                     | -77.3 0.34 (1) | 5.51                  | 13-7  | -132 / 0                  | 0.10 (1)     |
| 8-9     | -978 / 0                  | -77.3                     | -77.3 0.33 (1) | 5.88                  | 13-8  | 0 / 225                   | 0.05 (1)     |
| 18-2    | -1611 / 0                 | 0.0                       | 0.0 0.16 (1)   | 6.52                  | 11-8  | -793 / 0                  | 0.41 (1)     |
| 10-9    | -1518 / 0                 | 0.0                       | 0.0 0.27 (1)   | 5.33                  | 2-17  | 0 / 2082                  | 0.47 (1)     |
|         |                           |                           |                |                       | 11-9  | 0 / 1271                  | 0.29 (1)     |
| 18-17   | 0 / 0                     | -17.5                     | -17.5 0.20 (3) | 10.00                 |       |                           |              |
| 17-16   | 0 / 2067                  | -17.5                     | -17.5 0.43 (1) | 10.00                 |       |                           |              |
| 16-15   | 0 / 1644                  | -17.5                     | -17.5 0.36 (1) | 10.00                 |       |                           |              |
| 15-14   | 0 / 1644                  | -17.5                     | -17.5 0.36 (1) | 10.00                 |       |                           |              |
| 14-13   | 0 / 1017                  | -17.5                     | -17.5 0.22 (1) | 10.00                 |       |                           |              |
| 13-12   | 0 / 896                   | -17.5                     | -17.5 0.22 (1) | 10.00                 |       |                           |              |
| 12-11   | 0 / 896                   | -17.5                     | -17.5 0.22 (1) | 10.00                 |       |                           |              |
| 11-10   | 0 / 0                     | -17.5                     | -17.5 0.14 (3) | 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**  
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 (1.10")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.10")  
ALLOWABLE DEFL.(TL)= L/360 (1.10")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.19")  
CSI: TC=0.64 (2-3:1), BC=0.43 (16-17:1), WB=0.52 (5-14:1), SSI=0.23 (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

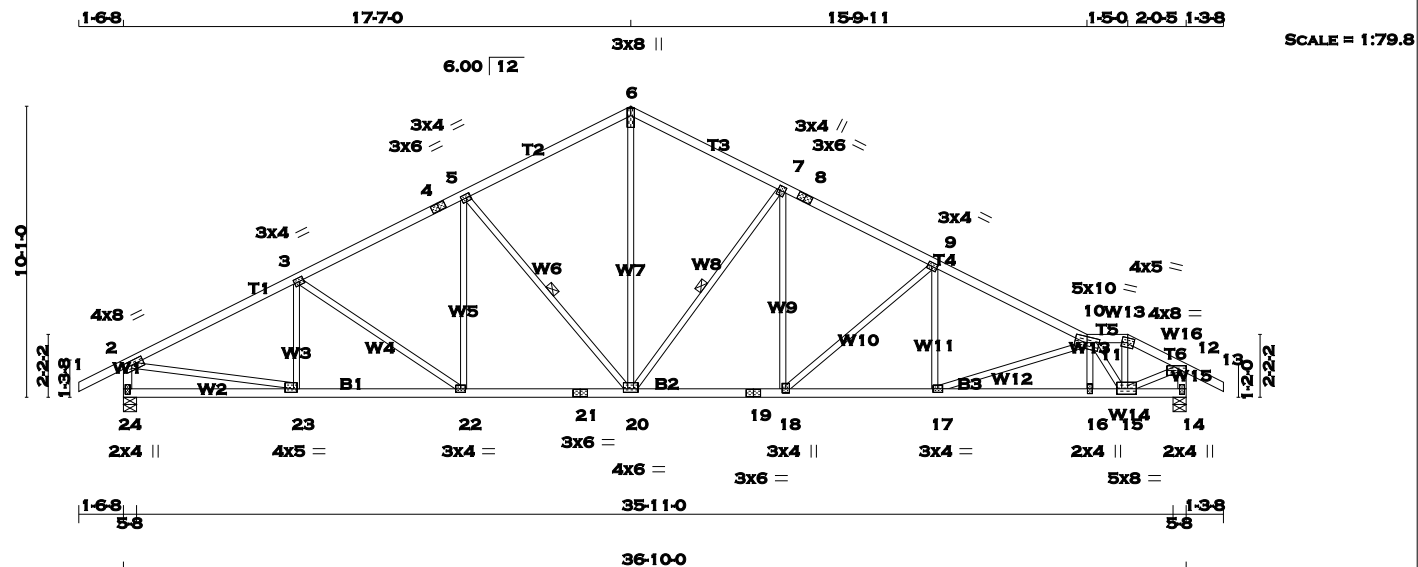
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .  
NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656  
PLATE PLACEMENT TOL. = 0.250 inches  
PLATE ROTATION TOL. = 5.0 Deg.  
JSI GRIP= 0.89 (17) (INPUT = 0.90 )  
JSI METAL= 0.61 (2) (INPUT = 1.00 )



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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.





TOTAL WEIGHT = 159 lb  
[M][F]

| LUMBER          |      | N. L. G. A. RULES |      | LUMBER | DESCR. |
|-----------------|------|-------------------|------|--------|--------|
| CHORDS          | SIZE |                   |      |        |        |
| 1 - 4           | 2x4  | DRY               | No.2 | SPF    |        |
| 4 - 6           | 2x4  | DRY               | No.2 | SPF    |        |
| 6 - 8           | 2x4  | DRY               | No.2 | SPF    |        |
| 8 - 10          | 2x4  | DRY               | No.2 | SPF    |        |
| 10 - 11         | 2x4  | DRY               | No.2 | SPF    |        |
| 11 - 13         | 2x4  | DRY               | No.2 | SPF    |        |
| 24 - 2          | 2x4  | DRY               | No.2 | SPF    |        |
| 14 - 12         | 2x4  | DRY               | No.2 | SPF    |        |
| 24 - 21         | 2x4  | DRY               | No.2 | SPF    |        |
| 19 - 19         | 2x4  | DRY               | No.2 | SPF    |        |
| 19 - 14         | 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, 5, 9                     |         |        |     |      |           |
| 3                           | TMWW-t  | MT20   | 3.0 | 4.0  | 1.50 1.75 |
| 4                           | TS-t    | MT20   | 3.0 | 6.0  |           |
| 6                           | TTW+p   | MT20   | 3.0 | 8.0  | Edge      |
| 7                           | TMWW+t  | MT20   | 3.0 | 4.0  | 2.00 0.75 |
| 8                           | TS-t    | MT20   | 3.0 | 6.0  |           |
| 10                          | TTWWW-m | MT20   | 5.0 | 10.0 |           |
| 11                          | TTW-m   | MT20   | 4.0 | 5.0  |           |
| 12                          | TMVW-p  | MT20   | 4.0 | 8.0  | 1.25 3.50 |
| 14                          | BMV1+p  | MT20   | 2.0 | 4.0  | 2.25 1.00 |
| 15                          | BMWWW-t | MT20   | 5.0 | 8.0  | 2.25 2.00 |
| 16                          | BMW+w   | MT20   | 2.0 | 4.0  |           |
| 17                          | BMWW-t  | MT20   | 3.0 | 4.0  |           |
| 18                          | BMWW+t  | MT20   | 3.0 | 4.0  | 1.75 1.50 |
| 19                          | BS-t    | MT20   | 3.0 | 6.0  |           |
| 20                          | BMWWW-t | MT20   | 4.0 | 6.0  | 1.50 3.00 |
| 21                          | BS-t    | MT20   | 3.0 | 6.0  |           |
| 22                          | BMWW-t  | MT20   | 3.0 | 4.0  |           |
| 23                          | BMWW-t  | MT20   | 4.0 | 5.0  | 1.50 1.50 |
| 24                          | BMV1+p  | MT20   | 2.0 | 4.0  | 2.25 1.00 |

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.

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

| BEARINGS |                | FACTORED |      | MAXIMUM FACTORED |      | INPUT  |       | REQRD |       |
|----------|----------------|----------|------|------------------|------|--------|-------|-------|-------|
| JT       | GROSS REACTION | DOWN     | HORZ | DOWN             | HORZ | UPLIFT | IN-SX | BRG   | IN-SX |
| 24       | 1871           | 0        | 1871 | 0                | 0    | 5-8    | 5-8   | 5-8   | 5-8   |
| 14       | 1852           | 0        | 1852 | 0                | 0    | 5-8    | 5-8   | 5-8   | 5-8   |

| UNFACTORED REACTIONS |          | 1ST LCASE |       | MAX./MIN. COMPONENT REACTIONS |       |         |       |  |  |
|----------------------|----------|-----------|-------|-------------------------------|-------|---------|-------|--|--|
| JT                   | COMBINED | SNOW      | LIVE  | PERM.LIVE                     | WIND  | DEAD    | SOIL  |  |  |
| 24                   | 1310     | 932 / 0   | 0 / 0 | 0 / 0                         | 0 / 0 | 378 / 0 | 0 / 0 |  |  |
| 14                   | 1297     | 921 / 0   | 0 / 0 | 0 / 0                         | 0 / 0 | 376 / 0 | 0 / 0 |  |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 24, 14

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.78 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 5-20. DBS = 20-0-0. CBF = 83 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-20. DBS = 16-0-0. CBF = 85 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: (3)     |                                    |
|---------|---------------------------|---------------------------|------------------------------------|
| CHORDS  |                           | WEBS                      |                                    |
| MEMB.   | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED UNBRACED LENGTH (LC) |
| FR-TO   |                           | FROM TO                   | FR-TO                              |
| 1-2     | 0 / 28                    | -77.3 -77.3               | 0.14 (1) 10.00                     |
| 2-3     | -2527 / 0                 | -77.3 -77.3               | 0.46 (1) 3.96                      |
| 3-4     | -2323 / 0                 | -77.3 -77.3               | 0.38 (1) 4.19                      |
| 4-5     | -2323 / 0                 | -77.3 -77.3               | 0.38 (1) 4.19                      |
| 5-6     | -1861 / 0                 | -77.3 -77.3               | 0.37 (1) 4.58                      |
| 6-7     | -1859 / 0                 | -77.3 -77.3               | 0.30 (1) 4.65                      |
| 7-8     | -2408 / 0                 | -77.3 -77.3               | 0.32 (1) 4.18                      |
| 8-9     | -2408 / 0                 | -77.3 -77.3               | 0.32 (1) 4.18                      |
| 9-10    | -2925 / 0                 | -77.3 -77.3               | 0.39 (1) 3.78                      |
| 10-11   | -1858 / 0                 | -77.3 -77.3               | 0.05 (1) 4.90                      |
| 11-12   | -2033 / 0                 | -77.3 -77.3               | 0.08 (1) 4.70                      |
| 12-13   | 0 / 23                    | -77.3 -77.3               | 0.10 (1) 10.00                     |
| 24-2    | -1826 / 0                 | 0.0 0.0                   | 0.19 (1) 6.20                      |
| 14-12   | -1830 / 0                 | 0.0 0.0                   | 0.18 (1) 6.19                      |

|       |          |             |                |
|-------|----------|-------------|----------------|
| 24-23 | 0 / 0    | -17.5 -17.5 | 0.14 (3) 10.00 |
| 23-22 | 0 / 2277 | -17.5 -17.5 | 0.42 (1) 10.00 |
| 22-21 | 0 / 2077 | -17.5 -17.5 | 0.40 (1) 10.00 |
| 21-20 | 0 / 2077 | -17.5 -17.5 | 0.40 (1) 10.00 |
| 20-19 | 0 / 2154 | -17.5 -17.5 | 0.42 (1) 10.00 |
| 19-18 | 0 / 2154 | -17.5 -17.5 | 0.42 (1) 10.00 |
| 18-17 | 0 / 2633 | -17.5 -17.5 | 0.48 (1) 10.00 |
| 17-16 | 0 / 2888 | -17.5 -17.5 | 0.54 (1) 10.00 |
| 16-15 | 0 / 2890 | -17.5 -17.5 | 0.49 (1) 10.00 |
| 15-14 | 0 / 0    | -17.5 -17.5 | 0.02 (3) 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

LOADING IN ALL FLAT SECTIONS 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 (1.23")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.16")  
ALLOWABLE DEFL.(TL)= L/360 (1.23")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.29")

CSI: TC=0.46 (2-3:1), BC=0.54 (16-17:1), WB=0.57 (9-18:1), SSI=0.19 (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) SHEAR SECTION  
(PSI) (PLI) (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= 0.89 (6) (INPUT = 0.90 )  
JSI METAL= 0.80 (10) (INPUT = 1.00 )



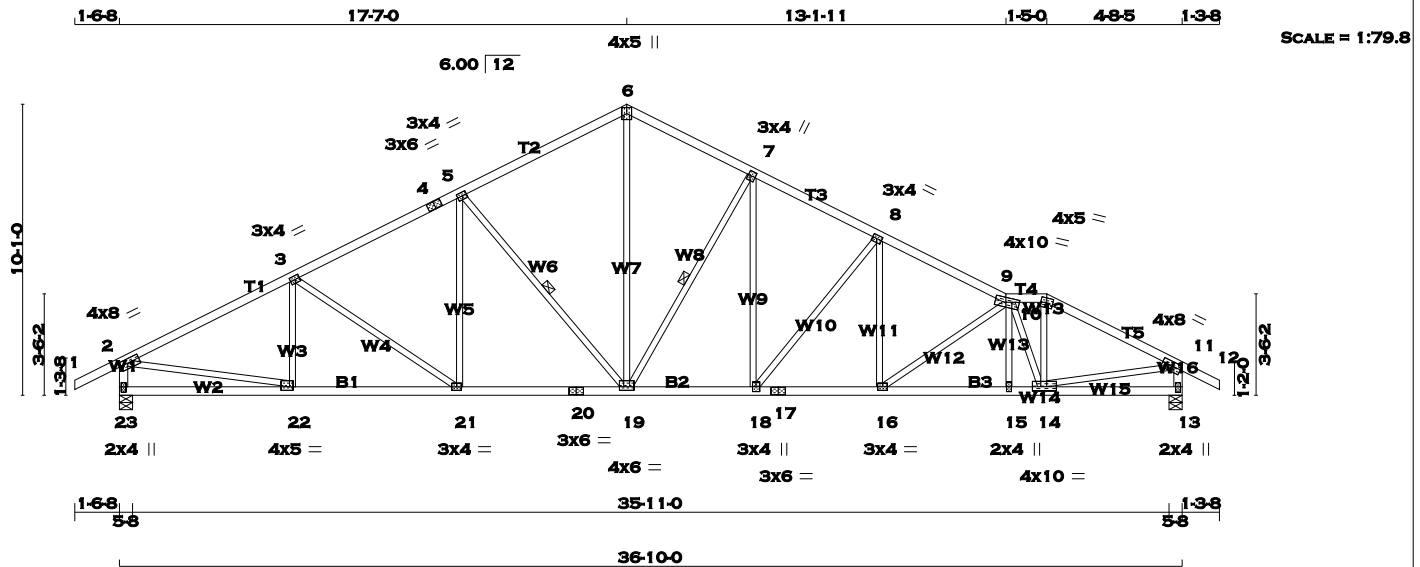
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READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

Kott Lumber Uxbridge, Stouffville, ON, CGC

Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Mon Mar 13 10:58:06 2017 Page 1

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| LUMBER   |      | N. L. G. A. RULES |      | LUMBER | DESCR. |
|----------|------|-------------------|------|--------|--------|
| CHORDS   | SIZE |                   |      |        |        |
| 1 - 4    | 2x4  | DRY               | No.2 | SPF    | SPF    |
| 4 - 6    | 2x4  | DRY               | No.2 |        |        |
| 6 - 9    | 2x4  | DRY               | No.2 |        |        |
| 9 - 10   | 2x4  | DRY               | No.2 |        |        |
| 10 - 12  | 2x4  | DRY               | No.2 |        |        |
| 23 - 2   | 2x4  | DRY               | No.2 |        |        |
| 13 - 11  | 2x4  | DRY               | No.2 |        |        |
| 23 - 20  | 2x4  | DRY               | No.2 |        |        |
| 20 - 17  | 2x4  | DRY               | No.2 |        |        |
| 17 - 13  | 2x4  | DRY               | No.2 |        |        |
| ALL WEBS | 2x3  | DRY               | No.2 | SPF    | SPF    |
| EXCEPT   |      |                   |      |        |        |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |         |        |     |      |           |
|-----------------------------|---------|--------|-----|------|-----------|
| JT                          | TYPE    | PLATES | W   | LEN  | X         |
| 2                           | TMVW-t  | MT20   | 4.0 | 8.0  | 1.75 3.00 |
| 3, 5, 8                     |         |        |     |      |           |
| 3                           | TMWW-t  | MT20   | 3.0 | 4.0  | 1.50 1.75 |
| 4                           | TS-t    | MT20   | 3.0 | 6.0  |           |
| 6                           | TTW+p   | MT20   | 4.0 | 5.0  |           |
| 7                           | TMWW+t  | MT20   | 3.0 | 4.0  | 2.00 0.75 |
| 9                           | TTWWW-m | MT20   | 4.0 | 10.0 | 2.00 4.50 |
| 10                          | TTW-m   | MT20   | 4.0 | 5.0  | 1.75 2.50 |
| 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                          | BMWWW-t | MT20   | 4.0 | 10.0 | 1.75 3.50 |
| 15                          | BMW+w   | MT20   | 2.0 | 4.0  |           |
| 16                          | BMWW-t  | MT20   | 3.0 | 4.0  |           |
| 17                          | BS-t    | MT20   | 3.0 | 6.0  |           |
| 18                          | BMWW+t  | MT20   | 3.0 | 4.0  |           |
| 19                          | BMWWW-t | MT20   | 4.0 | 6.0  | 1.50 3.00 |
| 20                          | BS-t    | MT20   | 3.0 | 6.0  |           |
| 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.

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

| BEARINGS |                | FACTORED |      | MAXIMUM FACTORED |      | INPUT  |       | REQRD |       |
|----------|----------------|----------|------|------------------|------|--------|-------|-------|-------|
| JT       | GROSS REACTION | DOWN     | HORZ | DOWN             | HORZ | UPLIFT | IN-SX | BRG   | IN-SX |
| 23       | 1871           | 0        | 0    | 1871             | 0    | 0      | 5-8   | 5-8   |       |
| 13       | 1852           | 0        | 0    | 1852             | 0    | 0      | 5-8   | 5-8   |       |

| UNFACTORED REACTIONS |          | 1ST LCASE |       | MAX./MIN. COMPONENT REACTIONS |       | LIVE  |       | PERM. LIVE |       | WIND  |       | DEAD    |       | SOIL  |       |
|----------------------|----------|-----------|-------|-------------------------------|-------|-------|-------|------------|-------|-------|-------|---------|-------|-------|-------|
| JT                   | COMBINED | SNOW      |       |                               |       |       |       |            |       |       |       |         |       |       |       |
| 23                   | 1310     | 932 / 0   | 0 / 0 | 0 / 0                         | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 0 / 0 | 0 / 0 | 378 / 0 | 0 / 0 | 0 / 0 | 0 / 0 |
| 13                   | 1297     | 921 / 0   | 0 / 0 | 0 / 0                         | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 0 / 0 | 0 / 0 | 376 / 0 | 0 / 0 | 0 / 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 = 3.96 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 5-19. DBS = 20-0-0. CBF = 83 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-19. DBS = 18-0-0. CBF = 93 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: (3)     |                | C H O R D S        |       | W E B S                   |               |
|---------|---------------------------|---------------------------|----------------|--------------------|-------|---------------------------|---------------|
| MEMB.   | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. CSI (LC)  | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. CSI (LC) |
| FR-TO   |                           | FROM                      | TO             |                    | FR-TO |                           |               |
| 1-2     | 0 / 28                    | -77.3                     | -77.3 0.14 (1) | 10.00              | 22-3  | -262 / 19                 | 0.07 (1)      |
| 2-3     | -2527 / 0                 | -77.3                     | -77.3 0.46 (1) | 3.96               | 3-21  | -242 / 0                  | 0.23 (1)      |
| 3-4     | -2323 / 0                 | -77.3                     | -77.3 0.38 (1) | 4.19               | 21-5  | 0 / 236                   | 0.05 (1)      |
| 4-5     | -2323 / 0                 | -77.3                     | -77.3 0.38 (1) | 4.19               | 5-19  | -668 / 0                  | 0.37 (1)      |
| 5-6     | -1861 / 0                 | -77.3                     | -77.3 0.37 (1) | 4.58               | 19-6  | 0 / 1327                  | 0.30 (1)      |
| 6-7     | -1855 / 0                 | -77.3                     | -77.3 0.21 (1) | 4.75               | 19-7  | -828 / 0                  | 0.44 (1)      |
| 7-8     | -2305 / 0                 | -77.3                     | -77.3 0.22 (1) | 4.35               | 18-7  | 0 / 554                   | 0.12 (1)      |
| 8-9     | -2735 / 0                 | -77.3                     | -77.3 0.26 (1) | 4.00               | 18-8  | -633 / 0                  | 0.57 (1)      |
| 9-10    | -2296 / 0                 | -77.3                     | -77.3 0.07 (1) | 4.48               | 16-8  | 0 / 316                   | 0.07 (1)      |
| 10-11   | -2519 / 0                 | -77.3                     | -77.3 0.31 (1) | 4.09               | 16-9  | -375 / 0                  | 0.19 (1)      |
| 11-12   | 0 / 23                    | -77.3                     | -77.3 0.10 (1) | 10.00              | 15-9  | -4 / 21                   | 0.01 (3)      |
| 23-2    | -1826 / 0                 | 0.0                       | 0.0 0.19 (1)   | 6.20               | 9-14  | -1281 / 0                 | 0.28 (1)      |
| 13-11   | -1814 / 0                 | 0.0                       | 0.0 0.18 (1)   | 6.21               | 14-10 | 0 / 895                   | 0.20 (1)      |
|         |                           |                           |                |                    | 2-22  | 0 / 2307                  | 0.52 (1)      |
|         |                           |                           |                |                    | 14-11 | 0 / 2286                  | 0.51 (1)      |
| 23-22   | 0 / 0                     | -17.5                     | -17.5 0.14 (3) | 10.00              |       |                           |               |
| 22-21   | 0 / 2277                  | -17.5                     | -17.5 0.42 (1) | 10.00              |       |                           |               |
| 21-20   | 0 / 2077                  | -17.5                     | -17.5 0.40 (1) | 10.00              |       |                           |               |
| 20-19   | 0 / 2077                  | -17.5                     | -17.5 0.40 (1) | 10.00              |       |                           |               |
| 19-18   | 0 / 2061                  | -17.5                     | -17.5 0.40 (1) | 10.00              |       |                           |               |
| 18-17   | 0 / 2461                  | -17.5                     | -17.5 0.44 (1) | 10.00              |       |                           |               |
| 17-16   | 0 / 2461                  | -17.5                     | -17.5 0.44 (1) | 10.00              |       |                           |               |
| 16-15   | 0 / 2763                  | -17.5                     | -17.5 0.50 (1) | 10.00              |       |                           |               |
| 15-14   | 0 / 2763                  | -17.5                     | -17.5 0.48 (1) | 10.00              |       |                           |               |
| 14-13   | 0 / 0                     | -17.5                     | -17.5 0.08 (3) | 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

LOADING IN ALL FLAT SECTIONS 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 (1.23")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.17")  
ALLOWABLE DEFL.(TL)= L/360 (1.23")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.30")

CSI: TC=0.46 (2-3:1), BC=0.50 (15-16:1), WB=0.57 (8-18:1), SSI=0.19 (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) SHEAR SECTION (PSI) (PLI) (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.

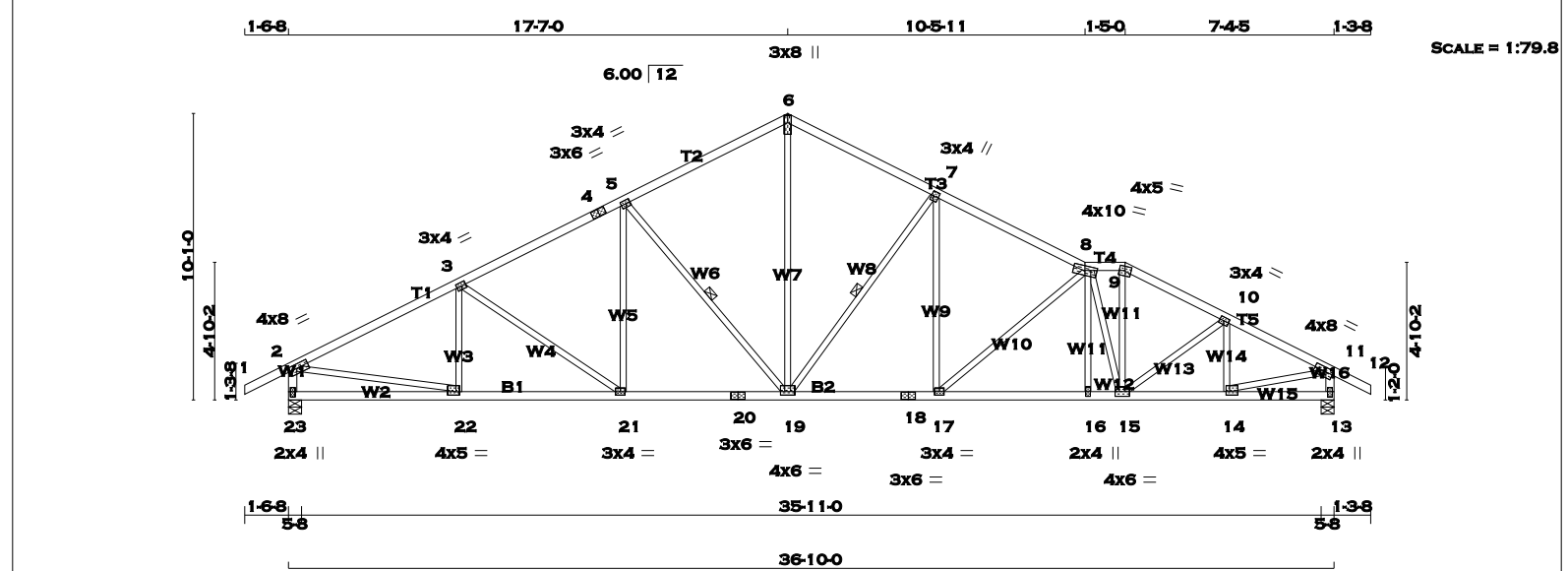
JSI GRIP= 0.90 (9) (INPUT = 0.90 )  
JSI METAL= 0.79 (9) (INPUT = 1.00 )



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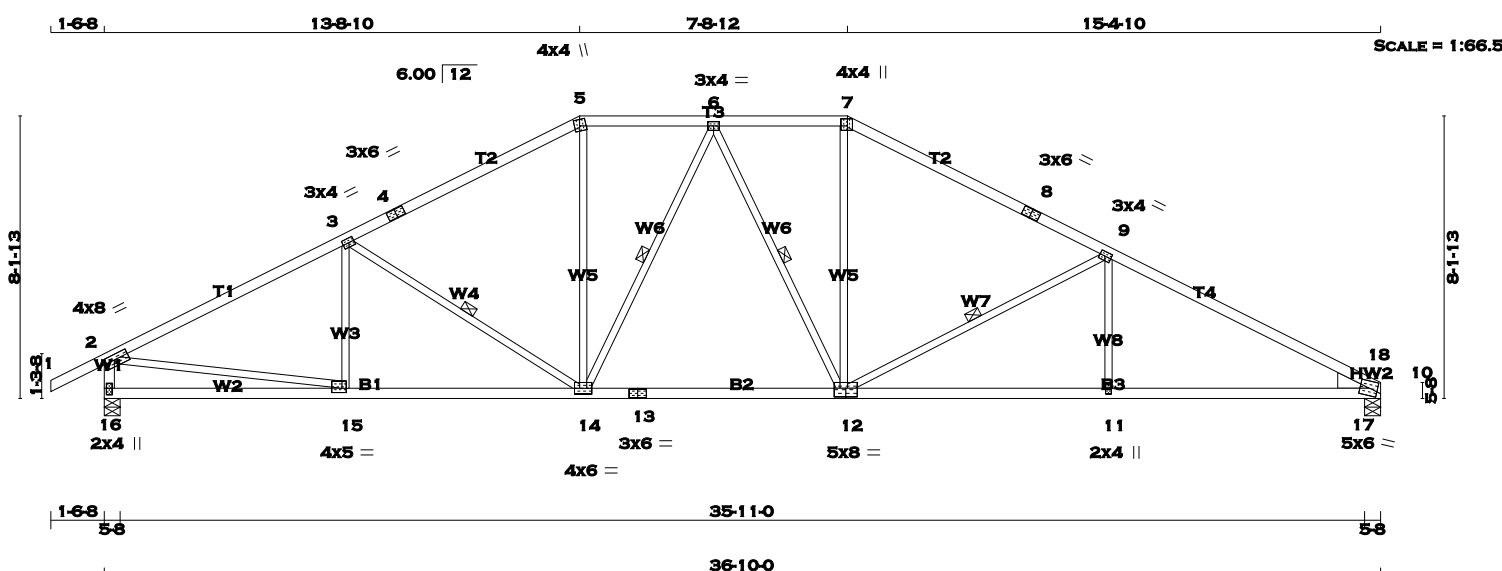
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



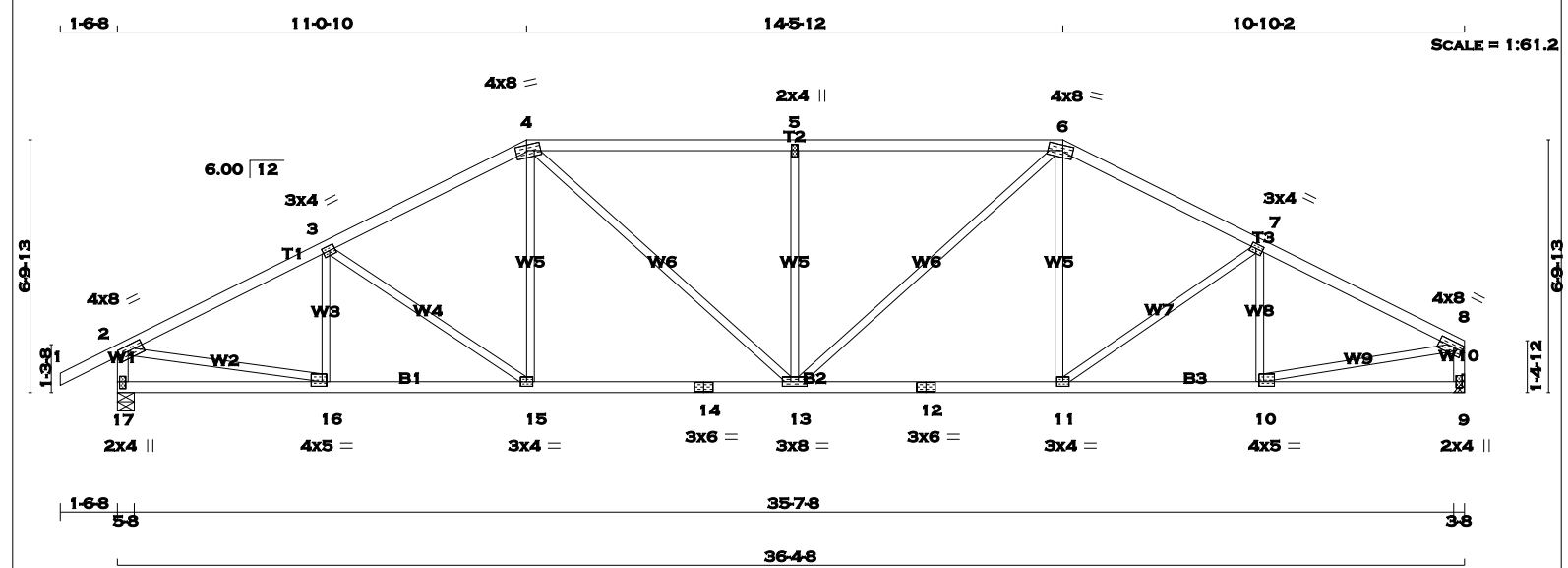


| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE<br>1 - 4 2x4 DRY No.2<br>4 - 6 2x4 DRY No.2<br>6 - 8 2x4 DRY No.2<br>8 - 9 2x4 DRY No.2<br>9 - 12 2x4 DRY No.2<br>23- 2 2x4 DRY No.2<br>13- 11 2x4 DRY No.2<br>23- 20 2x4 DRY No.2<br>20- 18 2x4 DRY No.2<br>18- 13 2x4 DRY No.2<br><br>ALL WEBS 2x3 DRY No.2<br>EXCEPT<br><br>DRY: SEASONED LUMBER. |                           |                           |               |       | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br>FACTORED GROSS REACTION<br>JT VERT HORZ<br>23 1871 0<br>13 1852 0<br><br>MAXIMUM FACTORED GROSS REACTION<br>DOWN HORZ UPLIFT IN-SX<br>1871 0 0<br>1852 0 0<br><br>INPUT BRG<br>5-8 5-8<br>5-8 5-8<br><br>REQRD BRG<br>5-8 5-8<br>5-8 5-8<br><br><b>UNFACTORED REACTIONS</b><br>1ST LCASE MAX./MIN. COMPONENT REACTIONS<br>JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL<br>23 1310 932 / 0 0 / 0 0 / 0 378 / 0 0 / 0<br>13 1297 921 / 0 0 / 0 0 / 0 376 / 0 0 / 0<br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 23, 13<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.96 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.<br><br>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-19. DBS = 20-0-0 . CBF = 84 LBS.<br>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-19. DBS = 16-0-0 . CBF = 87 LBS.<br><br>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.<br><br>END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW<br><br><b>LOADING</b><br>TOTAL LOAD CASES: (3)<br><br><table><tr><th colspan="4">CHORDS</th><th colspan="4">WEBS</th></tr><tr><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>FACTORED VERT. LOAD (PLF)</th><th>MAX. CSI (LC)</th><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX. UNBRACED LENGTH</th><th>MAX. FACTORED CSI (LC)</th></tr><tr><td>FR-TO</td><td></td><td>FROM TO</td><td></td><td>FR-TO</td><td></td><td></td><td></td></tr><tr><td>1- 2</td><td>0 / 28</td><td>-77.3 -77.3</td><td>0.14 (1)</td><td>10.00</td><td>22- 3</td><td>-262 / 19</td><td>0.07 (1)</td></tr><tr><td>2- 3</td><td>-2527 / 0</td><td>-77.3 -77.3</td><td>0.46 (1)</td><td>3.96</td><td>3-21</td><td>-242 / 0</td><td>0.23 (1)</td></tr><tr><td>3- 4</td><td>-2323 / 0</td><td>-77.3 -77.3</td><td>0.38 (1)</td><td>4.19</td><td>21- 5</td><td>0 / 236</td><td>0.05 (1)</td></tr><tr><td>4- 5</td><td>-2323 / 0</td><td>-77.3 -77.3</td><td>0.38 (1)</td><td>4.19</td><td>5-19</td><td>-668 / 0</td><td>0.37 (1)</td></tr><tr><td>5- 6</td><td>-1861 / 0</td><td>-77.3 -77.3</td><td>0.37 (1)</td><td>4.58</td><td>19- 6</td><td>0 / 1311</td><td>0.30 (1)</td></tr><tr><td>6- 7</td><td>-1863 / 0</td><td>-77.3 -77.3</td><td>0.32 (1)</td><td>4.61</td><td>19- 7</td><td>-867 / 0</td><td>0.47 (1)</td></tr><tr><td>7- 8</td><td>-2391 / 0</td><td>-77.3 -77.3</td><td>0.36 (1)</td><td>4.13</td><td>17- 7</td><td>0 / 452</td><td>0.10 (1)</td></tr><tr><td>8- 9</td><td>-2293 / 0</td><td>-77.3 -77.3</td><td>0.07 (1)</td><td>4.49</td><td>17- 8</td><td>-540 / 0</td><td>0.50 (1)</td></tr><tr><td>9-10</td><td>-2553 / 0</td><td>-77.3 -77.3</td><td>0.18 (1)</td><td>4.19</td><td>16- 8</td><td>0 / 66</td><td>0.02 (3)</td></tr><tr><td>10-11</td><td>-2436 / 0</td><td>-77.3 -77.3</td><td>0.19 (1)</td><td>4.27</td><td>8-15</td><td>-992 / 0</td><td>0.36 (1)</td></tr><tr><td>11-12</td><td>0 / 23</td><td>-77.3 -77.3</td><td>0.10 (1)</td><td>10.00</td><td>15- 9</td><td>0 / 975</td><td>0.22 (1)</td></tr><tr><td>23- 2</td><td>-1826 / 0</td><td>0.0 0.0</td><td>0.19 (1)</td><td>6.20</td><td>15-10</td><td>0 / 102</td><td>0.02 (1)</td></tr><tr><td>13-11</td><td>-1816 / 0</td><td>0.0 0.0</td><td>0.18 (1)</td><td>6.21</td><td>14-10</td><td>-445 / 0</td><td>0.08 (1)</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>2-22</td><td>0 / 2307</td><td>0.52 (1)</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>14-11</td><td>0 / 2244</td><td>0.51 (1)</td></tr><tr><td>23-22</td><td>0 / 0</td><td>-17.5 -17.5</td><td>0.14 (3)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>22-21</td><td>0 / 2277</td><td>-17.5 -17.5</td><td>0.42 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>21-20</td><td>0 / 2077</td><td>-17.5 -17.5</td><td>0.40 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>20-19</td><td>0 / 2077</td><td>-17.5 -17.5</td><td>0.40 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>19-18</td><td>0 / 2159</td><td>-17.5 -17.5</td><td>0.41 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>18-17</td><td>0 / 2159</td><td>-17.5 -17.5</td><td>0.41 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>17-16</td><td>0 / 2567</td><td>-17.5 -17.5</td><td>0.48 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>16-15</td><td>0 / 2568</td><td>-17.5 -17.5</td><td>0.46 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>15-14</td><td>0 / 2189</td><td>-17.5 -17.5</td><td>0.40 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>14-13</td><td>0 / 0</td><td>-17.5 -17.5</td><td>0.05 (3)</td><td>10.00</td><td></td><td></td><td></td></tr></table> |                      |                        |  |  | CHORDS |  |  |  | WEBS |  |  |  | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. CSI (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH | MAX. FACTORED CSI (LC) | FR-TO |  | FROM TO |  | FR-TO |  |  |  | 1- 2 | 0 / 28 | -77.3 -77.3 | 0.14 (1) | 10.00 | 22- 3 | -262 / 19 | 0.07 (1) | 2- 3 | -2527 / 0 | -77.3 -77.3 | 0.46 (1) | 3.96 | 3-21 | -242 / 0 | 0.23 (1) | 3- 4 | -2323 / 0 | -77.3 -77.3 | 0.38 (1) | 4.19 | 21- 5 | 0 / 236 | 0.05 (1) | 4- 5 | -2323 / 0 | -77.3 -77.3 | 0.38 (1) | 4.19 | 5-19 | -668 / 0 | 0.37 (1) | 5- 6 | -1861 / 0 | -77.3 -77.3 | 0.37 (1) | 4.58 | 19- 6 | 0 / 1311 | 0.30 (1) | 6- 7 | -1863 / 0 | -77.3 -77.3 | 0.32 (1) | 4.61 | 19- 7 | -867 / 0 | 0.47 (1) | 7- 8 | -2391 / 0 | -77.3 -77.3 | 0.36 (1) | 4.13 | 17- 7 | 0 / 452 | 0.10 (1) | 8- 9 | -2293 / 0 | -77.3 -77.3 | 0.07 (1) | 4.49 | 17- 8 | -540 / 0 | 0.50 (1) | 9-10 | -2553 / 0 | -77.3 -77.3 | 0.18 (1) | 4.19 | 16- 8 | 0 / 66 | 0.02 (3) | 10-11 | -2436 / 0 | -77.3 -77.3 | 0.19 (1) | 4.27 | 8-15 | -992 / 0 | 0.36 (1) | 11-12 | 0 / 23 | -77.3 -77.3 | 0.10 (1) | 10.00 | 15- 9 | 0 / 975 | 0.22 (1) | 23- 2 | -1826 / 0 | 0.0 0.0 | 0.19 (1) | 6.20 | 15-10 | 0 / 102 | 0.02 (1) | 13-11 | -1816 / 0 | 0.0 0.0 | 0.18 (1) | 6.21 | 14-10 | -445 / 0 | 0.08 (1) |  |  |  |  |  | 2-22 | 0 / 2307 | 0.52 (1) |  |  |  |  |  | 14-11 | 0 / 2244 | 0.51 (1) | 23-22 | 0 / 0 | -17.5 -17.5 | 0.14 (3) | 10.00 |  |  |  | 22-21 | 0 / 2277 | -17.5 -17.5 | 0.42 (1) | 10.00 |  |  |  | 21-20 | 0 / 2077 | -17.5 -17.5 | 0.40 (1) | 10.00 |  |  |  | 20-19 | 0 / 2077 | -17.5 -17.5 | 0.40 (1) | 10.00 |  |  |  | 19-18 | 0 / 2159 | -17.5 -17.5 | 0.41 (1) | 10.00 |  |  |  | 18-17 | 0 / 2159 | -17.5 -17.5 | 0.41 (1) | 10.00 |  |  |  | 17-16 | 0 / 2567 | -17.5 -17.5 | 0.48 (1) | 10.00 |  |  |  | 16-15 | 0 / 2568 | -17.5 -17.5 | 0.46 (1) | 10.00 |  |  |  | 15-14 | 0 / 2189 | -17.5 -17.5 | 0.40 (1) | 10.00 |  |  |  | 14-13 | 0 / 0 | -17.5 -17.5 | 0.05 (3) | 10.00 |  |  |  | <b>DESIGN CRITERIA</b><br><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF<br><br>SPACING = 24.0 IN./C/C<br><br>LOADING IN ALL FLAT SECTIONS BASED ON A SLOPE OF 6.00/12<br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>(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<br><br>ALLOWABLE DEFL.(LL)= L/360 (1.23")<br>CALCULATED VERT. DEFL.(LL) = L/ 999 (0.16")<br>ALLOWABLE DEFL.(TL)= L/360 (1.23")<br>CALCULATED VERT. DEFL.(TL) = L/ 999 (0.29")<br><br>CSI: TC=0.46 (2-3:1) , BC=0.48 (16-17:1) , WB=0.52 (2-22:1) , SSI=0.19 (2-3:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10<br>COMP=1.10 SHEAR=1.10 TENS= 1.10<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.90 (7) (INPUT = 0.90 )<br>JSI METAL= 0.68 (22) (INPUT = 1.00 ) |  |  |  |  |
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| CHORDS                                                                                                                                                                                                                                                                                                                                                 |                           |                           |               | WEBS  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |
| MEMB.                                                                                                                                                                                                                                                                                                                                                  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. CSI (LC) | MEMB. | MAX. FACTORED FORCE (LBS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | MAX. UNBRACED LENGTH | MAX. FACTORED CSI (LC) |  |  |        |  |  |  |      |  |  |  |       |                           |                           |               |       |                           |                      |                        |       |  |         |  |       |  |  |  |      |        |             |          |       |       |           |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |        |          |       |           |             |          |      |      |          |          |       |        |             |          |       |       |         |          |       |           |         |          |      |       |         |          |       |           |         |          |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |
| FR-TO                                                                                                                                                                                                                                                                                                                                                  |                           | FROM TO                   |               | FR-TO |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |
| 1- 2                                                                                                                                                                                                                                                                                                                                                   | 0 / 28                    | -77.3 -77.3               | 0.14 (1)      | 10.00 | 22- 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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| 2- 3                                                                                                                                                                                                                                                                                                                                                   | -2527 / 0                 | -77.3 -77.3               | 0.46 (1)      | 3.96  | 3-21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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| 3- 4                                                                                                                                                                                                                                                                                                                                                   | -2323 / 0                 | -77.3 -77.3               | 0.38 (1)      | 4.19  | 21- 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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| 4- 5                                                                                                                                                                                                                                                                                                                                                   | -2323 / 0                 | -77.3 -77.3               | 0.38 (1)      | 4.19  | 5-19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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| 5- 6                                                                                                                                                                                                                                                                                                                                                   | -1861 / 0                 | -77.3 -77.3               | 0.37 (1)      | 4.58  | 19- 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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| 6- 7                                                                                                                                                                                                                                                                                                                                                   | -1863 / 0                 | -77.3 -77.3               | 0.32 (1)      | 4.61  | 19- 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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| 7- 8                                                                                                                                                                                                                                                                                                                                                   | -2391 / 0                 | -77.3 -77.3               | 0.36 (1)      | 4.13  | 17- 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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| 8- 9                                                                                                                                                                                                                                                                                                                                                   | -2293 / 0                 | -77.3 -77.3               | 0.07 (1)      | 4.49  | 17- 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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| 9-10                                                                                                                                                                                                                                                                                                                                                   | -2553 / 0                 | -77.3 -77.3               | 0.18 (1)      | 4.19  | 16- 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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| 10-11                                                                                                                                                                                                                                                                                                                                                  | -2436 / 0                 | -77.3 -77.3               | 0.19 (1)      | 4.27  | 8-15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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| 11-12                                                                                                                                                                                                                                                                                                                                                  | 0 / 23                    | -77.3 -77.3               | 0.10 (1)      | 10.00 | 15- 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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| 23- 2                                                                                                                                                                                                                                                                                                                                                  | -1826 / 0                 | 0.0 0.0                   | 0.19 (1)      | 6.20  | 15-10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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| 13-11                                                                                                                                                                                                                                                                                                                                                  | -1816 / 0                 | 0.0 0.0                   | 0.18 (1)      | 6.21  | 14-10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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|                                                                                                                                                                                                                                                                                                                                                        |                           |                           |               |       | 2-22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0 / 2244             | 0.51 (1)               |  |  |        |  |  |  |      |  |  |  |       |                           |                           |               |       |                           |                      |                        |       |  |         |  |       |  |  |  |      |        |             |          |       |       |           |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |         |          |      |         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| 23-22                                                                                                                                                                                                                                                                                                                                                  | 0 / 0                     | -17.5 -17.5               | 0.14 (3)      | 10.00 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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| 22-21                                                                                                                                                                                                                                                                                                                                                  | 0 / 2277                  | -17.5 -17.5               | 0.42 (1)      | 10.00 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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| 21-20                                                                                                                                                                                                                                                                                                                                                  | 0 / 2077                  | -17.5 -17.5               | 0.40 (1)      | 10.00 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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| 20-19                                                                                                                                                                                                                                                                                                                                                  | 0 / 2077                  | -17.5 -17.5               | 0.40 (1)      | 10.00 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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| 19-18                                                                                                                                                                                                                                                                                                                                                  | 0 / 2159                  | -17.5 -17.5               | 0.41 (1)      | 10.00 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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| 18-17                                                                                                                                                                                                                                                                                                                                                  | 0 / 2159                  | -17.5 -17.5               | 0.41 (1)      | 10.00 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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  |             |          |      |      |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |        |          |       |           |             |          |      |      |          |          |       |        |             |          |       |       |         |          |       |           |         |          |      |       |         |          |       |           |         |          |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |    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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |
| 17-16                                                                                                                                                                                                                                                                                                                                                  | 0 / 2567                  | -17.5 -17.5               | 0.48 (1)      | 10.00 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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  |             |          |      |      |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |        |          |       |           |             |          |      |      |          |          |       |        |             |          |       |       |         |          |       |           |         |          |      |       |         |          |       |           |         |          |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |    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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |
| 16-15                                                                                                                                                                                                                                                                                                                                                  | 0 / 2568                  | -17.5 -17.5               | 0.46 (1)      | 10.00 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |
| 15-14                                                                                                                                                                                                                                                                                                                                                  | 0 / 2189                  | -17.5 -17.5               | 0.40 (1)      | 10.00 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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  |             |          |      |      |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |        |          |       |           |             |          |      |      |          |          |       |        |             |          |       |       |         |          |       |           |         |          |      |       |         |          |       |           |         |          |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |    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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |
| 14-13                                                                                                                                                                                                                                                                                                                                                  | 0 / 0                     | -17.5 -17.5               | 0.05 (3)      | 10.00 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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  |             |          |      |      |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |        |          |       |           |             |          |      |      |          |          |       |        |             |          |       |       |         |          |       |           |         |          |      |       |         |          |       |           |         |          |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |    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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |
|                                                                                                                                                                                                                                                                      |                           |                           |               |       | <div>RECEIVED<br/>TOWN OF MILTON<br/>MAR 29, 2017<br/>17-5010<br/>BUILDING DIVISION</div> <div>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.</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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      |         |          |       |           |         |          |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |





|                                    |  |             |               |                                                                                                      |                 |                                      |          |                  |       |           |        |                        |                  |       |                       |                                                     |
|------------------------------------|--|-------------|---------------|------------------------------------------------------------------------------------------------------|-----------------|--------------------------------------|----------|------------------|-------|-----------|--------|------------------------|------------------|-------|-----------------------|-----------------------------------------------------|
| TOTAL WEIGHT = 144 LB              |  |             |               |                                                                                                      |                 |                                      |          |                  |       |           |        |                        |                  |       |                       |                                                     |
| <b>LUMBER</b><br>N. L. G. A. RULES |  |             |               | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b> |                 |                                      |          |                  |       |           |        | <b>DESIGN CRITERIA</b> |                  |       |                       |                                                     |
| <b>CHORDS</b>                      |  | <b>SIZE</b> | <b>LUMBER</b> | <b>DESCR.</b>                                                                                        | <b>BEARINGS</b> |                                      |          |                  |       |           |        |                        |                  |       |                       |                                                     |
| 1 - 4                              |  | 2x4         | DRY           | No.2                                                                                                 | SPF             | FACTORED                             |          | MAXIMUM FACTORED |       | INPUT     | REQRD  |                        |                  |       |                       |                                                     |
| 4 - 5                              |  | 2x4         | DRY           | No.2                                                                                                 | SPF             | GROSS REACTION                       |          | GROSS REACTION   |       | BRG       | BRG    | HEEL                   | SPECIFIED LOADS: |       |                       |                                                     |
| 5 - 7                              |  | 2x4         | DRY           | No.2                                                                                                 | SPF             | JT                                   | VERT     | HORZ             | DOWN  | HORZ      | UPLIFT | IN-SX                  | IN-SX            | WEDGE | TOP CH. LL = 23.3 PSF |                                                     |
| 7 - 8                              |  | 2x4         | DRY           | No.2                                                                                                 | SPF             | 16                                   | 1871     | 0                | 1871  | 0         | 0      | 5-8                    | 5-8              |       | DL = 3.0 PSF          |                                                     |
| 8 - 10                             |  | 2x4         | DRY           | No.2                                                                                                 | SPF             | 10                                   | 1747     | 0                | 1747  | 0         | 0      | 5-8                    | 5-8              | 2x6 R | BOT CH. LL = 0.0 PSF  |                                                     |
| 16 - 2                             |  | 2x4         | DRY           | No.2                                                                                                 | SPF             |                                      |          |                  |       |           |        |                        |                  |       |                       | DL = 7.0 PSF                                        |
| 16 - 13                            |  | 2x4         | DRY           | No.2                                                                                                 | SPF             |                                      |          |                  |       |           |        |                        |                  |       |                       | TOTAL LOAD = 33.3 PSF                               |
| 13 - 12                            |  | 2x4         | DRY           | No.2                                                                                                 | SPF             | <b>UNFACTORED REACTIONS</b>          |          |                  |       |           |        |                        |                  |       |                       |                                                     |
| 12 - 10                            |  | 2x4         | DRY           | No.2                                                                                                 | SPF             | <b>1ST LCASE</b>                     |          |                  |       |           |        |                        |                  |       |                       |                                                     |
|                                    |  |             |               |                                                                                                      |                 | <b>MAX./MIN. COMPONENT REACTIONS</b> |          |                  |       |           |        |                        |                  |       |                       |                                                     |
|                                    |  |             |               |                                                                                                      |                 | JT                                   | COMBINED | SNOW             | LIVE  | PERM.LIVE | WIND   | DEAD                   | SOIL             |       |                       |                                                     |
|                                    |  |             |               |                                                                                                      |                 | 16                                   | 1310     | 932 / 0          | 0 / 0 | 0 / 0     | 0 / 0  | 378 / 0                | 0 / 0            |       |                       |                                                     |
|                                    |  |             |               |                                                                                                      |                 | 10                                   | 1226     | 858 / 0          | 0 / 0 | 0 / 0     | 0 / 0  | 368 / 0                | 0 / 0            |       |                       |                                                     |
| ALL WEBS EXCEPT                    |  | 2x3         | DRY           | No.2                                                                                                 | SPF             |                                      |          |                  |       |           |        |                        |                  |       |                       | LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12 |



TOTAL WEIGHT = 145 lb  
[M][F]

| LUMBER                |      |        |        |
|-----------------------|------|--------|--------|
| N. L. G. A. RULES     |      |        |        |
| CHORDS                | SIZE | LUMBER | DESCR. |
| 1 - 4                 | 2x4  | DRY    | No.2   |
| 4 - 6                 | 2x4  | DRY    | No.2   |
| 6 - 8                 | 2x4  | DRY    | No.2   |
| 17 - 2                | 2x4  | DRY    | No.2   |
| 9 - 8                 | 2x4  | DRY    | No.2   |
| 17 - 14               | 2x4  | DRY    | No.2   |
| 14 - 12               | 2x4  | DRY    | No.2   |
| 12 - 9                | 2x4  | DRY    | No.2   |
| 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                                                                                | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 4                                                                                | TTWW-m | MT20   | 4.0 | 8.0 | 1.75 3.50 |
| 5                                                                                | TMVW-w | MT20   | 2.0 | 4.0 |           |
| 6                                                                                | TTWW-m | MT20   | 4.0 | 8.0 | 1.75 3.25 |
| 7                                                                                | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 8                                                                                | TMVW-t | MT20   | 4.0 | 8.0 | 1.75 Edge |
| 9                                                                                | BMV1+p | MT20   | 2.0 | 4.0 |           |
| 10                                                                               | BMVW-t | MT20   | 4.0 | 5.0 | 1.50 1.50 |
| 11                                                                               | BMVW-t | MT20   | 3.0 | 4.0 |           |
| 12                                                                               | BS-t   | MT20   | 3.0 | 6.0 |           |
| 13                                                                               | BMVW-t | MT20   | 3.0 | 8.0 |           |
| 14                                                                               | BS-t   | MT20   | 3.0 | 6.0 |           |
| 15                                                                               | BMVW-t | MT20   | 3.0 | 4.0 |           |
| 16                                                                               | BMVW-t | MT20   | 4.0 | 5.0 | 1.50 1.50 |
| 17                                                                               | BMV1+p | MT20   | 2.0 | 4.0 | 2.25 1.00 |
| 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. |        |        |     |     |           |



| 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     |
| 17                                                                                            | 1849 | 0    | 1849                            | 0    | 0      | 5-8              | 5-8       |
| 9                                                                                             | 1725 | 0    | 1725                            | 0    | 0      | HANGER BY OTHERS |           |
| MIN. SEAT SIZE: 3-8                                                                           |      |      |                                 |      |        |                  |           |

| UNFACTORED REACTIONS |           |           |       |       |           |       |         |
|----------------------|-----------|-----------|-------|-------|-----------|-------|---------|
| JT                   | 1ST LCASE | MAX./MIN. | SNOW  | LIVE  | PERM.LIVE | WIND  | DEAD    |
| 17                   | 1295      | 922 / 0   | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 373 / 0 |
| 9                    | 1211      | 847 / 0   | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 364 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 17

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.66 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: (3) |                           |                           |                           |
| CHORDS                |                           |                           |                           |
| MEMB.                 | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) |
| FR-TO                 | FROM                      | TO                        | FR-TO                     |
| 1-2                   | 0 / 28                    | -77.3 -77.3               | 0.14 (1) 10.00            |
| 2-3                   | -2483 / 0                 | -77.3 -77.3               | 0.40 (1) 4.03             |
| 3-4                   | -2308 / 0                 | -77.3 -77.3               | 0.38 (1) 4.17             |
| 4-5                   | -2489 / 0                 | -77.3 -77.3               | 0.67 (1) 3.66             |
| 5-6                   | -2489 / 0                 | -77.3 -77.3               | 0.67 (1) 3.66             |
| 6-7                   | -2283 / 0                 | -77.3 -77.3               | 0.36 (1) 4.21             |
| 7-8                   | -2410 / 0                 | -77.3 -77.3               | 0.38 (1) 4.10             |
| 17-2                  | -1805 / 0                 | 0.0 0.0                   | 0.18 (1) 6.23             |
| 9-8                   | -1682 / 0                 | 0.0 0.0                   | 0.17 (1) 6.40             |
| 17-16                 | 0 / 0                     | -17.5 -17.5               | 0.11 (3) 10.00            |
| 16-15                 | 0 / 2240                  | -17.5 -17.5               | 0.44 (1) 10.00            |
| 15-14                 | 0 / 2047                  | -17.5 -17.5               | 0.42 (1) 10.00            |
| 14-13                 | 0 / 2047                  | -17.5 -17.5               | 0.42 (1) 10.00            |
| 13-12                 | 0 / 2025                  | -17.5 -17.5               | 0.42 (1) 10.00            |
| 12-11                 | 0 / 2025                  | -17.5 -17.5               | 0.42 (1) 10.00            |
| 11-10                 | 0 / 2175                  | -17.5 -17.5               | 0.43 (1) 10.00            |
| 10-9                  | 0 / 0                     | -17.5 -17.5               | 0.11 (3) 10.00            |
| WEBS                  |                           |                           |                           |
| MEMB.                 | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC) | FR-TO                     |
| 16-3                  | -295 / 2                  | 0.08 (1)                  | 10.00                     |
| 3-15                  | -240 / 0                  | 0.20 (1)                  | 4.03                      |
| 15-4                  | 0 / 252                   | 0.06 (1)                  | 4.17                      |
| 4-13                  | 0 / 596                   | 0.13 (1)                  | 3.66                      |
| 13-5                  | -690 / 0                  | 0.54 (1)                  | 3.66                      |
| 13-6                  | 0 / 625                   | 0.14 (1)                  | 4.21                      |
| 11-6                  | 0 / 224                   | 0.05 (3)                  | 4.10                      |
| 11-7                  | -188 / 0                  | 0.15 (1)                  | 6.23                      |
| 10-7                  | -333 / 0                  | 0.09 (1)                  | 6.40                      |
| 2-16                  | 0 / 2274                  | 0.51 (1)                  | 10.00                     |
| 10-8                  | 0 / 2216                  | 0.50 (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

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 (1.21")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.15")  
ALLOWABLE DEFL.(TL)= L/360 (1.21")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.28")

CSI: TC=0.67 (4-5:1), BC=0.44 (15-16:1), WB=0.54 (5-13:1), SSI=0.27 (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) | SHEAR | SECTION |         |           |
|             | (PSI)     | (PLI) | (PLI)   | 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= 0.88 (9) (INPUT = 0.90 )  
JSI METAL= 0.67 (16) (INPUT = 1.00 )

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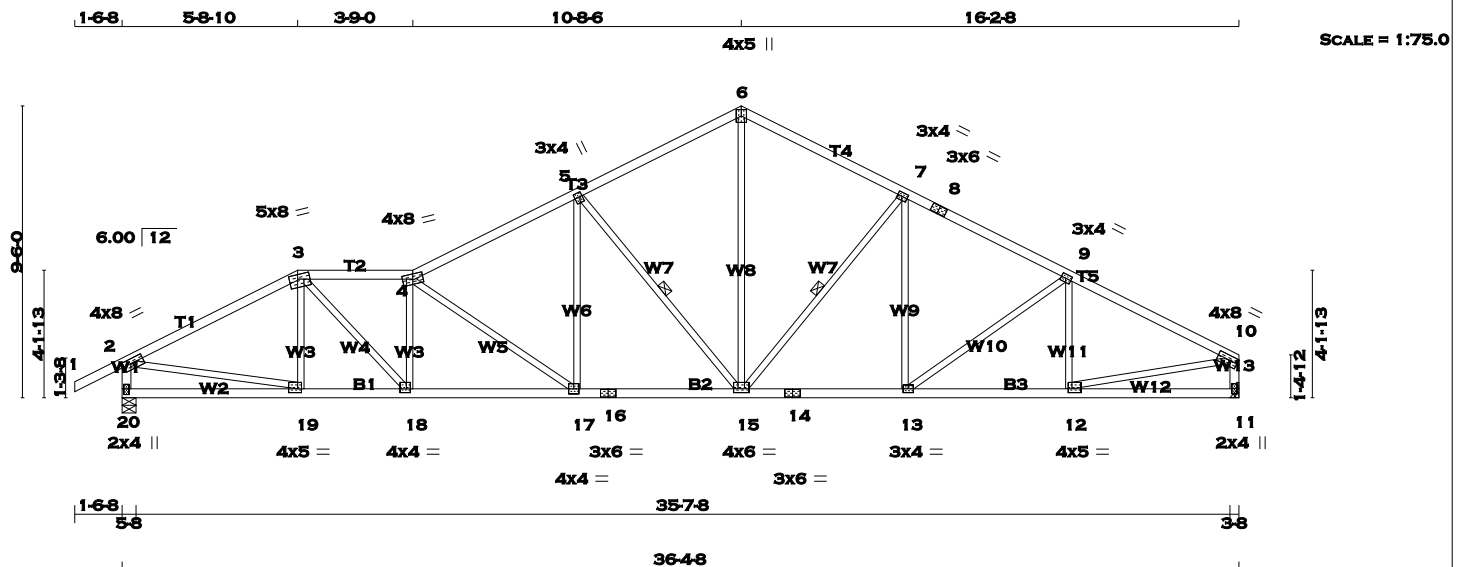
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.





JSI GRIP= 0.90 (16) (INPUT = 0.90 )  
JSI METAL= 0.72 (18) (INPUT = 1.00 )





TOTAL WEIGHT = 154 lb  
[M][F]

| LUMBER          |      |        |        | N. L. G. A. RULES |      |        |        |
|-----------------|------|--------|--------|-------------------|------|--------|--------|
| CHORDS          | SIZE | LUMBER | DESCR. | CHORDS            | SIZE | LUMBER | DESCR. |
| 1 - 3           | 2x4  | DRY    | No.2   | 1 - 3             | 2x4  | DRY    | No.2   |
| 3 - 4           | 2x4  | DRY    | No.2   | 3 - 4             | 2x4  | DRY    | No.2   |
| 4 - 6           | 2x4  | DRY    | No.2   | 4 - 6             | 2x4  | DRY    | No.2   |
| 6 - 8           | 2x4  | DRY    | No.2   | 6 - 8             | 2x4  | DRY    | No.2   |
| 8 - 10          | 2x4  | DRY    | No.2   | 8 - 10            | 2x4  | DRY    | No.2   |
| 20 - 2          | 2x4  | DRY    | No.2   | 20 - 2            | 2x4  | DRY    | No.2   |
| 11 - 10         | 2x4  | DRY    | No.2   | 11 - 10           | 2x4  | DRY    | No.2   |
| 20 - 16         | 2x4  | DRY    | No.2   | 20 - 16           | 2x4  | DRY    | No.2   |
| 16 - 14         | 2x4  | DRY    | No.2   | 16 - 14           | 2x4  | DRY    | No.2   |
| 14 - 11         | 2x4  | DRY    | No.2   | 14 - 11           | 2x4  | DRY    | No.2   |
| ALL WEBS EXCEPT | 2x3  | DRY    | No.2   | ALL WEBS EXCEPT   | 2x3  | DRY    | No.2   |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |        |        |     |     |           |
|-----------------------------|--------|--------|-----|-----|-----------|
| JT                          | TYPE   | PLATES | W   | LEN | X         |
| 2                           | TMVW-t | MT20   | 4.0 | 8.0 | 1.75 3.00 |
| 3                           | TTWW-m | MT20   | 5.0 | 8.0 | 1.75 3.25 |
| 4                           | TTWW-m | MT20   | 4.0 | 8.0 |           |
| 5                           | TMVW+t | MT20   | 3.0 | 4.0 | 1.75 0.75 |
| 6                           | TTW+p  | MT20   | 4.0 | 5.0 |           |
| 7                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 8                           | TS-t   | MT20   | 3.0 | 6.0 |           |
| 9                           | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.75 |
| 10                          | TMVW-t | MT20   | 4.0 | 8.0 | 1.75 Edge |
| 11                          | BMV1+p | MT20   | 2.0 | 4.0 |           |
| 12                          | BMVW-t | MT20   | 4.0 | 5.0 | 1.50 1.50 |
| 13                          | BMVW-t | MT20   | 3.0 | 4.0 |           |
| 14                          | BS-t   | MT20   | 3.0 | 6.0 |           |
| 15                          | BMVW+t | MT20   | 4.0 | 6.0 | 1.50 3.00 |
| 16                          | BS-t   | MT20   | 3.0 | 6.0 |           |
| 17                          | BMVW-t | MT20   | 4.0 | 4.0 |           |
| 18                          | BMVW-t | MT20   | 4.0 | 4.0 | 1.50 1.50 |
| 19                          | BMVW-t | MT20   | 4.0 | 5.0 | 1.50 1.50 |
| 20                          | BMV1+p | MT20   | 2.0 | 4.0 | 2.25 1.00 |

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.

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

| FACTORED |                |      | MAXIMUM FACTORED |      |        | INPUT            | REQRD               |
|----------|----------------|------|------------------|------|--------|------------------|---------------------|
| JT       | GROSS REACTION |      | GROSS REACTION   |      |        | BRG              | BRG                 |
|          | VERT           | HORZ | DOWN             | HORZ | UPLIFT | IN-SX            | IN-SX               |
| 20       | 1849           | 0    | 1849             | 0    | 0      | 5-8              | 5-8                 |
| 11       | 1725           | 0    | 1725             | 0    | 0      | HANGER BY OTHERS |                     |
|          |                |      |                  |      |        |                  | MIN. SEAT SIZE: 3-8 |

#### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |  |
|-----------|----------|-------------------------------|-------|-----------|-------|---------|-------|--|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |  |
| 20        | 1295     | 922 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 373 / 0 | 0 / 0 |  |
| 11        | 1211     | 847 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 364 / 0 | 0 / 0 |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 20

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.78 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 5-15. DBS = 14-0-0. CBF = 94 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-15. DBS = 20-0-0. CBF = 71 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: (3)

| C H O R D S |               |                  |                | W E B S |               |                  |            |
|-------------|---------------|------------------|----------------|---------|---------------|------------------|------------|
| MEMB.       | MAX. FACTORED | FACTORED         | VERT. LOAD     | MEMB.   | MAX. FACTORED | FACTORED         | VERT. LOAD |
| FR-TO       | FORCE (LBS)   | VERT. LOAD (PLF) | CSI (LC)       | FR-TO   | FORCE (LBS)   | VERT. LOAD (PLF) | CSI (LC)   |
| 1-2         | 0 / 28        | -77.3            | -77.3 0.14 (1) | 10-00   | 19-3          | -267 / 0         | 0.07 (1)   |
| 2-3         | -2437 / 0     | -77.3            | -77.3 0.44 (1) | 4-02    | 3-18          | 0 / 1368         | 0.31 (1)   |
| 3-4         | -3111 / 0     | -77.3            | -77.3 0.25 (1) | 3-78    | 18-4          | -933 / 0         | 0.24 (1)   |
| 4-5         | -2626 / 0     | -77.3            | -77.3 0.39 (1) | 3-94    | 4-17          | -944 / 0         | 0.76 (1)   |
| 5-6         | -1913 / 0     | -77.3            | -77.3 0.34 (1) | 4-55    | 17-5          | 0 / 651          | 0.15 (1)   |
| 6-7         | -1909 / 0     | -77.3            | -77.3 0.31 (1) | 4-59    | 5-15          | -1070 / 0        | 0.52 (1)   |
| 7-8         | -2295 / 0     | -77.3            | -77.3 0.32 (1) | 4-26    | 15-6          | 0 / 1366         | 0.31 (1)   |
| 8-9         | -2295 / 0     | -77.3            | -77.3 0.32 (1) | 4-26    | 15-7          | -569 / 0         | 0.27 (1)   |
| 9-10        | -2403 / 0     | -77.3            | -77.3 0.38 (1) | 4-11    | 13-7          | 0 / 171          | 0.04 (3)   |
| 20-2        | -1805 / 0     | 0.0              | 0.0 0.18 (1)   | 6-23    | 13-9          | -139 / 0         | 0.11 (1)   |
| 11-10       | -1683 / 0     | 0.0              | 0.0 0.17 (1)   | 6-40    | 12-9          | -323 / 0         | 0.08 (1)   |
|             |               |                  |                |         | 2-19          | 0 / 2209         | 0.50 (1)   |
|             |               |                  |                |         | 12-10         | 0 / 2206         | 0.50 (1)   |
| 20-19       | 0 / 0         | -17.5            | -17.5 0.12 (3) | 10-00   |               |                  |            |
| 19-18       | 0 / 2171      | -17.5            | -17.5 0.40 (1) | 10-00   |               |                  |            |
| 18-17       | 0 / 3136      | -17.5            | -17.5 0.57 (1) | 10-00   |               |                  |            |
| 17-16       | 0 / 2370      | -17.5            | -17.5 0.44 (1) | 10-00   |               |                  |            |
| 16-15       | 0 / 2370      | -17.5            | -17.5 0.44 (1) | 10-00   |               |                  |            |
| 15-14       | 0 / 2052      | -17.5            | -17.5 0.39 (1) | 10-00   |               |                  |            |
| 14-13       | 0 / 2052      | -17.5            | -17.5 0.39 (1) | 10-00   |               |                  |            |
| 13-12       | 0 / 2165      | -17.5            | -17.5 0.39 (1) | 10-00   |               |                  |            |
| 12-11       | 0 / 0         | -17.5            | -17.5 0.12 (3) | 10-00   |               |                  |            |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

LOADING IN ALL FLAT SECTIONS 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  
- TPC 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 (1.21")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.19")  
ALLOWABLE DEFL.(TL)= L/360 (1.21")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.34")

CSI: TC=0.44 (2-3:1), BC=0.57 (17-18:1), WB=0.76 (4-17:1), SSI=0.18 (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) SHEAR SECTION (PSI) (PLI) (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.

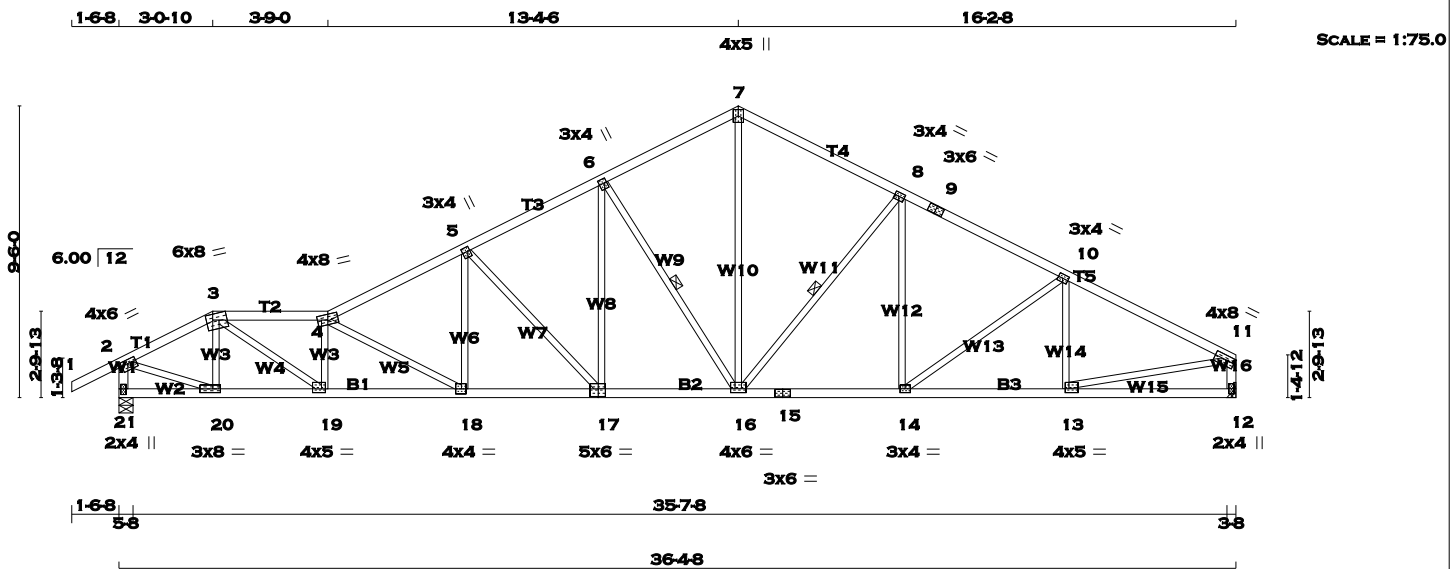
JSI GRIP= 0.88 (11) (INPUT = 0.90)  
JSI METAL= 0.65 (19) (INPUT = 1.00)



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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.





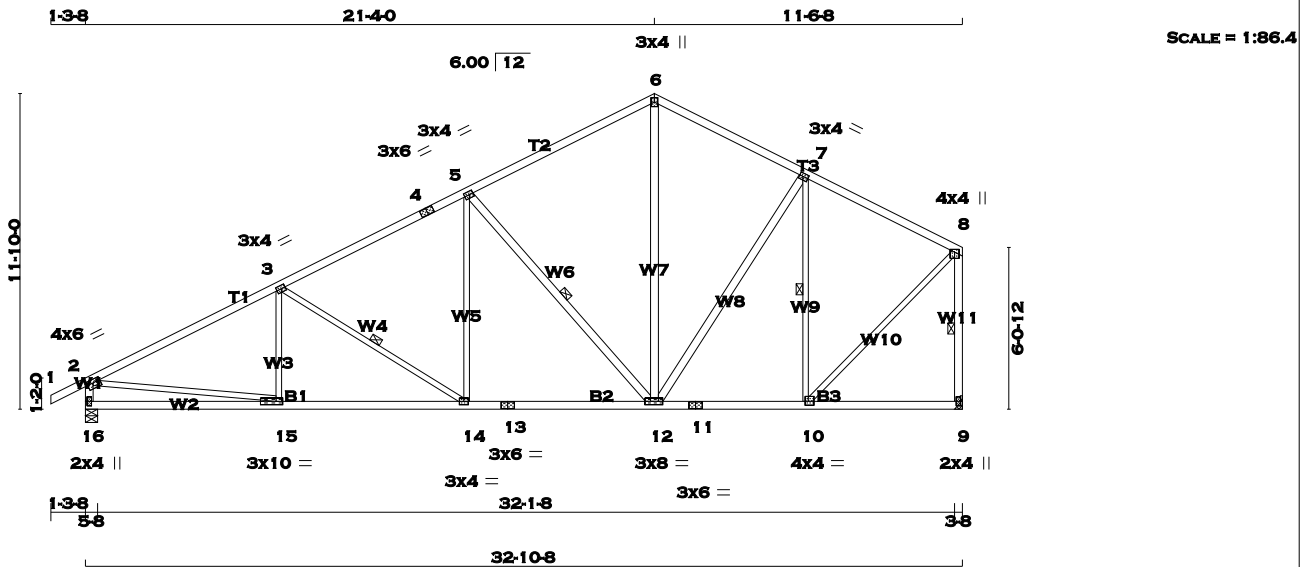
|                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  |
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| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR. SPF<br>1 - 3 2x4 DRY No.2<br>3 - 4 2x4 DRY No.2<br>4 - 7 2x4 DRY No.2<br>7 - 9 2x4 DRY No.2<br>9 - 11 2x4 DRY No.2<br>21 - 2 2x4 DRY No.2<br>12 - 11 2x4 DRY No.2<br>21 - 17 2x4 DRY No.2<br>17 - 15 2x4 DRY No.2<br>15 - 12 2x4 DRY No.2<br><br>ALL WEBS 2x3 DRY No.2<br>EXCEPT<br><br>DRY: SEASONED LUMBER. |  |  |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br>FACTORED MAXIMUM FACTORED INPUT REQD<br>GROSS REACTION GROSS REACTION BRG BRG<br>JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX<br>21 1849 0 1849 0 0 5-8 5-8<br>12 1725 0 1725 0 0 HANGER BY OTHERS<br>MIN. SEAT SIZE: 3-8<br><br><b>UNFACTORED REACTIONS</b><br>1ST LCASE MAX./MIN. COMPONENT REACTIONS<br>JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL<br>21 1295 922 / 0 0 / 0 0 / 0 373 / 0 0 / 0<br>12 1211 847 / 0 0 / 0 0 / 0 364 / 0 0 / 0<br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 21<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.44 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.<br><br>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 6-16. DBS = 14-0-0. CBF = 88 LBS.<br>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 8-16. DBS = 20-0-0. CBF = 71 LBS.<br><br>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.<br><br>END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW<br><br><b>LOADING</b><br>TOTAL LOAD CASES: (3)<br><br>C H O R D S W E B S<br>MAX. FACTORED MAX. FACTORED MAX. FACTORED<br>MEMB. FORCE VERT. LOAD LC1 MAX. MAX. MEMB. FORCE MAX.<br>(LBS) (PLF) CSI (LC) UNBRAC (LBS) CSI (LC)<br>FR-TO FROM TO LENGTH FR-TO<br>1-2 0 / 28 -77.3 -77.3 0.14 (1) 10.00 20-3 -525 / 0 0.09 (1)<br>2-3 -2182 / 0 -77.3 -77.3 0.15 (1) 4.51 3-19 0 / 2185 0.49 (1)<br>3-4 -3726 / 0 -77.3 -77.3 0.30 (1) 3.44 19-4 -1201 / 0 0.20 (1)<br>4-5 -3188 / 0 -77.3 -77.3 0.31 (1) 3.70 4-18 -1044 / 0 0.47 (1)<br>5-6 -2496 / 0 -77.3 -77.3 0.24 (1) 4.19 18-5 0 / 609 0.14 (1)<br>6-7 -1905 / 0 -77.3 -77.3 0.22 (1) 4.69 5-17 -925 / 0 0.71 (1)<br>7-8 -1908 / 0 -77.3 -77.3 0.31 (1) 4.59 17-6 0 / 740 0.17 (1)<br>8-9 -2295 / 0 -77.3 -77.3 0.32 (1) 4.26 6-16 -1005 / 0 0.47 (1)<br>9-10 -2295 / 0 -77.3 -77.3 0.32 (1) 4.26 16-7 0 / 1383 0.31 (1)<br>10-11 -2403 / 0 -77.3 -77.3 0.38 (1) 4.11 16-8 -570 / 0 0.28 (1)<br>21-2 -1829 / 0 0.0 0.0 0.19 (1) 6.19 14-8 0 / 171 0.04 (3)<br>12-11 -1683 / 0 0.0 0.0 0.17 (1) 6.40 14-10 -139 / 0 0.11 (1)<br>13-10 -323 / 0 0.0 0.0 0.17 (1) 6.40 13-10 -323 / 0 0.09 (1)<br>21-20 0 / 0 -17.5 -17.5 0.05 (3) 10.00 2-20 0 / 2042 0.46 (1)<br>20-19 0 / 1928 -17.5 -17.5 0.36 (1) 10.00 13-11 0 / 2206 0.50 (1)<br>19-18 0 / 3775 -17.5 -17.5 0.68 (1) 10.00<br>18-17 0 / 2866 -17.5 -17.5 0.50 (1) 10.00<br>17-16 0 / 2233 -17.5 -17.5 0.42 (1) 10.00<br>16-15 0 / 2052 -17.5 -17.5 0.39 (1) 10.00<br>15-14 0 / 2052 -17.5 -17.5 0.39 (1) 10.00<br>14-13 0 / 2165 -17.5 -17.5 0.39 (1) 10.00<br>13-12 0 / 0 -17.5 -17.5 0.12 (3) 10.00 |  |  |  | <b>DESIGN CRITERIA</b><br><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF<br><br><b>SPACING = 24.0 IN. C/C</b><br><br>LOADING IN ALL FLAT SECTIONS BASED ON A SLOPE OF 6.00/12<br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- TPC 2011<br><br>(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<br><br>ALLOWABLE DEFL.(LL)= L/360 (1.21")<br>CALCULATED VERT. DEFL.(LL) = L/999 (0.21")<br>ALLOWABLE DEFL.(TL)= L/360 (1.21")<br>CALCULATED VERT. DEFL.(TL) = L/999 (0.38")<br><br>CSI: TC=0.38 (10-11:1), BC=0.68 (18-19:1), WB=0.71 (5-17:1), SSI=0.18 (10-11:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.90 (20) (INPUT = 0.90 )<br>JSI METAL= 0.65 (13) (INPUT = 1.00 ) |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|



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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.





LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

1 - 4

2x4

DRY

No.2

SPF

4 - 6

2x4

DRY

No.2

SPF

6 - 8

2x4

DRY

No.2

SPF

16 - 2

2x4

DRY

No.2

SPF

9 - 8

2x4

DRY

No.2

SPF

16 - 13

2x4

DRY

No.2

SPF

13 - 11

2x4

DRY

No.2

SPF

11 - 9

2x4

DRY

No.2

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

5 - 12

2x4

DRY

No.2

SPF

12 - 6

2x4

DRY

No.2

SPF

12 - 7

2x4

DRY

No.2

SPF

DRY: SEASONED LUMBER.

| DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER |      |                         |                                 |           |           |
|-----------------------------------------------------------------------------------------------|------|-------------------------|---------------------------------|-----------|-----------|
| BEARINGS                                                                                      |      |                         |                                 |           |           |
|                                                                                               |      | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
| JT                                                                                            | VERT | HORZ                    | DOWN                            | HORZ      | UPLIFT    |
| 16                                                                                            | 1664 | 0                       | 1664                            | 0         | 0         |
| 9                                                                                             | 1559 | 0                       | 1559                            | 0         | 0         |
| HANGER BY OTHERS                                                                              |      |                         |                                 |           |           |
| MIN. SEAT SIZE: 3-8                                                                           |      |                         |                                 |           |           |

| UNFACTORED REACTIONS |      |           |           |                     |       |
|----------------------|------|-----------|-----------|---------------------|-------|
|                      |      | 1ST LCASE | MAX./MIN. | COMPONENT REACTIONS |       |
| JT                   | VERT | SNOW      | LIVE      | PERM.LIVE           | WIND  |
| 16                   | 1165 | 829 / 0   | 0 / 0     | 0 / 0               | 0 / 0 |
| 9                    | 1094 | 765 / 0   | 0 / 0     | 0 / 0               | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 16

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.89 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 3-14. DBS = 20-0-0. CBF = 65 LBS.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-12. DBS = 16-0-0. CBF = 93 LBS.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-10. DBS = 18-0-0. CBF = 88 LBS.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 8-9. DBS = 8-0-0. CBF = 76 LBS.

| PLATES (table is in inches) |         |        |     |      |           |
|-----------------------------|---------|--------|-----|------|-----------|
| JT                          | TYPE    | PLATES | W   | LEN  | Y X       |
| 2                           | TMVW-t  | MT20   | 4.0 | 6.0  | 1.50 2.75 |
| 3                           | TMWW-t  | MT20   | 3.0 | 4.0  | 1.50 1.75 |
| 4                           | TS-t    | MT20   | 3.0 | 6.0  |           |
| 5                           | TMWW-t  | MT20   | 3.0 | 4.0  | 1.50 1.75 |
| 6                           | TTW+p   | MT20   | 3.0 | 4.0  |           |
| 7                           | TMWW-t  | MT20   | 3.0 | 4.0  | 1.50 1.50 |
| 8                           | TMVW+p  | MT20   | 4.0 | 4.0  | 1.25 2.00 |
| 9                           | BMV1+p  | MT20   | 2.0 | 4.0  |           |
| 10                          | BMWW-t  | MT20   | 4.0 | 4.0  | 1.75 1.50 |
| 11                          | BS-t    | MT20   | 3.0 | 6.0  |           |
| 12                          | BMWWW-t | MT20   | 3.0 | 8.0  | 1.50 2.50 |
| 13                          | BS-t    | MT20   | 3.0 | 6.0  |           |
| 14                          | BMWW-t  | MT20   | 3.0 | 4.0  |           |
| 15                          | BMWW-t  | MT20   | 3.0 | 10.0 | 1.50 3.00 |
| 16                          | BMV1+p  | MT20   | 2.0 | 4.0  |           |

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

|                                                                                  |           |                           |                           |                                |               |       |                           |                                |                                                                    |                 |             |               |
|----------------------------------------------------------------------------------|-----------|---------------------------|---------------------------|--------------------------------|---------------|-------|---------------------------|--------------------------------|--------------------------------------------------------------------|-----------------|-------------|---------------|
| A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED. | CHORDS    |                           |                           |                                | WEBS          |       |                           |                                | RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . |                 |             |               |
|                                                                                  | MEMB.     | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED VERT. LOAD (PLF) | UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED VERT. LOAD (PLF) | NAIL VALUES                                                        | PLATE GRIP(DRY) | SHEAR (PLI) | SECTION (PLI) |
|                                                                                  | FR-TO     |                           | FROM                      | TO                             |               | FR-TO |                           |                                |                                                                    |                 |             |               |
|                                                                                  | 1- 2      | 0 / 23                    | -77.3                     | -77.3                          | 0.10 (1)      | 10.00 | 15- 3                     | -108 / 85                      | 0.04 (1)                                                           |                 |             |               |
|                                                                                  | 2- 3      | -2287 / 0                 | -77.3                     | -77.3                          | 0.66 (1)      | 3.89  | 3-14                      | -519 / 0                       | 0.25 (1)                                                           |                 |             |               |
|                                                                                  | 3- 4      | -1822 / 0                 | -77.3                     | -77.3                          | 0.51 (1)      | 4.46  | 14- 5                     | 0 / 403                        | 0.09 (1)                                                           |                 |             |               |
|                                                                                  | 4- 5      | -1822 / 0                 | -77.3                     | -77.3                          | 0.51 (1)      | 4.46  | 5-12                      | -925 / 0                       | 0.56 (1)                                                           |                 |             |               |
|                                                                                  | 5- 6      | -1162 / 0                 | -77.3                     | -77.3                          | 0.49 (1)      | 5.27  | 12- 6                     | 0 / 635                        | 0.10 (1)                                                           |                 |             |               |
|                                                                                  | 6- 7      | -1163 / 0                 | -77.3                     | -77.3                          | 0.35 (1)      | 5.48  | 12- 7                     | 0 / 202                        | 0.03 (1)                                                           |                 |             |               |
|                                                                                  | 7- 8      | -991 / 0                  | -77.3                     | -77.3                          | 0.35 (1)      | 5.83  | 10- 7                     | -779 / 0                       | 0.41 (1)                                                           |                 |             |               |
| 16- 2                                                                            | -1611 / 0 | 0.0                       | 0.0                       | 0.16 (1)                       | 6.52          | 2-15  | 0 / 2081                  | 0.47 (1)                       |                                                                    |                 |             |               |
| 9- 8                                                                             | -1517 / 0 | 0.0                       | 0.0                       | 0.27 (1)                       | 5.33          | 10- 8 | 0 / 1271                  | 0.29 (1)                       |                                                                    |                 |             |               |
| NAIL VALUES                                                                      |           |                           |                           |                                |               |       |                           |                                |                                                                    |                 |             |               |
| PLATE GRIP(DRY) SHEAR SECTION                                                    |           |                           |                           |                                |               |       |                           |                                |                                                                    |                 |             |               |
| (PSI) (PLI) (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= 0.89 (8) (INPUT = 0.90 )                                               |           |                           |                           |                                |               |       |                           |                                |                                                                    |                 |             |               |
| JSI METAL= 0.61 (2) (INPUT = 1.00 )                                              |           |                           |                           |                                |               |       |                           |                                |                                                                    |                 |             |               |

| NAIL VALUES                         |           |       |         |     |           |
|-------------------------------------|-----------|-------|---------|-----|-----------|
| PLATE                               | GRIP(DRY) | SHEAR | SECTION |     |           |
|                                     | (PSI)     | (PLI) | (PLI)   |     |           |
| MT20                                | 618       | 354   | 1667    | 822 | 2284 1656 |
| MAX MIN MAX MIN MAX MIN             |           |       |         |     |           |
| PLATE PLACEMENT TOL. = 0.250 inches |           |       |         |     |           |
| PLATE ROTATION TOL. = 5.0 Deg.      |           |       |         |     |           |
| JSI GRIP= 0.89 (8) (INPUT = 0.90)   |           |       |         |     |           |
| JSI METAL= 0.61 (2) (INPUT = 1.00)  |           |       |         |     |           |

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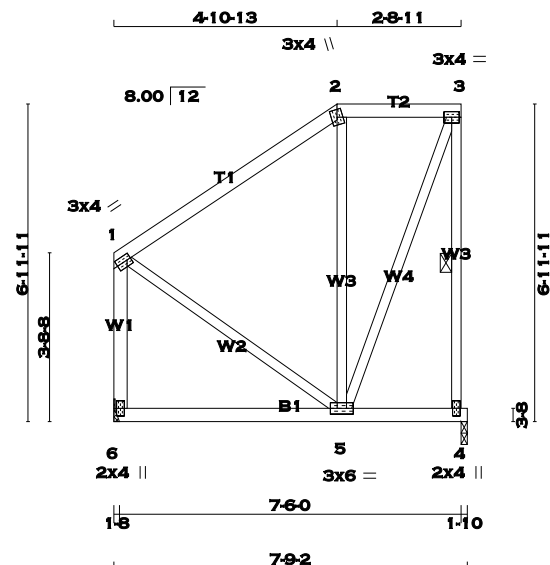
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TOTAL WEIGHT = 43 lb

| LUMBER                       |        |      |        | DESCR. |
|------------------------------|--------|------|--------|--------|
| N. L. G. A. RULES            | CHORDS | SIZE | LUMBER |        |
| 1 - 2                        | 2x4    | DRY  | No.2   | SPF    |
| 2 - 3                        | 2x4    | DRY  | No.2   | SPF    |
| 4 - 3                        | 2x3    | DRY  | No.2   | SPF    |
| 6 - 1                        | 2x4    | DRY  | No.2   | SPF    |
| 6 - 4                        | 2x4    | DRY  | No.2   | SPF    |
| ALL WEBS 2x3 DRY No.2 EXCEPT |        |      |        | 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 | 1.00 |
| 2  | TTW+m   | MT20   | 3.0 | 4.0 |      |      |
| 3  | TMVW-t  | MT20   | 3.0 | 4.0 |      |      |
| 4  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 5  | BMVWW-t | MT20   | 3.0 | 6.0 |      |      |
| 6  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

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       |      | MAXIMUM FACTORED |      | INPUT                                |       | REQRD |       |
|----------|----------|----------------|------|------------------|------|--------------------------------------|-------|-------|-------|
| JT       | COMBINED | GROSS REACTION | DOWN | GROSS REACTION   | DOWN | BRG                                  | IN-SX | BRG   | IN-SX |
| 4        | 362      | 0              | 362  | 0                | 0    | 1-10                                 | 1-10  |       |       |
| 6        | 362      | 0              | 362  | 0                | 0    | HANGER BY OTHERS MIN. SEAT SIZE: 1-8 |       |       |       |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE | MAX./MIN. | COMPONENT REACTIONS |           |       |        |       |
|----|-----------|-----------|---------------------|-----------|-------|--------|-------|
|    | COMBINED  | SNOW      | LIVE                | PERM.LIVE | WIND  | DEAD   | SOIL  |
| 4  | 254       | 178 / 0   | 0 / 0               | 0 / 0     | 0 / 0 | 76 / 0 | 0 / 0 |
| 6  | 254       | 178 / 0   | 0 / 0               | 0 / 0     | 0 / 0 | 76 / 0 | 0 / 0 |

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

**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 3-4. DBS = 20-0-0 . CBF = 44 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: (3)

| C H O R D S |                  | F A C T O R E D  |                | W E B S            |       | F A C T O R E D  |               |
|-------------|------------------|------------------|----------------|--------------------|-------|------------------|---------------|
| MEMB.       | MAX. FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX (LC)   | MAX. UNBRAC LENGTH | MEMB. | MAX. FORCE (LBS) | MAX. CSI (LC) |
| FR-TO       |                  | FROM             | TO             |                    | FR-TO |                  |               |
| 1-2         | -121 / 0         | -77.3            | -77.3 0.24 (1) | 6.25               | 5-2   | -228 / 0         | 0.19 (1)      |
| 2-3         | -97 / 0          | -77.3            | -77.3 0.07 (1) | 6.25               | 5-3   | 0 / 265          | 0.06 (1)      |
| 4-3         | -351 / 0         | 0.0              | 0.0 0.11 (1)   | 6.25               | 1-5   | 0 / 121          | 0.03 (1)      |
| 6-1         | -325 / 0         | 0.0              | 0.0 0.07 (1)   | 7.81               |       |                  |               |
| 6-5         | 0 / 0            | -17.5            | -17.5 0.09 (3) | 10.00              |       |                  |               |
| 5-4         | 0 / 0            | -17.5            | -17.5 0.09 (3) | 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**

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 (0.25")  
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.25")  
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.02")

CSI: TC=0.24 (1-2:1) , BC=0.09 (5-6:3) , WB=0.19 (2-5:1) , SSI=0.12 (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) SHEAR SECTION (PSI) (PLI) (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= 0.64 (5) (INPUT = 0.90 )  
JSI METAL= 0.09 (5) (INPUT = 1.00 )

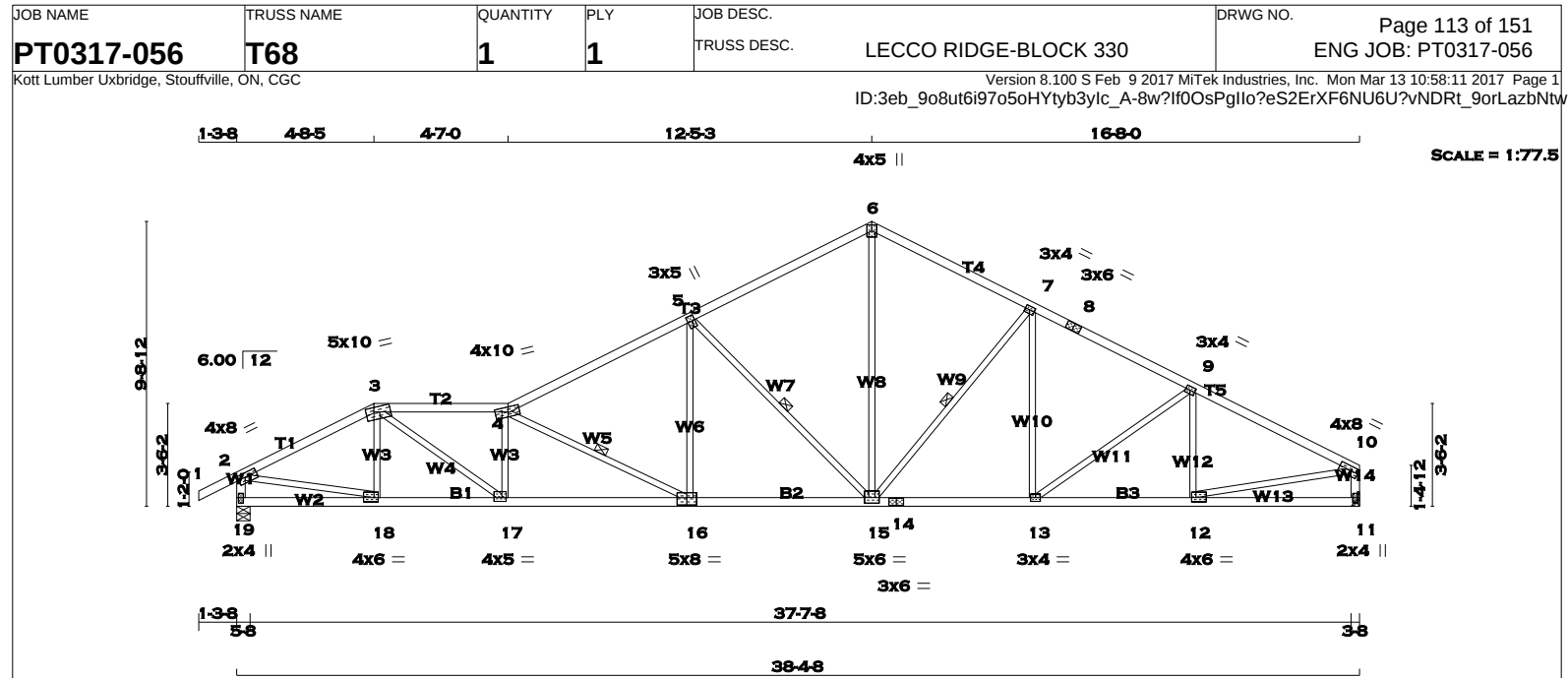


**RECEIVED**  
**TOWN OF MILTON**  
**MAR 29, 2017**  
**17-5010**  
**BUILDING DIVISION**

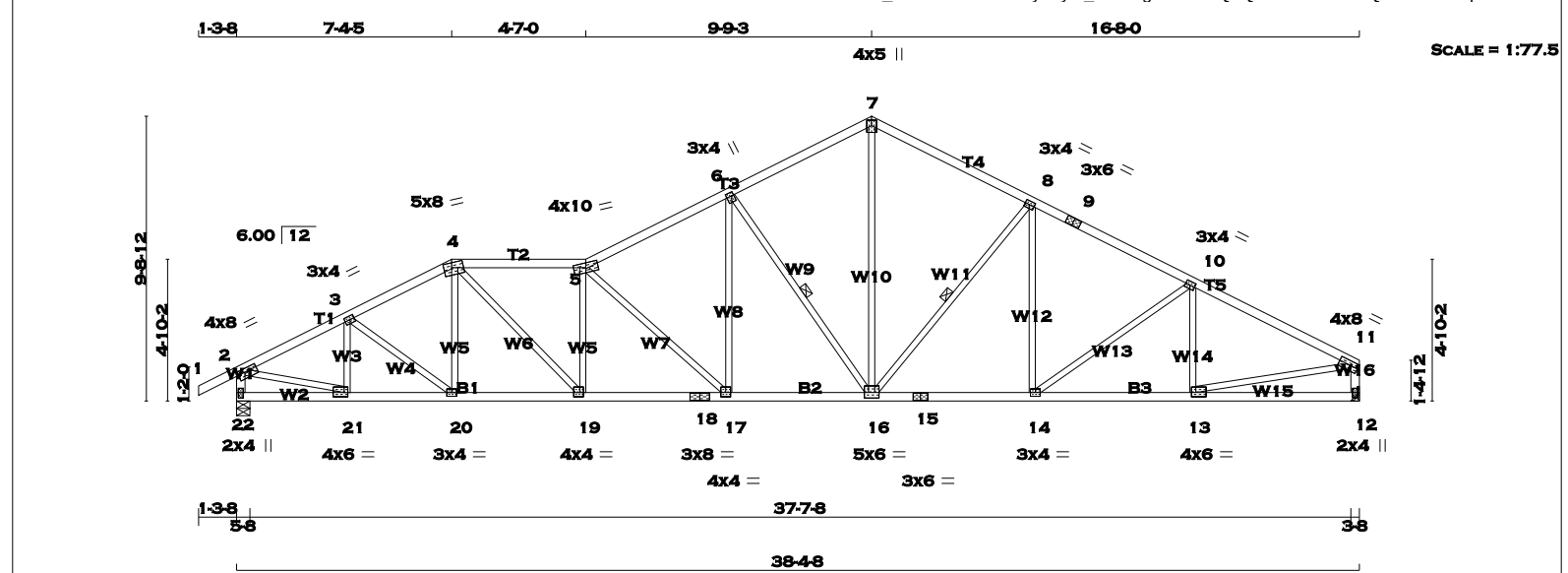
READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.







| TOTAL WEIGHT = 158 lb                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           | [M][F]                          |                           |                 |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |                         |                                 |            |                 |    |      |      |      |        |    |      |   |      |   |    |      |   |      |   |    |                    |                |                |           |      |      |      |    |      |         |       |       |       |         |       |    |      |         |       |       |       |         |       |        |  |  |  |      |  |  |  |       |                           |                           |                           |       |                           |                           |  |       |  |         |  |       |  |  |  |      |        |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------|---------------------------|-----------------|---------------------------|---------------------------|----------|-----|----------|-------|-----|-----|----------|-------|-----|-----|----------|-------|-----|-----|----------|--------|-----|-----|----------|--------|-----|-----|----------|---------|-----|-----|----------|---------|-----|-----|----------|---------|-----|-----|----------|---------|-----|-----|----------|-----------------|-----|-----|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------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-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------|----|---|------|-----|--|----|---|-----|-----|---------|----|---|-----|-----|--|----|---|-----|-----|------------|--|---|------|-----|-------|-----------------|-------------|---------------|--|-----|-----|-----|------|-----|-----|------|--|-----|------|------|
| <div>LUMBER</div> <div>N. L. G. A. RULES</div> <table><tr><th>CHORDS</th><th>SIZE</th><th>LUMBER</th><th>DESCR.</th></tr><tr><td>1 - 3</td><td>2x4</td><td>DRY</td><td>No.2 SPF</td></tr><tr><td>3 - 4</td><td>2x4</td><td>DRY</td><td>No.2 SPF</td></tr><tr><td>4 - 6</td><td>2x4</td><td>DRY</td><td>No.2 SPF</td></tr><tr><td>6 - 8</td><td>2x4</td><td>DRY</td><td>No.2 SPF</td></tr><tr><td>8 - 10</td><td>2x4</td><td>DRY</td><td>No.2 SPF</td></tr><tr><td>19 - 2</td><td>2x4</td><td>DRY</td><td>No.2 SPF</td></tr><tr><td>11 - 10</td><td>2x4</td><td>DRY</td><td>No.2 SPF</td></tr><tr><td>19 - 16</td><td>2x4</td><td>DRY</td><td>No.2 SPF</td></tr><tr><td>16 - 14</td><td>2x4</td><td>DRY</td><td>No.2 SPF</td></tr><tr><td>14 - 11</td><td>2x4</td><td>DRY</td><td>No.2 SPF</td></tr><tr><td>ALL WEBS EXCEPT</td><td>2x3</td><td>DRY</td><td>No.2 SPF</td></tr></table> <div>DRY: SEASONED LUMBER.</div> |                           | 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 | 6 - 8 | 2x4 | DRY | No.2 SPF | 8 - 10 | 2x4 | DRY | No.2 SPF | 19 - 2 | 2x4 | DRY | No.2 SPF | 11 - 10 | 2x4 | DRY | No.2 SPF | 19 - 16 | 2x4 | DRY | No.2 SPF | 16 - 14 | 2x4 | DRY | No.2 SPF | 14 - 11 | 2x4 | DRY | No.2 SPF | ALL WEBS EXCEPT | 2x3 | DRY | No.2 SPF | <div>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</div> <div>BEARINGS</div> <table><tr><th></th><th>FACTORED GROSS REACTION</th><th>MAXIMUM FACTORED GROSS REACTION</th><th>INPUT DOWN</th><th>REQRD BRG IN-SX</th></tr><tr><td>JT</td><td>VERT</td><td>HORZ</td><td>HORZ</td><td>UPLIFT</td></tr><tr><td>19</td><td>1925</td><td>0</td><td>1925</td><td>0</td></tr><tr><td>11</td><td>1820</td><td>0</td><td>1820</td><td>0</td></tr></table> <div>HANGER BY OTHERS<br/>MIN. SEAT SIZE: 3-8</div> <div>UNFACTORED REACTIONS</div> <table><tr><th>JT</th><th>1ST LCASE COMBINED</th><th>MAX./MIN. SNOW</th><th>COMPONENT LIVE</th><th>PERM.LIVE</th><th>WIND</th><th>DEAD</th><th>SOIL</th></tr><tr><td>19</td><td>1349</td><td>957 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>392 / 0</td><td>0 / 0</td></tr><tr><td>11</td><td>1277</td><td>893 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>384 / 0</td><td>0 / 0</td></tr></table> <div>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 19</div> <div>BRACING</div> <div>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.25 FT.</div> <div>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.</div> <div>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.</div> <div>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 4-16, 5-15. DBS = 10-0-0 . CBF = 88 LBS.</div> <div>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-15. DBS = 20-0-0 . CBF = 73 LBS.</div> <div>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.</div> <div>END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW</div> <div>LOADING</div> <div>TOTAL LOAD CASES: (3)</div> <table><tr><th colspan="4">CHORDS</th><th colspan="4">WEBS</th></tr><tr><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>FACTORED VERT. LOAD (PLF)</th><th>MAX. UNBRACED LENGTH (LC)</th><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX. UNBRACED LENGTH (LC)</th><th></th></tr><tr><td>FR-TO</td><td></td><td>FROM TO</td><td></td><td>FR-TO</td><td></td><td></td><td></td></tr><tr><td>1- 2</td><td>0 / 23</td><td>-77.3 -77.3</td><td>0.10 (1)</td><td>10.00</td><td>18- 3</td><td>-328 / 0</td><td>0.07 (1)</td></tr><tr><td>2- 3</td><td>-2635 / 0</td><td>-77.3 -77.3</td><td>0.32 (1)</td><td>4.00</td><td>3-17</td><td>0 / 1974</td><td>0.44 (1)</td></tr><tr><td>3- 4</td><td>-3948 / 0</td><td>-77.3 -77.3</td><td>0.41 (1)</td><td>3.25</td><td>17- 4</td><td>-1074 / 0</td><td>0.22 (1)</td></tr><tr><td>4- 5</td><td>-3024 / 0</td><td>-77.3 -77.3</td><td>0.58 (1)</td><td>3.53</td><td>4-16</td><td>-1411 / 0</td><td>0.48 (1)</td></tr><tr><td>5- 6</td><td>-2069 / 0</td><td>-77.3 -77.3</td><td>0.47 (1)</td><td>4.25</td><td>16- 5</td><td>0 / 767</td><td>0.17 (1)</td></tr><tr><td>6- 7</td><td>-2061 / 0</td><td>-77.3 -77.3</td><td>0.34 (1)</td><td>4.42</td><td>5-15</td><td>-1286 / 0</td><td>0.70 (1)</td></tr><tr><td>7- 8</td><td>-2457 / 0</td><td>-77.3 -77.3</td><td>0.35 (1)</td><td>4.11</td><td>15- 6</td><td>0 / 1472</td><td>0.33 (1)</td></tr><tr><td>8- 9</td><td>-2457 / 0</td><td>-77.3 -77.3</td><td>0.35 (1)</td><td>4.11</td><td>15- 7</td><td>-583 / 0</td><td>0.30 (1)</td></tr><tr><td>9-10</td><td>-2565 / 0</td><td>-77.3 -77.3</td><td>0.42 (1)</td><td>3.97</td><td>13- 7</td><td>0 / 172</td><td>0.04 (3)</td></tr><tr><td>19- 2</td><td>-1889 / 0</td><td>0.0</td><td>0.0</td><td>6.10</td><td>13- 9</td><td>-139 / 0</td><td>0.12 (1)</td></tr><tr><td>11-10</td><td>-1776 / 0</td><td>0.0</td><td>0.0</td><td>6.26</td><td>12- 9</td><td>-336 / 0</td><td>0.09 (1)</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>2-18</td><td>0 / 2392</td><td>0.54 (1)</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>12-10</td><td>0 / 2352</td><td>0.53 (1)</td></tr><tr><td>19-18</td><td>0 / 0</td><td>-17.5 -17.5</td><td>0.08 (3)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>18-17</td><td>0 / 2344</td><td>-17.5 -17.5</td><td>0.42 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>17-16</td><td>0 / 3983</td><td>-17.5 -17.5</td><td>0.72 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>16-15</td><td>0 / 2729</td><td>-17.5 -17.5</td><td>0.51 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>15-14</td><td>0 / 2197</td><td>-17.5 -17.5</td><td>0.43 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>14-13</td><td>0 / 2197</td><td>-17.5 -17.5</td><td>0.43 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>13-12</td><td>0 / 2310</td><td>-17.5 -17.5</td><td>0.42 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>12-11</td><td>0 / 0</td><td>-17.5 -17.5</td><td>0.12 (3)</td><td>10.00</td><td></td><td></td><td></td></tr></table> |  |  | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT DOWN | REQRD BRG IN-SX | JT | VERT | HORZ | HORZ | UPLIFT | 19 | 1925 | 0 | 1925 | 0 | 11 | 1820 | 0 | 1820 | 0 | JT | 1ST LCASE COMBINED | MAX./MIN. SNOW | COMPONENT LIVE | PERM.LIVE | WIND | DEAD | SOIL | 19 | 1349 | 957 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 392 / 0 | 0 / 0 | 11 | 1277 | 893 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 384 / 0 | 0 / 0 | CHORDS |  |  |  | WEBS |  |  |  | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC) |  | FR-TO |  | FROM TO |  | FR-TO |  |  |  | 1- 2 | 0 / 23 | -77.3 -77.3 | 0.10 (1) | 10.00 | 18- 3 | -328 / 0 | 0.07 (1) | 2- 3 | -2635 / 0 | -77.3 -77.3 | 0.32 (1) | 4.00 | 3-17 | 0 / 1974 | 0.44 (1) | 3- 4 | -3948 / 0 | -77.3 -77.3 | 0.41 (1) | 3.25 | 17- 4 | -1074 / 0 | 0.22 (1) | 4- 5 | -3024 / 0 | -77.3 -77.3 | 0.58 (1) | 3.53 | 4-16 | -1411 / 0 | 0.48 (1) | 5- 6 | -2069 / 0 | -77.3 -77.3 | 0.47 (1) | 4.25 | 16- 5 | 0 / 767 | 0.17 (1) | 6- 7 | -2061 / 0 | -77.3 -77.3 | 0.34 (1) | 4.42 | 5-15 | -1286 / 0 | 0.70 (1) | 7- 8 | -2457 / 0 | -77.3 -77.3 | 0.35 (1) | 4.11 | 15- 6 | 0 / 1472 | 0.33 (1) | 8- 9 | -2457 / 0 | -77.3 -77.3 | 0.35 (1) | 4.11 | 15- 7 | -583 / 0 | 0.30 (1) | 9-10 | -2565 / 0 | -77.3 -77.3 | 0.42 (1) | 3.97 | 13- 7 | 0 / 172 | 0.04 (3) | 19- 2 | -1889 / 0 | 0.0 | 0.0 | 6.10 | 13- 9 | -139 / 0 | 0.12 (1) | 11-10 | -1776 / 0 | 0.0 | 0.0 | 6.26 | 12- 9 | -336 / 0 | 0.09 (1) |  |  |  |  |  | 2-18 | 0 / 2392 | 0.54 (1) |  |  |  |  |  | 12-10 | 0 / 2352 | 0.53 (1) | 19-18 | 0 / 0 | -17.5 -17.5 | 0.08 (3) | 10.00 |  |  |  | 18-17 | 0 / 2344 | -17.5 -17.5 | 0.42 (1) | 10.00 |  |  |  | 17-16 | 0 / 3983 | -17.5 -17.5 | 0.72 (1) | 10.00 |  |  |  | 16-15 | 0 / 2729 | -17.5 -17.5 | 0.51 (1) | 10.00 |  |  |  | 15-14 | 0 / 2197 | -17.5 -17.5 | 0.43 (1) | 10.00 |  |  |  | 14-13 | 0 / 2197 | -17.5 -17.5 | 0.43 (1) | 10.00 |  |  |  | 13-12 | 0 / 2310 | -17.5 -17.5 | 0.42 (1) | 10.00 |  |  |  | 12-11 | 0 / 0 | -17.5 -17.5 | 0.12 (3) | 10.00 |  |  |  | <div>DESIGN CRITERIA</div> <div>SPECIFIED LOADS:</div> <table><tr><td>TOP CH.</td><td>LL</td><td>=</td><td>23.3</td><td>PSF</td></tr><tr><td></td><td>DL</td><td>=</td><td>3.0</td><td>PSF</td></tr><tr><td>BOT CH.</td><td>LL</td><td>=</td><td>0.0</td><td>PSF</td></tr><tr><td></td><td>DL</td><td>=</td><td>7.0</td><td>PSF</td></tr><tr><td>TOTAL LOAD</td><td></td><td>=</td><td>33.3</td><td>PSF</td></tr></table> <div>SPACING = 24.0 IN./C/C</div> <div>LOADING IN ALL FLAT SECTIONS BASED ON A SLOPE OF 6.00/12</div> <div>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010</div> <div>THIS DESIGN COMPLIES WITH:</div> <div>- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014</div> <div>- CSA 086-09</div> <div>- TPIC 2011</div> <div>(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</div> <div>ALLOWABLE DEFL.(LL)= L/360 (1.28")</div> <div>CALCULATED VERT. DEFL.(LL) = L/999 (0.25")</div> <div>ALLOWABLE DEFL.(TL)= L/360 (1.28")</div> <div>CALCULATED VERT. DEFL.(TL) = L/992 (0.46")</div> <div>CSI: TC=0.58 (4-5:1) , BC=0.72 (16-17:1) , WB=0.70 (5-15:1) , SSI=0.21 (4-5:1)</div> <div>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10</div> <div>COMP=1.10 SHEAR=1.10 TENS= 1.10</div> <div>COMPANION LIVE LOAD FACTOR = 0.50</div> <div>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .</div> <div>NAIL VALUES</div> <table><tr><th>PLATE</th><th>GRIP(DRY) (PSI)</th><th>SHEAR (PLI)</th><th>SECTION (PLI)</th></tr><tr><td></td><td>MAX</td><td>MIN</td><td>MAX</td></tr><tr><td>MT20</td><td>618</td><td>354</td><td>1667</td></tr><tr><td></td><td>822</td><td>2284</td><td>1656</td></tr></table> <div>PLATE PLACEMENT TOL. = 0.250 inches</div> <div>PLATE ROTATION TOL. = 5.0 Deg.</div> <div>JSI GRIP= 0.90 (3) (INPUT = 0.90 )</div> <div>JSI METAL= 0.81 (16) (INPUT = 1.00 )</div> |  | 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 | PLATE | GRIP(DRY) (PSI) | SHEAR (PLI) | SECTION (PLI) |  | MAX | MIN | MAX | MT20 | 618 | 354 | 1667 |  | 822 | 2284 | 1656 |
| CHORDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | SIZE                      | LUMBER                          | DESCR.                    |                 |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| 1 - 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2x4                       | DRY                             | No.2 SPF                  |                 |   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| 3 - 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2x4                       | DRY                             | No.2 SPF                  |                 |   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| 4 - 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2x4                       | DRY                             | No.2 SPF                  |                 |   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| 6 - 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2x4                       | DRY                             | No.2 SPF                  |                 |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| 8 - 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2x4                       | DRY                             | No.2 SPF                  |                 |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| 19 - 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2x4                       | DRY                             | No.2 SPF                  |                 |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| 11 - 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2x4                       | DRY                             | No.2 SPF                  |                 |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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   |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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| 19 - 16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2x4                       | DRY                             | No.2 SPF                  |                 |   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| JT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1ST LCASE COMBINED        | MAX./MIN. SNOW                  | COMPONENT LIVE            | PERM.LIVE       | WIND                      | DEAD                      | SOIL     |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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| 19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1349                      | 957 / 0                         | 0 / 0                     | 0 / 0           | 0 / 0                     | 392 / 0                   | 0 / 0    |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1277                      | 893 / 0                         | 0 / 0                     | 0 / 0           | 0 / 0                     | 384 / 0                   | 0 / 0    |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| CHORDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                 |                           | WEBS            |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| MEMB.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF)       | MAX. UNBRACED LENGTH (LC) | MEMB.           | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC) |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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| FR-TO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           | FROM TO                         |                           | FR-TO           |   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| 1- 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0 / 23                    | -77.3 -77.3                     | 0.10 (1)                  | 10.00           | 18- 3                     | -328 / 0                  | 0.07 (1) |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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    |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| 2- 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -2635 / 0                 | -77.3 -77.3                     | 0.32 (1)                  | 4.00            | 3-17                      | 0 / 1974                  | 0.44 (1) |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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    |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| 3- 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -3948 / 0                 | -77.3 -77.3                     | 0.41 (1)                  | 3.25            | 17- 4                     | -1074 / 0                 | 0.22 (1) |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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    |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| 4- 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -3024 / 0                 | -77.3 -77.3                     | 0.58 (1)                  | 3.53            | 4-16                      | -1411 / 0                 | 0.48 (1) |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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    |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| 5- 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -2069 / 0                 | -77.3 -77.3                     | 0.47 (1)                  | 4.25            | 16- 5                     | 0 / 767                   | 0.17 (1) |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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    |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| 6- 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -2061 / 0                 | -77.3 -77.3                     | 0.34 (1)                  | 4.42            | 5-15                      | -1286 / 0                 | 0.70 (1) |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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    |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| 7- 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -2457 / 0                 | -77.3 -77.3                     | 0.35 (1)                  | 4.11            | 15- 6                     | 0 / 1472                  | 0.33 (1) |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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    |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| 8- 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -2457 / 0                 | -77.3 -77.3                     | 0.35 (1)                  | 4.11            | 15- 7                     | -583 / 0                  | 0.30 (1) |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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    |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| 9-10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -2565 / 0                 | -77.3 -77.3                     | 0.42 (1)                  | 3.97            | 13- 7                     | 0 / 172                   | 0.04 (3) |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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    |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| 19- 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -1889 / 0                 | 0.0                             | 0.0                       | 6.10            | 13- 9                     | -139 / 0                  | 0.12 (1) |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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    |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| 11-10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -1776 / 0                 | 0.0                             | 0.0                       | 6.26            | 12- 9                     | -336 / 0                  | 0.09 (1) |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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    |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                 |                           |                 | 2-18                      | 0 / 2392                  | 0.54 (1) |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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    |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                 |                           |                 | 12-10                     | 0 / 2352                  | 0.53 (1) |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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    |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| 19-18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0 / 0                     | -17.5 -17.5                     | 0.08 (3)                  | 10.00           |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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   |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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| 18-17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0 / 2344                  | -17.5 -17.5                     | 0.42 (1)                  | 10.00           |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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  |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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| 17-16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0 / 3983                  | -17.5 -17.5                     | 0.72 (1)                  | 10.00           |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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  |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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| 16-15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0 / 2729                  | -17.5 -17.5                     | 0.51 (1)                  | 10.00           |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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  |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |    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| 15-14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0 / 2197                  | -17.5 -17.5                     | 0.43 (1)                  | 10.00           |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| 14-13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0 / 2197                  | -17.5 -17.5                     | 0.43 (1)                  | 10.00           |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| 13-12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0 / 2310                  | -17.5 -17.5                     | 0.42 (1)                  | 10.00           |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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  |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |    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| 12-11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0 / 0                     | -17.5 -17.5                     | 0.12 (3)                  | 10.00           |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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   |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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| TOP CH.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LL                        | =                               | 23.3                      | PSF             |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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  |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |    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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | DL                        | =                               | 3.0                       | PSF             |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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  |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |    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| BOT CH.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LL                        | =                               | 0.0                       | PSF             |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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  |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |          |             |          |       |  |  |  |       |       |             |          |       |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | DL                        | =                               | 7.0                       | PSF             |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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  |             |          |       |       |          |          |      |           |             |          |      |      |          |          |      |           |             |          |      |       |           |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |         |          |      |           |             |          |      |      |           |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |          |          |      |           |             |          |      |       |         |          |       |           |     |     |      |       |          |          |       |           |     |     |      |       |          |          |  |  |  |  |  |      |          |          |  |  |  |  |  |       |          |          |       |       |             |          |       |  |  |  |    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| TOTAL LOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | =                               | 33.3                      | PSF             |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| PLATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | GRIP(DRY) (PSI)           | SHEAR (PLI)                     | SECTION (PLI)             |                 |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | MAX                       | MIN                             | MAX                       |                 |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| MT20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 618                       | 354                             | 1667                      |                 |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 822                       | 2284                            | 1656                      |                 |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |         |     |     |          |                 |     |     |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| <div><div><div>LICENSED PROFESSIONAL ENGINEER</div><div>R. M. TREVISAN</div><div>100136551</div><div>March 13th, 2017</div><div>PROVINCE OF ONTARIO</div></div><div>RECEIVED<br/>TOWN OF MILTON<br/>MAR 29, 2017<br/>17-5010<br/>BUILDING DIVISION</div><div>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.</div><div></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                 |                           |                 |                           |                           |          |     |          |       |     |     |          |       |     |     |          |       |     |     |          |        |     |     |          |        |     |     |          |         |     |     |          |         |     |     |          |         |     |   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|      |     |  |    |   |     |     |         |    |   |     |     |  |    |   |     |     |            |  |   |      |     |       |                 |             |               |  |     |     |     |      |     |     |      |  |     |      |      |



LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

1 - 4

2x4

DRY

No.2

SPF

4 - 5

2x4

DRY

No.2

SPF

5 - 7

2x4

DRY

No.2

SPF

7 - 9

2x4

DRY

No.2

SPF

9 - 11

2x4

DRY

No.2

SPF

22 - 2

2x4

DRY

No.2

SPF

12 - 11

2x4

DRY

No.2

SPF

22 - 18

2x4

DRY

No.2

SPF

18 - 15

2x4

DRY

No.2

SPF

15 - 12

2x4

DRY

No.2

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

DRY: SEASONED LUMBER.

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

LOADING IN ALL FLAT SECTIONS 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 (1.28")

CALCULATED VERT. DEFL.(LL) = L/999 (0.21")

ALLOWABLE DEFL.(TL)= L/360 (1.28")

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

CSI: TC=0.42 (10-11:1), BC=0.58 (17-19:1), WB=0.90 (5-17:1), SSI=0.18 (10-11:1)

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) SHEAR SECTION (PSI) (PLI) (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= 0.89 (11) (INPUT = 0.90 )

JSI METAL= 0.85 (18) (INPUT = 1.00 )

| DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER |                                 |
|-----------------------------------------------------------------------------------------------|---------------------------------|
| BEARINGS                                                                                      |                                 |
| FACTORED GROSS REACTION                                                                       | MAXIMUM FACTORED GROSS REACTION |
| JT VERT                                                                                       | DOWN                            |
| 22 1925 0                                                                                     | 1925 0 0                        |
| 12 1820 0                                                                                     | 1820 0 0                        |
| INPUT BRG IN-SX                                                                               |                                 |
| 5-8 5-8                                                                                       |                                 |
| HANGER BY OTHERS                                                                              |                                 |
| MIN. SEAT SIZE: 3-8                                                                           |                                 |
| UNFACTORED REACTIONS                                                                          |                                 |
| 1ST LCASE                                                                                     | MAX./MIN. COMPONENT REACTIONS   |
| JT COMBINED                                                                                   | SNOW                            |
| 22 1349 957 / 0                                                                               | 0 / 0                           |
| 12 1277 893 / 0                                                                               | 0 / 0                           |
| PERM.LIVE WIND DEAD SOIL                                                                      |                                 |
| 0 / 0 0 / 0 392 / 0 0 / 0                                                                     |                                 |
| 0 / 0 0 / 0 384 / 0 0 / 0                                                                     |                                 |

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.61 FT.

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

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

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 6-16. DBS = 12-0-0. CBF = 88 LBS.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 8-16. DBS = 20-0-0. CBF = 73 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: (3)       |                           |
| CHORDS                      |                           |
| MEMB.                       | MAX. FACTORED FORCE (LBS) |
| FR-TO                       | FROM TO                   |
| 1-2                         | 0 / 23                    |
| 2-3                         | -2549 / 0                 |
| 3-4                         | -2686 / 0                 |
| 4-5                         | -3275 / 0                 |
| 5-6                         | -2771 / 0                 |
| 6-7                         | -2062 / 0                 |
| 7-8                         | -2060 / 0                 |
| 8-9                         | -2457 / 0                 |
| 9-10                        | -2457 / 0                 |
| 10-11                       | -2565 / 0                 |
| 22-2                        | -1889 / 0                 |
| 12-11                       | -1776 / 0                 |
| FACTORED VERT. LOAD LC1 MAX |                           |
| 1-2                         | -77.3 -77.3 0.10 (1)      |
| 2-3                         | -77.3 -77.3 0.20 (1)      |
| 3-4                         | -77.3 -77.3 0.19 (1)      |
| 4-5                         | -77.3 -77.3 0.35 (1)      |
| 5-6                         | -77.3 -77.3 0.34 (1)      |
| 6-7                         | -77.3 -77.3 0.29 (1)      |
| 7-8                         | -77.3 -77.3 0.34 (1)      |
| 8-9                         | -77.3 -77.3 0.35 (1)      |
| 9-10                        | -77.3 -77.3 0.35 (1)      |
| 10-11                       | -77.3 -77.3 0.42 (1)      |
| 22-2                        | 0.0 0.0 0.19 (1)          |
| 12-11                       | 0.0 0.0 0.18 (1)          |
| WEBS                        |                           |
| MEMB.                       | MAX. FACTORED FORCE (LBS) |
| FR-TO                       | FROM TO                   |
| 21-3                        | -468 / 0                  |
| 4-18                        | 0 / 123                   |
| 10-4                        | 0 / 55                    |
| 4-19                        | 0 / 1263                  |
| 19-5                        | -825 / 0                  |
| 5-17                        | -1088 / 0                 |
| 17-6                        | 0 / 825                   |
| 6-16                        | -1170 / 0                 |
| 16-7                        | 0 / 1509                  |
| 16-8                        | -584 / 0                  |
| 14-8                        | 0 / 173                   |
| 14-10                       | -139 / 0                  |
| 13-10                       | -336 / 0                  |
| 2-21                        | 0 / 2348                  |
| 13-11                       | 0 / 2351                  |

LICENSED PROFESSIONAL ENGINEER

P. M. TREVISAN

100136551

March 13th, 2017

PROVINCE OF ONTARIO

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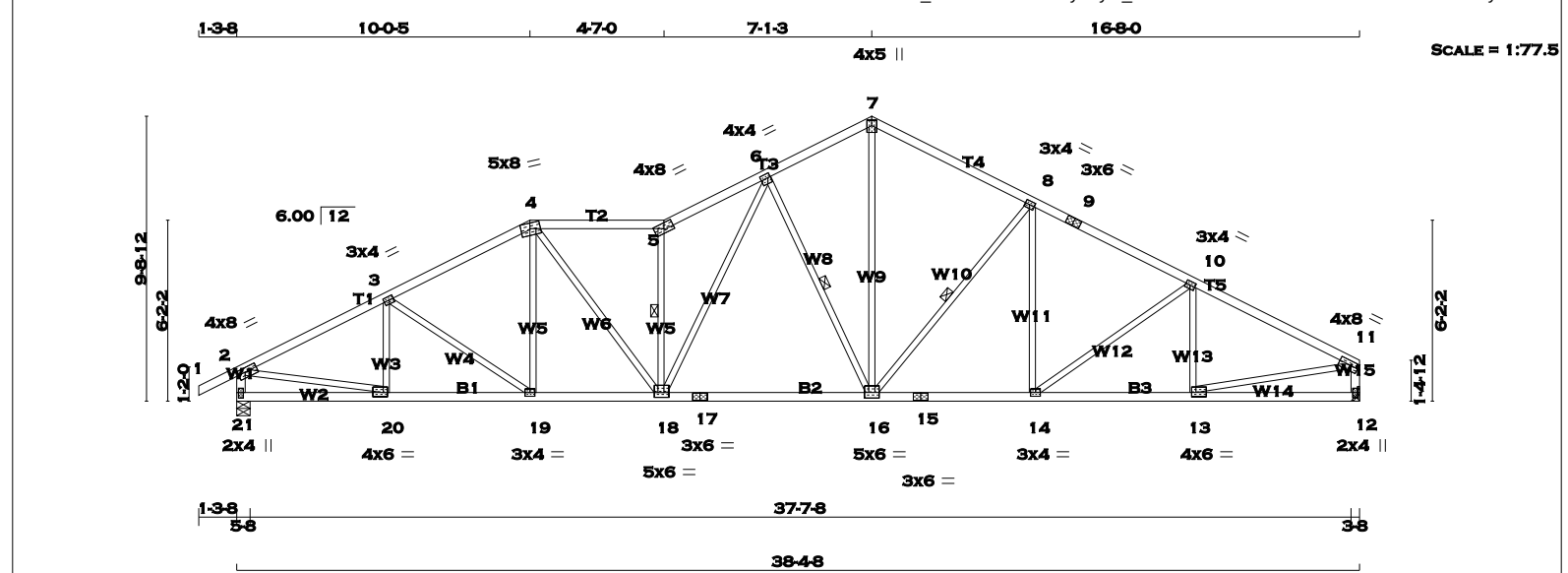
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17-5010

BUILDING DIVISION

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.

KOTT



TOTAL WEIGHT = 167 lb

[M][F]

| LUMBER   |      | N. L. G. A. RULES |        |        |  |
|----------|------|-------------------|--------|--------|--|
| CHORDS   | SIZE |                   | LUMBER | DESCR. |  |
| 1 - 4    | 2x4  | DRY               | No.2   | SPF    |  |
| 4 - 5    | 2x4  | DRY               | No.2   | SPF    |  |
| 5 - 7    | 2x4  | DRY               | No.2   | SPF    |  |
| 7 - 9    | 2x4  | DRY               | No.2   | SPF    |  |
| 9 - 11   | 2x4  | DRY               | No.2   | SPF    |  |
| 21 - 2   | 2x4  | DRY               | No.2   | SPF    |  |
| 12 - 11  | 2x4  | DRY               | No.2   | SPF    |  |
| 21 - 17  | 2x4  | DRY               | No.2   | SPF    |  |
| 17 - 15  | 2x4  | DRY               | No.2   | SPF    |  |
| 15 - 12  | 2x4  | DRY               | No.2   | SPF    |  |
| ALL WEBS | 2x3  | DRY               | No.2   | SPF    |  |
| EXCEPT   |      |                   |        |        |  |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |         |        |     |     |      |      |
|-----------------------------|---------|--------|-----|-----|------|------|
| JT                          | TYPE    | PLATES | W   | LEN | Y    | X    |
| 2                           | TMVW-t  | MT20   | 4.0 | 8.0 | 1.75 | 3.00 |
| 3, 8, 10                    |         |        |     |     |      |      |
| 3                           | TMWW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 4                           | TTWW-m  | MT20   | 5.0 | 8.0 | 2.25 | 3.75 |
| 5                           | TTW-h   | MT20   | 4.0 | 8.0 | 2.25 | 4.00 |
| 6                           | TMWW-t  | MT20   | 4.0 | 4.0 | 1.75 | 1.00 |
| 7                           | TTW+p   | MT20   | 4.0 | 5.0 | 2.25 | 2.00 |
| 9                           | TS-t    | MT20   | 3.0 | 6.0 |      |      |
| 11                          | TMVW-t  | MT20   | 4.0 | 8.0 | 1.75 | Edge |
| 12                          | BMV1+p  | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |
| 13                          | BMWW-t  | MT20   | 4.0 | 6.0 | 1.75 | 1.75 |
| 14                          | BMWW-t  | MT20   | 3.0 | 4.0 |      |      |
| 15                          | BS-t    | MT20   | 3.0 | 6.0 |      |      |
| 16                          | BMWWW-t | MT20   | 5.0 | 6.0 | 2.25 | 3.00 |
| 17                          | BS-t    | MT20   | 3.0 | 6.0 |      |      |
| 18                          | BMWWW-t | MT20   | 5.0 | 6.0 | 2.00 | 1.50 |
| 19                          | BMWW-t  | MT20   | 3.0 | 4.0 |      |      |
| 20                          | BMWW-t  | MT20   | 4.0 | 6.0 | 1.75 | 1.75 |
| 21                          | BMV1+p  | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |

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.



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

| BEARINGS |  |  |  | FACTORED       |      |      |  | MAXIMUM FACTORED |      |      |        | INPUT            |  |  |  | REQRD               |  |  |  |
|----------|--|--|--|----------------|------|------|--|------------------|------|------|--------|------------------|--|--|--|---------------------|--|--|--|
|          |  |  |  | GROSS REACTION |      |      |  | GROSS REACTION   |      |      |        | BRG              |  |  |  | BRG                 |  |  |  |
|          |  |  |  | JT             | VERT | HORZ |  | JT               | DOWN | HORZ | UPLIFT | IN-SX            |  |  |  | IN-SX               |  |  |  |
|          |  |  |  | 21             | 1925 | 0    |  | 21               | 1925 | 0    | 0      | 5-8              |  |  |  | 5-8                 |  |  |  |
|          |  |  |  | 12             | 1820 | 0    |  | 12               | 1820 | 0    | 0      | HANGER BY OTHERS |  |  |  | MIN. SEAT SIZE: 3-8 |  |  |  |

| UNFACTORED REACTIONS |          |                               |       |           |       |         |       |
|----------------------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| 1ST LCASE            |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
| JT                   | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 21                   | 1349     | 957 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 392 / 0 | 0 / 0 |
| 12                   | 1277     | 893 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 384 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 21

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.78 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 5-18. DBS = 8-0-0 . CBF = 84 LBS.
- 1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 6-16. DBS = 12-0-0 . CBF = 81 LBS.
- 1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 8-16. DBS = 20-0-0 . CBF = 72 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: (3)

| CHORDS |           |                           |                           | WEBS                       |       |       |                           |
|--------|-----------|---------------------------|---------------------------|----------------------------|-------|-------|---------------------------|
| MEMB.  |           | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC1) | MEMB. |       | MAX. FACTORED FORCE (LBS) |
| FR-TO  |           |                           |                           |                            | FR-TO |       |                           |
| 1-2    | 0 / 23    | -77.3                     | -77.3                     | 0.10 (1)                   | 10.00 | 20-3  | -318 / 0                  |
| 2-3    | -2699 / 0 | -77.3                     | -77.3                     | 0.35 (1)                   | 3.94  | 3-19  | -164 / 0                  |
| 3-4    | -2588 / 0 | -77.3                     | -77.3                     | 0.33 (1)                   | 4.03  | 19-4  | 0 / 177                   |
| 4-5    | -2795 / 0 | -77.3                     | -77.3                     | 0.31 (1)                   | 3.91  | 4-18  | 0 / 819                   |
| 5-6    | -3141 / 0 | -77.3                     | -77.3                     | 0.24 (1)                   | 3.78  | 18-5  | -1688 / 0                 |
| 6-7    | -2060 / 0 | -77.3                     | -77.3                     | 0.17 (1)                   | 4.59  | 18-6  | 0 / 1253                  |
| 7-8    | -2063 / 0 | -77.3                     | -77.3                     | 0.34 (1)                   | 4.42  | 6-16  | -1080 / 0                 |
| 8-9    | -2456 / 0 | -77.3                     | -77.3                     | 0.35 (1)                   | 4.11  | 16-7  | 0 / 1552                  |
| 9-10   | -2456 / 0 | -77.3                     | -77.3                     | 0.35 (1)                   | 4.11  | 16-8  | -577 / 0                  |
| 10-11  | -2565 / 0 | -77.3                     | -77.3                     | 0.42 (1)                   | 3.97  | 14-8  | 0 / 166                   |
| 21-2   | -1884 / 0 | 0.0                       | 0.0                       | 0.19 (1)                   | 6.12  | 14-10 | -141 / 0                  |
| 12-11  | -1777 / 0 | 0.0                       | 0.0                       | 0.18 (1)                   | 6.26  | 13-10 | -334 / 0                  |
|        |           |                           |                           |                            |       | 2-20  | 0 / 2465                  |
|        |           |                           |                           |                            |       | 13-11 | 0 / 2352                  |
| 21-20  | 0 / 0     | -17.5                     | -17.5                     | 0.10 (3)                   | 10.00 |       |                           |
| 20-19  | 0 / 2431  | -17.5                     | -17.5                     | 0.43 (1)                   | 10.00 |       |                           |
| 19-18  | 0 / 2299  | -17.5                     | -17.5                     | 0.41 (1)                   | 10.00 |       |                           |
| 18-17  | 0 / 2284  | -17.5                     | -17.5                     | 0.47 (1)                   | 10.00 |       |                           |
| 17-16  | 0 / 2284  | -17.5                     | -17.5                     | 0.47 (1)                   | 10.00 |       |                           |
| 16-15  | 0 / 2196  | -17.5                     | -17.5                     | 0.46 (1)                   | 10.00 |       |                           |
| 15-14  | 0 / 2196  | -17.5                     | -17.5                     | 0.46 (1)                   | 10.00 |       |                           |
| 14-13  | 0 / 2310  | -17.5                     | -17.5                     | 0.42 (1)                   | 10.00 |       |                           |
| 13-12  | 0 / 0     | -17.5                     | -17.5                     | 0.13 (3)                   | 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

LOADING IN ALL FLAT SECTIONS 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 (1.28")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.21")  
ALLOWABLE DEFL.(TL)= L/360 (1.28")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.40")

CSI: TC=0.42 (10-11:1), BC=0.47 (16-18:1), WB=0.55 (2-20:1), SSI=0.18 (10-11:1)

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) SHEAR SECTION (PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

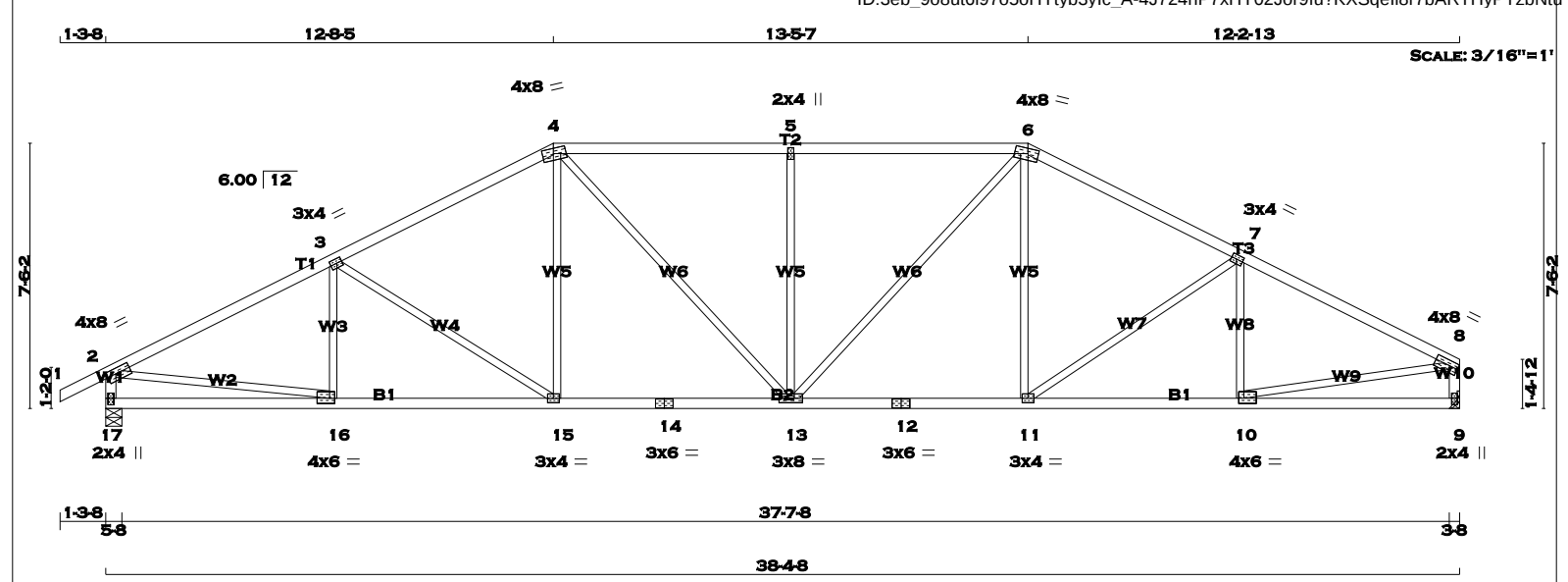
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (2) (INPUT = 0.90 )  
JSI METAL= 0.63 (17) (INPUT = 1.00 )

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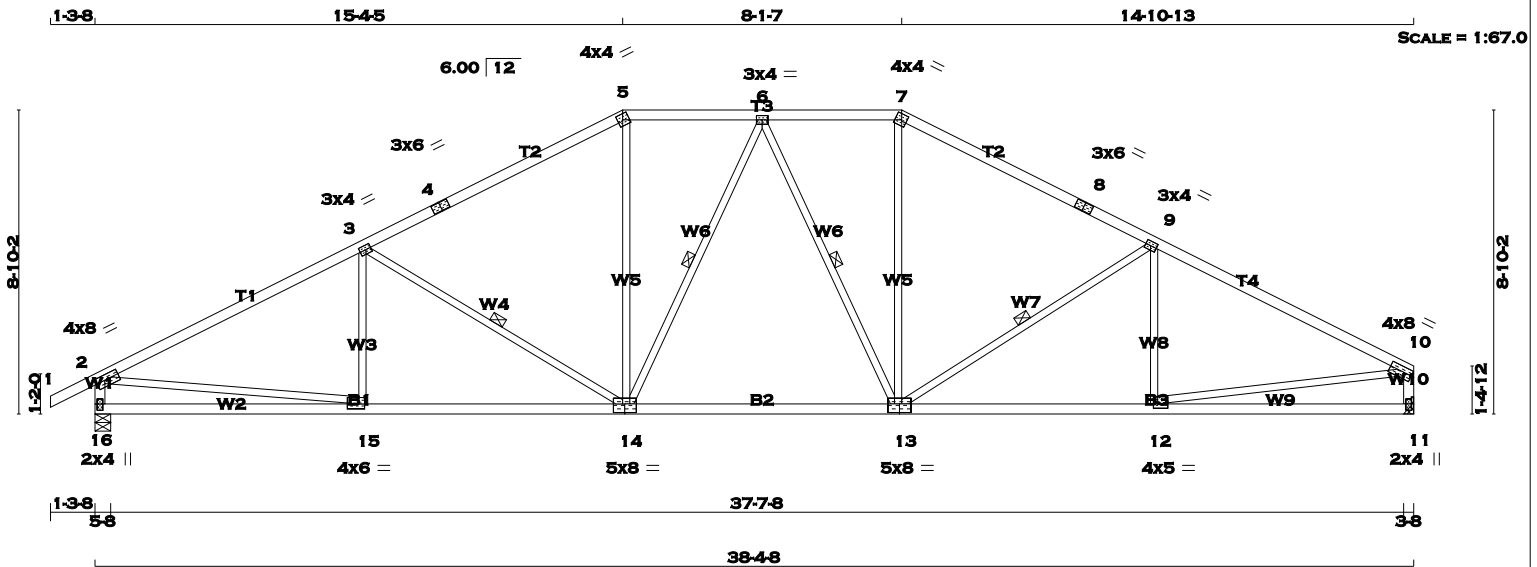


|                                                                 |  |  |  |                                                                                                      |  |  |  |                                 |  |                       |  |                     |  |                                                     |  |
|-----------------------------------------------------------------|--|--|--|------------------------------------------------------------------------------------------------------|--|--|--|---------------------------------|--|-----------------------|--|---------------------|--|-----------------------------------------------------|--|
|                                                                 |  |  |  |                                                                                                      |  |  |  |                                 |  | TOTAL WEIGHT = 155 lb |  |                     |  |                                                     |  |
|                                                                 |  |  |  |                                                                                                      |  |  |  |                                 |  | [M][F]                |  |                     |  |                                                     |  |
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR. |  |  |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b> |  |  |  |                                 |  |                       |  |                     |  | <b>DESIGN CRITERIA</b>                              |  |
|                                                                 |  |  |  | <b>BEARINGS</b>                                                                                      |  |  |  |                                 |  |                       |  |                     |  |                                                     |  |
| 1 - 4 2x4 DRY No.2 SPF                                          |  |  |  | FACTORED GROSS REACTION                                                                              |  |  |  | MAXIMUM FACTORED GROSS REACTION |  | INPUT BRG             |  | REQRD BRG           |  | SPECIFIED LOADS:                                    |  |
| 4 - 6 2x4 DRY No.2 SPF                                          |  |  |  |                                                                                                      |  |  |  |                                 |  |                       |  |                     |  | TOP CH. LL = 23.3 PSF                               |  |
| 6 - 8 2x4 DRY No.2 SPF                                          |  |  |  | JT VERT HORZ                                                                                         |  |  |  | DOWN HORZ UPLIFT                |  | IN-SX IN-SX           |  |                     |  | DL = 3.0 PSF                                        |  |
| 17 - 2 2x4 DRY No.2 SPF                                         |  |  |  | 17 1925 0                                                                                            |  |  |  | 1925 0 0                        |  | 5-8 5-8               |  |                     |  | BOT CH. LL = 0.0 PSF                                |  |
| 9 - 8 2x4 DRY No.2 SPF                                          |  |  |  | 9 1820 0                                                                                             |  |  |  | 1820 0 0                        |  | HANGER BY OTHERS      |  |                     |  | DL = 7.0 PSF                                        |  |
| 17 - 14 2x4 DRY No.2 SPF                                        |  |  |  |                                                                                                      |  |  |  |                                 |  |                       |  | MIN. SEAT SIZE: 3-8 |  | TOTAL LOAD = 33.3 PSF                               |  |
| 14 - 12 2x4 DRY No.2 SPF                                        |  |  |  |                                                                                                      |  |  |  |                                 |  |                       |  |                     |  |                                                     |  |
| 12 - 9 2x4 DRY No.2 SPF                                         |  |  |  |                                                                                                      |  |  |  |                                 |  |                       |  |                     |  |                                                     |  |
|                                                                 |  |  |  | <b>UNFACTORED REACTIONS</b>                                                                          |  |  |  |                                 |  |                       |  |                     |  | <b>SPACING = 24.0 IN./C/C</b>                       |  |
|                                                                 |  |  |  | 1ST LCASE                                                                                            |  |  |  | MAX./MIN. COMPONENT REACTIONS   |  |                       |  |                     |  |                                                     |  |
| ALL WEBS 2x3 DRY No.2 SPF                                       |  |  |  | JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL                                                       |  |  |  |                                 |  |                       |  |                     |  | LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12 |  |
| EXCEPT                                                          |  |  |  | 17 1349 957 / 0 0 / 0 0 / 0 0 / 0 392 / 0 0 / 0                                                      |  |  |  |                                 |  |                       |  |                     |  |                                                     |  |
| DRY: SEASONED LUMBER.                                           |  |  |  | 9 1277 893 / 0 0 / 0 0 / 0 0 / 0 384 / 0 0 / 0                                                       |  |  |  |                                 |  |                       |  |                     |  |                                                     |  |
|                                                                 |  |  |  |                                                                                                      |  |  |  |                                 |  |                       |  |                     |  | THIS TRUSS IS DESIGNED FOR RESIDENTIAL              |  |

|                                    |        |        |     |     |      |      |                                                                                  |  |  |                                                                                            |  |  |
|------------------------------------|--------|--------|-----|-----|------|------|----------------------------------------------------------------------------------|--|--|--------------------------------------------------------------------------------------------|--|--|
| <b>PLATES (table is in inches)</b> |        |        |     |     |      |      | <b>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 17</b>                  |  |  | THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010 |  |  |
| JT                                 | TYPE   | PLATES | W   | LEN | Y    | X    | <b>BRACING</b>                                                                   |  |  | THIS DESIGN COMPLIES WITH:                                                                 |  |  |
| 2                                  | TMVW-t | MT20   | 4.0 | 8.0 | 1.75 | 3.00 | TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.68 FT.                       |  |  | - PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014                                                |  |  |
| 3                                  | TMWW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 | MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED. |  |  | - CSA 086-09                                                                               |  |  |
|                                    |        |        |     |     |      |      |                                                                                  |  |  | - TPIC 2011                                                                                |  |  |

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TOTAL WEIGHT = 157 lb  
[M][F]

| LUMBER          |      |        |        | N. L. G. A. RULES |      |        |        |
|-----------------|------|--------|--------|-------------------|------|--------|--------|
| CHORDS          | SIZE | LUMBER | DESCR. | CHORDS            | SIZE | LUMBER | DESCR. |
| 1 - 4           | 2x4  | DRY    | No.2   | 1 - 4             | 2x4  | DRY    | No.2   |
| 4 - 5           | 2x4  | DRY    | No.2   | 4 - 5             | 2x4  | DRY    | No.2   |
| 5 - 7           | 2x4  | DRY    | No.2   | 5 - 7             | 2x4  | DRY    | No.2   |
| 7 - 8           | 2x4  | DRY    | No.2   | 7 - 8             | 2x4  | DRY    | No.2   |
| 8 - 10          | 2x4  | DRY    | No.2   | 8 - 10            | 2x4  | DRY    | No.2   |
| 16 - 2          | 2x4  | DRY    | No.2   | 16 - 2            | 2x4  | DRY    | No.2   |
| 11 - 10         | 2x4  | DRY    | No.2   | 11 - 10           | 2x4  | DRY    | No.2   |
| 16 - 14         | 2x4  | DRY    | No.2   | 16 - 14           | 2x4  | DRY    | No.2   |
| 14 - 13         | 2x4  | DRY    | No.2   | 14 - 13           | 2x4  | DRY    | No.2   |
| 13 - 11         | 2x4  | DRY    | No.2   | 13 - 11           | 2x4  | DRY    | No.2   |
| ALL WEBS EXCEPT | 2x3  | DRY    | No.2   | ALL WEBS EXCEPT   | 2x3  | DRY    | No.2   |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |         |        |     |     |      |      |
|-----------------------------|---------|--------|-----|-----|------|------|
| JT                          | TYPE    | PLATES | W   | LEN | Y    | X    |
| 2                           | TMVW-t  | MT20   | 4.0 | 8.0 | 1.75 | 3.00 |
| 3                           | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 4                           | TS-t    | MT20   | 3.0 | 6.0 |      |      |
| 5                           | TTW-h   | MT20   | 4.0 | 4.0 | 2.00 | 1.75 |
| 6                           | TMVW-t  | MT20   | 3.0 | 4.0 |      |      |
| 7                           | TTW-h   | MT20   | 4.0 | 4.0 | 2.00 | 1.75 |
| 8                           | TS-t    | MT20   | 3.0 | 6.0 |      |      |
| 9                           | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 10                          | TMVW-t  | MT20   | 4.0 | 8.0 | 1.75 | Edge |
| 11                          | BMV1+p  | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |
| 12                          | BMVW-t  | MT20   | 4.0 | 5.0 | 1.50 | 1.50 |
| 13                          | BSWWW-l | MT20   | 5.0 | 8.0 | 3.00 | 4.00 |
| 14                          | BSWWW-l | MT20   | 5.0 | 8.0 | 3.00 | 4.00 |
| 15                          | BMVW-t  | MT20   | 4.0 | 6.0 | 1.75 | 2.00 |
| 16                          | BMV1+p  | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |

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.

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

| BEARINGS |          |      |      | FACTORED |      |        |                  | MAXIMUM FACTORED |          |      |      | INPUT |      |        |                     | REQRD |          |      |      |
|----------|----------|------|------|----------|------|--------|------------------|------------------|----------|------|------|-------|------|--------|---------------------|-------|----------|------|------|
| JT       | COMBINED | SNOW | LIVE | DOWN     | HORZ | UPLIFT | IN-SX            | JT               | COMBINED | SNOW | LIVE | DOWN  | HORZ | UPLIFT | IN-SX               | JT    | COMBINED | SNOW | LIVE |
| 16       | 1925     | 0    | 1925 | 0        | 0    | 0      | 5-8              | 16               | 1925     | 0    | 1925 | 0     | 0    | 0      | 5-8                 | 16    | 1925     | 0    | 1925 |
| 11       | 1820     | 0    | 1820 | 0        | 0    | 0      | HANGER BY OTHERS | 11               | 1820     | 0    | 1820 | 0     | 0    | 0      | MIN. SEAT SIZE: 3-8 | 11    | 1820     | 0    | 1820 |

| UNFACTORED REACTIONS |           |           |           |           |    |           |           |
|----------------------|-----------|-----------|-----------|-----------|----|-----------|-----------|
| JT                   | 1ST LCASE | MAX./MIN. | COMPONENT | REACTIONS | JT | 1ST LCASE | MAX./MIN. |
| 16                   | 1349      | 957 / 0   | 0 / 0     | PERM.LIVE | 16 | 1349      | 957 / 0   |
| 11                   | 1277      | 893 / 0   | 0 / 0     | WIND      | 11 | 1277      | 893 / 0   |
|                      |           |           |           | DEAD      |    |           |           |
|                      |           |           |           | SOIL      |    |           |           |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 16

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.27 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 3-14, 6-14, 6-13, 9-13. DBS = 20-0-0 . CBF = 80 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: (3)

| CHORDS |               |          |                | WEBS  |               |          |            |
|--------|---------------|----------|----------------|-------|---------------|----------|------------|
| MEMB.  | MAX. FACTORED | FACTORED | VERT. LOAD     | MEMB. | MAX. FACTORED | FACTORED | VERT. LOAD |
| FR-TO  | FORCE (LBS)   | (PLF)    | LC1 MAX        | FR-TO | FORCE (LBS)   | (PLF)    | LC1 MAX    |
| 1-2    | 0 / 23        | -77.3    | -77.3 0.10 (1) | 15-3  | -131 / 87     | 0.05 (1) | 0.05 (1)   |
| 2-3    | -2776 / 0     | -77.3    | -77.3 0.92 (1) | 3-14  | -638 / 0      | 0.36 (1) | 0.36 (1)   |
| 3-4    | -2235 / 0     | -77.3    | -77.3 0.78 (1) | 14-5  | 0 / 640       | 0.14 (1) | 0.14 (1)   |
| 4-5    | -2235 / 0     | -77.3    | -77.3 0.78 (1) | 14-6  | -182 / 0      | 0.11 (1) | 0.11 (1)   |
| 5-6    | -1974 / 0     | -77.3    | -77.3 0.19 (1) | 6-13  | -231 / 0      | 0.15 (1) | 0.15 (1)   |
| 6-7    | -1953 / 0     | -77.3    | -77.3 0.19 (1) | 13-7  | 0 / 636       | 0.14 (1) | 0.14 (1)   |
| 7-8    | -2211 / 0     | -77.3    | -77.3 0.72 (1) | 13-9  | -532 / 0      | 0.29 (1) | 0.29 (1)   |
| 8-9    | -2211 / 0     | -77.3    | -77.3 0.72 (1) | 12-9  | -203 / 62     | 0.08 (1) | 0.08 (1)   |
| 9-10   | -2645 / 0     | -77.3    | -77.3 0.82 (1) | 2-15  | 0 / 2526      | 0.57 (1) | 0.57 (1)   |
| 16-2   | -1868 / 0     | 0.0      | 0.0 0.19 (1)   | 6-13  | 0 / 2417      | 0.54 (1) | 0.54 (1)   |
| 11-10  | -1764 / 0     | 0.0      | 0.0 0.18 (1)   | 6-28  |               |          |            |
| 16-15  | 0 / 0         | -17.5    | -17.5 0.24 (3) | 10-00 |               |          |            |
| 15-14  | 0 / 2511      | -17.5    | -17.5 0.52 (1) | 10-00 |               |          |            |
| 14-13  | 0 / 2051      | -17.5    | -17.5 0.45 (1) | 10-00 |               |          |            |
| 13-12  | 0 / 2393      | -17.5    | -17.5 0.50 (1) | 10-00 |               |          |            |
| 12-11  | 0 / 0         | -17.5    | -17.5 0.22 (3) | 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

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  
- TPC 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 (1.28")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.15")  
ALLOWABLE DEFL.(TL)= L/360 (1.28")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.32")

CSI: TC=0.92 (2-3:1), BC=0.52 (14-15:1), WB=0.57 (2-15:1), SSI=0.26 (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) SHEAR SECTION (PSI) (PLI) (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= 0.90 (12) (INPUT = 0.90 )  
JSI METAL= 0.72 (12) (INPUT = 1.00 )

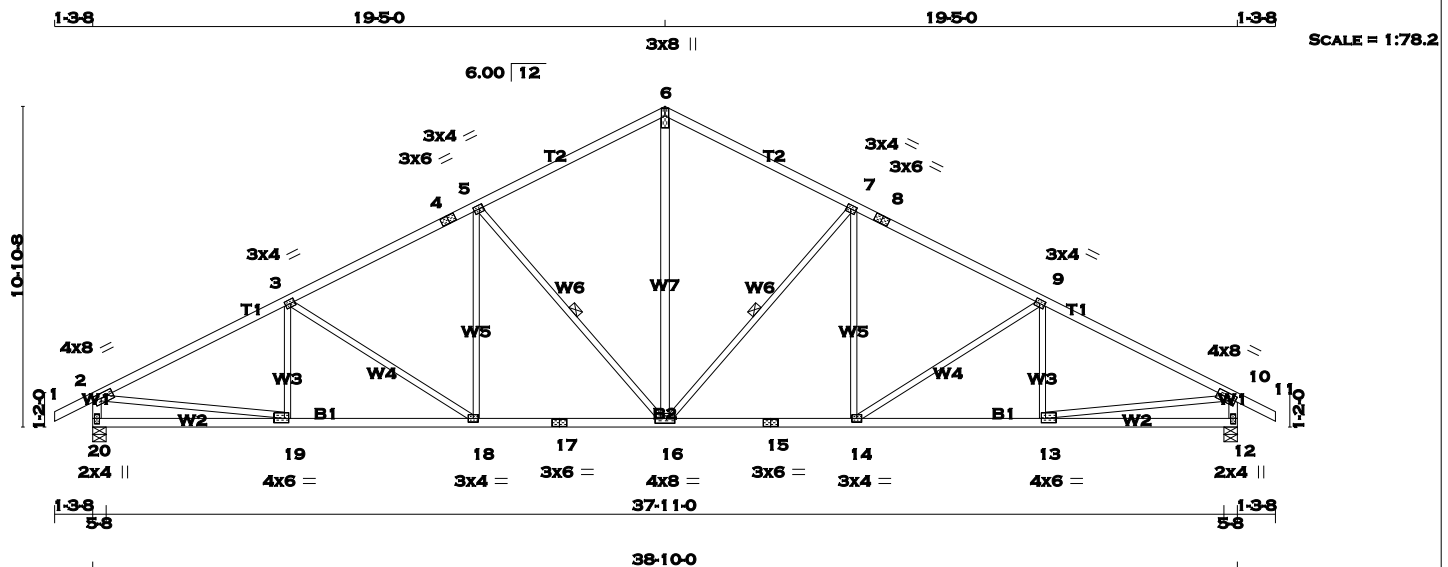


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READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.







TOTAL WEIGHT = 5 X 166 = 830 lb  
[M][F]

| LUMBER            |        |      |        | DESCR. |  |  |  |
|-------------------|--------|------|--------|--------|--|--|--|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER |        |  |  |  |
| 1 - 4             | 2x4    | DRY  | No.2   | SPF    |  |  |  |
| 4 - 6             | 2x4    | DRY  | No.2   | SPF    |  |  |  |
| 6 - 8             | 2x4    | DRY  | No.2   | SPF    |  |  |  |
| 8 - 11            | 2x4    | DRY  | No.2   | SPF    |  |  |  |
| 20 - 2            | 2x4    | DRY  | No.2   | SPF    |  |  |  |
| 12 - 10           | 2x4    | DRY  | No.2   | SPF    |  |  |  |
| 20 - 17           | 2x4    | DRY  | No.2   | SPF    |  |  |  |
| 17 - 15           | 2x4    | DRY  | No.2   | SPF    |  |  |  |
| 15 - 12           | 2x4    | DRY  | No.2   | SPF    |  |  |  |
| ALL WEBS EXCEPT   | 2x3    | DRY  | No.2   | SPF    |  |  |  |
| 16 - 6            | 2x4    | 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, 5, 7, 9                  |         |        |     |     |      |      |
| 3                           | TMWW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 4                           | TS-t    | MT20   | 3.0 | 6.0 |      |      |
| 6                           | TTW+p   | MT20   | 3.0 | 8.0 | Edge |      |
| 8                           | TS-t    | MT20   | 3.0 | 6.0 |      |      |
| 10                          | TMVW-t  | MT20   | 4.0 | 8.0 | 1.75 | 3.00 |
| 12                          | BMV1+p  | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |
| 13                          | BMWW-t  | MT20   | 4.0 | 6.0 | 1.75 | 1.75 |
| 14                          | BMWW-t  | MT20   | 3.0 | 4.0 |      |      |
| 15                          | BS-t    | MT20   | 3.0 | 6.0 |      |      |
| 16                          | BMWWW-t | MT20   | 4.0 | 8.0 |      |      |
| 17                          | BS-t    | MT20   | 3.0 | 6.0 |      |      |
| 18                          | BMWW-t  | MT20   | 3.0 | 4.0 |      |      |
| 19                          | BMWW-t  | MT20   | 4.0 | 6.0 | 1.75 | 1.75 |
| 20                          | BMV1+p  | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |

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.

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

| FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |        | REQRD BRG |       |
|-------------------------|------|---------------------------------|------|-----------|--------|-----------|-------|
| JT                      | VERT | HORZ                            | DOWN | HORZ      | UPLIFT | IN-SX     | IN-SX |
| 20                      | 1947 | 0                               | 1947 | 0         | 0      | 5-8       | 5-8   |
| 12                      | 1947 | 0                               | 1947 | 0         | 0      | 5-8       | 5-8   |

#### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
|-----------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 20        | 1364     | 967 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 396 / 0 | 0 / 0 |
| 12        | 1364     | 967 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 396 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 20, 12

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.66 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.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-16, 5-16. DBS = 18-0-0. CBF = 88 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: (3)

| CHORDS |                           |                           |                                | WEBS  |                           |                                |                                |
|--------|---------------------------|---------------------------|--------------------------------|-------|---------------------------|--------------------------------|--------------------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED VERT. LOAD (PLF) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED VERT. LOAD (PLF) | MAX. FACTORED VERT. LOAD (PLF) |
| FR-TO  |                           | FROM                      | TO                             | FR-TO |                           | FROM                           | TO                             |
| 1-2    | 0 / 23                    | -77.3                     | -77.3 0.10 (1)                 | 10.00 | 16-6                      | 0 / 1299                       | 0.21 (1)                       |
| 2-3    | -2790 / 0                 | -77.3                     | -77.3 0.61 (1)                 | 3.66  | 16-7                      | -783 / 0                       | 0.53 (1)                       |
| 3-4    | -2473 / 0                 | -77.3                     | -77.3 0.48 (1)                 | 3.99  | 14-7                      | 0 / 305                        | 0.07 (1)                       |
| 4-5    | -2473 / 0                 | -77.3                     | -77.3 0.48 (1)                 | 3.99  | 14-9                      | -360 / 0                       | 0.43 (1)                       |
| 5-6    | -1920 / 0                 | -77.3                     | -77.3 0.46 (1)                 | 4.41  | 13-9                      | -203 / 47                      | 0.06 (1)                       |
| 6-7    | -1920 / 0                 | -77.3                     | -77.3 0.46 (1)                 | 4.41  | 5-16                      | -783 / 0                       | 0.53 (1)                       |
| 7-8    | -2473 / 0                 | -77.3                     | -77.3 0.48 (1)                 | 3.99  | 18-5                      | 0 / 305                        | 0.07 (1)                       |
| 8-9    | -2473 / 0                 | -77.3                     | -77.3 0.48 (1)                 | 3.99  | 3-18                      | -360 / 0                       | 0.43 (1)                       |
| 9-10   | -2790 / 0                 | -77.3                     | -77.3 0.61 (1)                 | 3.66  | 19-3                      | -203 / 47                      | 0.06 (1)                       |
| 10-11  | 0 / 23                    | -77.3                     | -77.3 0.10 (1)                 | 10.00 | 2-19                      | 0 / 2535                       | 0.57 (1)                       |
| 20-2   | -1897 / 0                 | 0.0                       | 0.0 0.19 (1)                   | 6.10  | 13-10                     | 0 / 2535                       | 0.57 (1)                       |
| 12-10  | -1897 / 0                 | 0.0                       | 0.0 0.19 (1)                   | 6.10  |                           |                                |                                |
| 20-19  | 0 / 0                     | -17.5                     | -17.5 0.17 (3)                 | 10.00 |                           |                                |                                |
| 19-18  | 0 / 2514                  | -17.5                     | -17.5 0.48 (1)                 | 10.00 |                           |                                |                                |
| 18-17  | 0 / 2212                  | -17.5                     | -17.5 0.44 (1)                 | 10.00 |                           |                                |                                |
| 17-16  | 0 / 2212                  | -17.5                     | -17.5 0.44 (1)                 | 10.00 |                           |                                |                                |
| 16-15  | 0 / 2212                  | -17.5                     | -17.5 0.44 (1)                 | 10.00 |                           |                                |                                |
| 15-14  | 0 / 2212                  | -17.5                     | -17.5 0.44 (1)                 | 10.00 |                           |                                |                                |
| 14-13  | 0 / 2514                  | -17.5                     | -17.5 0.48 (1)                 | 10.00 |                           |                                |                                |
| 13-12  | 0 / 0                     | -17.5                     | -17.5 0.17 (3)                 | 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

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 (1.29")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.16")  
ALLOWABLE DEFL.(TL)= L/360 (1.29")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.30")

CSI: TC=0.61 (9-10:1), BC=0.48 (13-14:1), WB=0.57 (10-13:1), SSI=0.21 (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

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

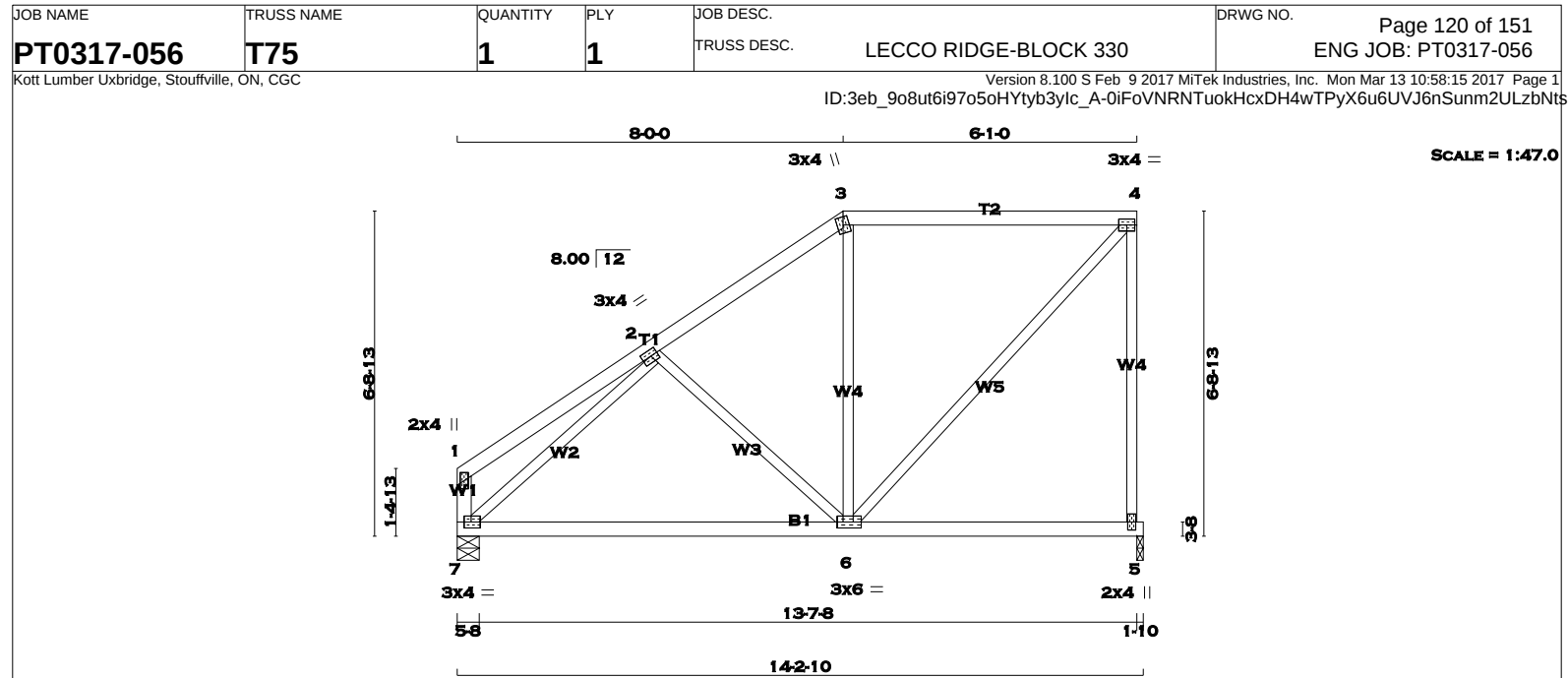
JSI GRIP= 0.90 (6) (INPUT = 0.90)  
JSI METAL= 0.63 (13) (INPUT = 1.00)



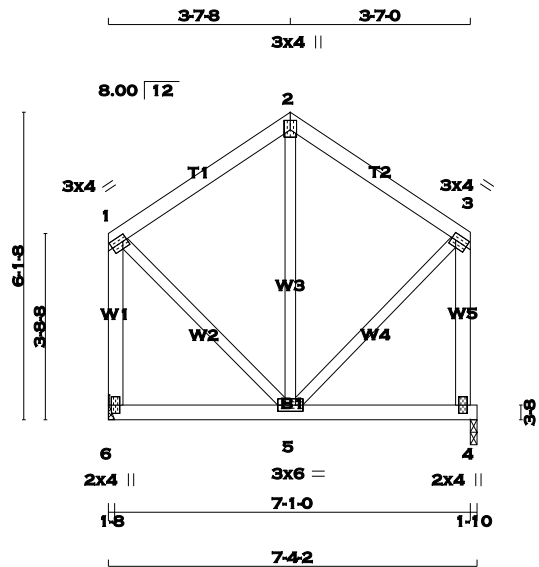
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READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE  
IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.





|                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR.<br>1 - 3 2x4 DRY No.2 SPF<br>3 - 4 2x4 DRY No.2 SPF<br>5 - 4 2x3 DRY No.2 SPF<br>7 - 1 2x4 DRY No.2 SPF<br>7 - 5 2x4 DRY No.2 SPF<br><br>ALL WEBS 2x3 DRY No.2 SPF<br>EXCEPT<br><br>DRY: SEASONED LUMBER.                                                                                           |  |  |  |  |  | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b><br>FACTORED MAXIMUM FACTORED INPUT REQD<br>GROSS REACTION GROSS REACTION BRG BRG<br>JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX<br>5 668 0 668 0 0 1-10 1-10<br>7 668 0 668 0 0 5-8 5-8<br><br><b>UNFACTORED REACTIONS</b><br>1ST LCASE MAX/MIN. COMPONENT REACTIONS<br>JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL<br>5 469 328 / 0 0 / 0 0 / 0 0 / 0 141 / 0 0 / 0<br>7 469 328 / 0 0 / 0 0 / 0 0 / 0 141 / 0 0 / 0<br><br>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5, 7<br><br><b>BRACING</b><br>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.<br>MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.<br><br>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.<br><br><b>LOADING</b><br>TOTAL LOAD CASES: (3)<br><br>CHORDS WEBS<br>MEMB. MAX. FACTORED FORCE VERT. LOAD LC1 MAX. MAX. MEMB. MAX. FACTORED FORCE MAX<br>(LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO (LBS) CSI (LC)<br>FR-TO FROM TO<br>1-2 0 / 20 -77.3 -77.3 0.20 (1) 10.00 2-6 -207 / 0 0.11 (1)<br>2-3 -469 / 0 -77.3 -77.3 0.16 (1) 6.25 6-3 -105 / 44 0.08 (1)<br>3-4 -371 / 0 -77.3 -77.3 0.37 (1) 6.25 6-4 0 / 545 0.12 (1)<br>5-4 -634 / 0 0.0 0.0 0.85 (1) 7.81 7-2 -720 / 0 0.35 (1)<br>7-1 -118 / 0 0.0 0.0 0.01 (1) 7.81<br><br>7-6 0 / 526 -17.5 -17.5 0.30 (3) 10.00<br>6-5 0 / 0 -17.5 -17.5 0.27 (3) 10.00 |  |  |  |  |  |  |  |  |  | <b>DESIGN CRITERIA</b><br><br>SPECIFIED LOADS:<br>TOP CH. LL = 23.3 PSF<br>DL = 3.0 PSF<br>BOT CH. LL = 0.0 PSF<br>DL = 7.0 PSF<br>TOTAL LOAD = 33.3 PSF<br><br><b>SPACING = 24.0 IN. C/C</b><br><br>LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12<br><br>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010<br><br>THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014<br>- CSA 086-09<br>- TPIC 2011<br><br>(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<br><br>ALLOWABLE DEFL.(LL)= L/360 (0.47")<br>CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")<br>ALLOWABLE DEFL.(TL)= L/360 (0.47")<br>CALCULATED VERT. DEFL.(TL) = L/ 999 (0.11")<br><br>CSI: TC=0.85 (4-5:1), BC=0.30 (6-7:3), WB=0.35 (2-7:1), SSI=0.18 (3-4:1)<br><br>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10<br>COMP=1.10 SHEAR=1.10 TENS= 1.10<br><br>COMPANION LIVE LOAD FACTOR = 0.50<br><br>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .<br><br>NAIL VALUES<br>PLATE GRIP(DRY) SHEAR SECTION<br>(PSI) (PLI) (PLI)<br>MAX MIN MAX MIN MAX MIN<br>MT20 618 354 1667 822 2284 1656<br><br>PLATE PLACEMENT TOL. = 0.250 inches<br><br>PLATE ROTATION TOL. = 5.0 Deg.<br><br>JSI GRIP= 0.88 (6) (INPUT = 0.90 )<br>JSI METAL= 0.25 (2) (INPUT = 1.00 ) |  |  |  |
| <b>PLATES (table is in inches)</b><br>JT TYPE PLATES W LEN Y X<br>1 TMV+p MT20 2.0 4.0<br>2 TMWW-t MT20 3.0 4.0 1.50 1.75<br>3 TTW+m MT20 3.0 4.0<br>4 TMVW-t MT20 3.0 4.0<br>5 BMV1+p MT20 2.0 4.0<br>6 BMWWW-t MT20 3.0 6.0 1.50 1.50<br>7 BMVW1-t MT20 3.0 4.0 1.50 1.75<br><br>A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED. |  |  |  |  |  | <div>RECEIVED<br/>TOWN OF MILTON<br/>MAR 29, 2017<br/>17-5010<br/>BUILDING DIVISION</div> <div>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.</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |



SCALE = 1:45.9

TOTAL WEIGHT = 2 X 38 = 76 lb  
[M][F]

| LUMBER            |        |      |        | DESCR. |
|-------------------|--------|------|--------|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER |        |
| 1 - 2             | 2x4    | DRY  | No.2   | SPF    |
| 2 - 3             | 2x4    | DRY  | No.2   | SPF    |
| 6 - 1             | 2x4    | DRY  | No.2   | SPF    |
| 4 - 3             | 2x4    | DRY  | No.2   | SPF    |
| 6 - 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 | 1.00 |
| 2  | TTW+p   | MT20   | 3.0 | 4.0 | 2.25 | 1.50 |
| 3  | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.00 |
| 4  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 5  | BMVWW-t | MT20   | 3.0 | 6.0 |      |      |
| 6  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

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  |      | REQRD            |       |
|----------|--|-------------------------|------|---------------------------------|------|--------|------|------------------|-------|
| JT       |  | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT | BRG  | IN-SX            | IN-SX |
| 6        |  | 342                     | 0    | 342                             | 0    | 0      |      | HANGER BY OTHERS |       |
| 4        |  | 342                     | 0    | 342                             | 0    | 0      | 1-10 | 1-10             |       |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE | MAX./MIN. | SNOW  | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |
|----|-----------|-----------|-------|-------|-----------|-------|--------|-------|
| 6  | 240       | 168 / 0   | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 72 / 0 | 0 / 0 |
| 4  | 240       | 168 / 0   | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 72 / 0 | 0 / 0 |

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

**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: (3)

| CHORDS |                           |                           |                | WEBS  |                           |           |  |
|--------|---------------------------|---------------------------|----------------|-------|---------------------------|-----------|--|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX. (LC)  | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. (LC) |  |
| FR-TO  |                           | FROM                      | TO             | FR-TO |                           |           |  |
| 1-2    | -133 / 0                  | -77.3                     | -77.3 0.13 (1) | 5-2   | -131 / 19                 | 0.08 (1)  |  |
| 2-3    | -133 / 0                  | -77.3                     | -77.3 0.13 (1) | 1-5   | 0 / 151                   | 0.03 (1)  |  |
| 6-1    | -317 / 0                  | 0.0                       | 0.0 0.07 (1)   | 5-3   | 0 / 153                   | 0.03 (1)  |  |
| 4-3    | -318 / 0                  | 0.0                       | 0.0 0.07 (1)   |       |                           |           |  |
| 6-5    | 0 / 0                     | -17.5                     | -17.5 0.06 (3) | 10.00 |                           |           |  |
| 5-4    | 0 / 0                     | -17.5                     | -17.5 0.06 (3) | 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**

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 (0.24")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.24")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.00")

CSI: TC=0.13 (1-2:1) , BC=0.06 (4-5:3) , WB=0.08 (2-5:1) , SSI=0.09 (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) SHEAR SECTION  
(PSI) (PLI) (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.

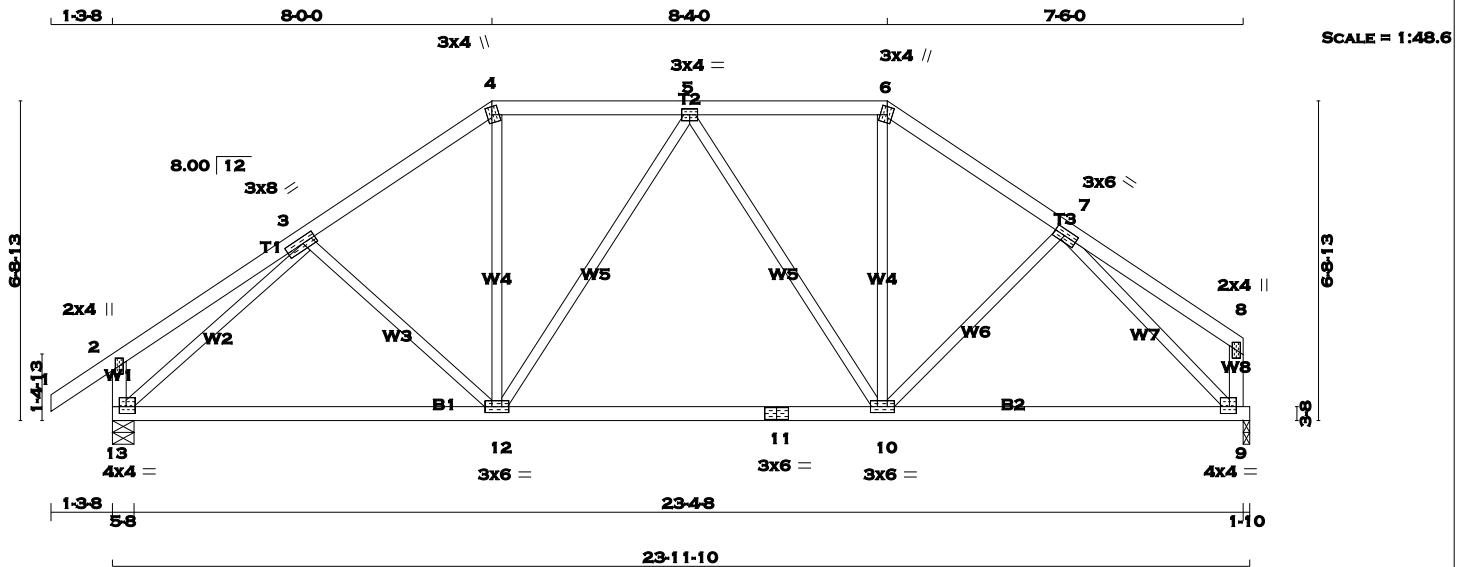
JSI GRIP= 0.48 (3) (INPUT = 0.90 )  
JSI METAL= 0.08 (1) (INPUT = 1.00 )



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TOTAL WEIGHT = 102 lb  
[M][F]

| LUMBER                |      |        |        |
|-----------------------|------|--------|--------|
| N. L. G. A. RULES     |      |        |        |
| CHORDS                | SIZE | LUMBER | DESCR. |
| 1 - 4                 | 2x4  | DRY    | No.2   |
| 4 - 6                 | 2x4  | DRY    | No.2   |
| 6 - 8                 | 2x4  | DRY    | No.2   |
| 13 - 2                | 2x4  | DRY    | No.2   |
| 9 - 8                 | 2x4  | DRY    | No.2   |
| 13 - 11               | 2x4  | DRY    | No.2   |
| 11 - 9                | 2x4  | DRY    | No.2   |
| ALL WEBS EXCEPT       | 2x3  | 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 |           |
| 3                                                                                | TMVW-t  | MT20   | 3.0 | 8.0 | 1.50 3.50 |
| 4                                                                                | TTW+m   | MT20   | 3.0 | 4.0 | 2.00 1.25 |
| 5                                                                                | TMVW-t  | MT20   | 3.0 | 4.0 |           |
| 6                                                                                | TTW+m   | MT20   | 3.0 | 4.0 | 2.00 1.25 |
| 7                                                                                | TMVW-t  | MT20   | 3.0 | 6.0 | 1.50 2.75 |
| 8                                                                                | TMV+p   | MT20   | 2.0 | 4.0 |           |
| 9                                                                                | BMVW1-t | MT20   | 4.0 | 4.0 | 1.75 1.75 |
| 10                                                                               | BMVW-t  | MT20   | 3.0 | 6.0 |           |
| 11                                                                               | BS-t    | MT20   | 3.0 | 6.0 |           |
| 12                                                                               | BMVW-t  | MT20   | 3.0 | 6.0 |           |
| 13                                                                               | BMVW1-t | MT20   | 4.0 | 4.0 | 1.75 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 |      |
| JT                      | VERT | JT                              | HORZ |
| 13                      | 1236 | 0                               | 1236 |
| 9                       | 1130 | 0                               | 1130 |

| UNFACTORED REACTIONS |          |                               |       |           |       |         |       |
|----------------------|----------|-------------------------------|-------|-----------|-------|---------|-------|
| 1ST LCASE            |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
| JT                   | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 13                   | 865      | 619 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 247 / 0 | 0 / 0 |
| 9                    | 793      | 555 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 238 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 13, 9

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.74 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: (3) |                      |       |                      |
| CHORDS                |                      | WEBS  |                      |
| MEMB.                 | FACTORED FORCE (LBS) | MEMB. | FACTORED FORCE (LBS) |
| FR-TO                 | FROM TO              | FR-TO | FROM TO              |
| 1-2                   | 0 / 29               | 3-12  | -91 / 29             |
| 2-3                   | 0 / 19               | 12-4  | 0 / 389              |
| 3-4                   | -1162 / 0            | 12-5  | -201 / 0             |
| 4-5                   | -956 / 0             | 5-10  | -261 / 0             |
| 5-6                   | -924 / 0             | 10-6  | 0 / 375              |
| 6-7                   | -1123 / 0            | 10-7  | -8 / 48              |
| 7-8                   | 0 / 18               | 13-3  | -1394 / 0            |
| 13-2                  | -226 / 0             | 7-9   | -1335 / 0            |
| 9-8                   | -113 / 0             |       |                      |
| 13-12                 | 0 / 1017             |       |                      |
| 12-11                 | 0 / 1063             |       |                      |
| 11-10                 | 0 / 1063             |       |                      |
| 10-9                  | 0 / 923              |       |                      |

**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 (0.79")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")  
ALLOWABLE DEFL.(TL)= L/360 (0.79")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.13")

CSI: TC=0.19 (2-3:1), BC=0.35 (10-12:3), WB=0.68 (3-13:1), SSI=0.16 (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) | SHEAR    | SECTION   |  |  |
| (PSI)       | (PLI)     | (PLI)    | (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.

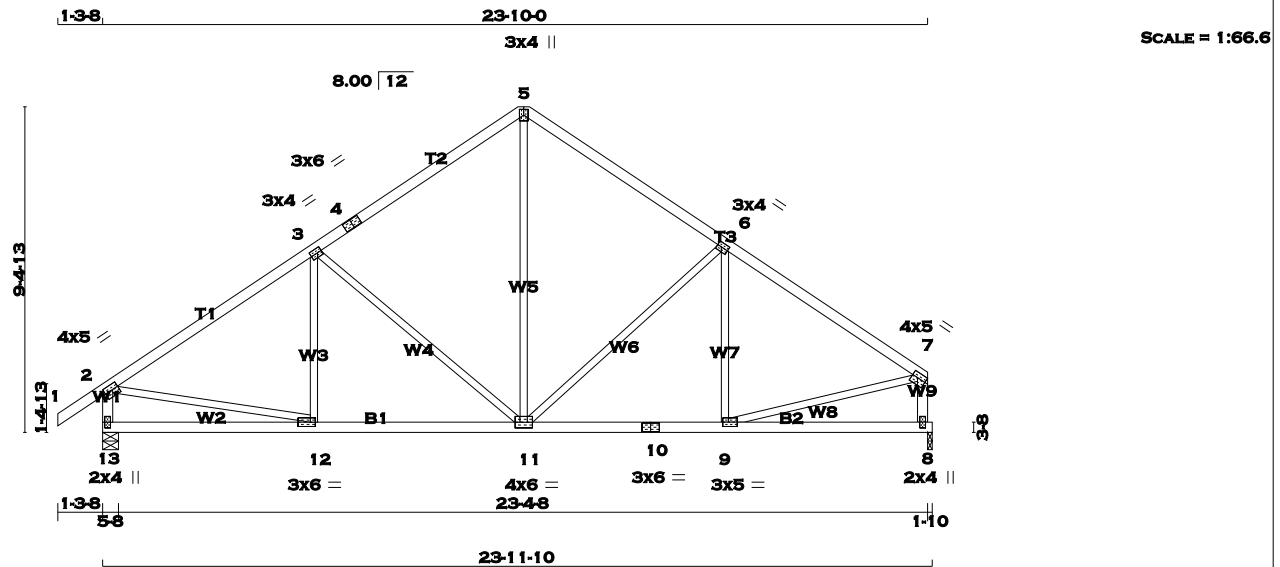
JSI GRIP= 0.90 (7) (INPUT = 0.90 )  
JSI METAL= 0.38 (13) (INPUT = 1.00 )

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TOTAL WEIGHT = 102 lb  
[M][F]

| LUMBER                |      |     |        |        |  |
|-----------------------|------|-----|--------|--------|--|
| N. L. G. A. RULES     |      |     |        |        |  |
| CHORDS                | SIZE |     | LUMBER | DESCR. |  |
| 1 - 4                 | 2x4  | DRY | No.2   | SPF    |  |
| 4 - 5                 | 2x4  | DRY | No.2   | SPF    |  |
| 5 - 7                 | 2x4  | DRY | No.2   | SPF    |  |
| 13- 2                 | 2x4  | DRY | No.2   | SPF    |  |
| 8 - 7                 | 2x4  | DRY | No.2   | SPF    |  |
| 13- 10                | 2x4  | DRY | No.2   | SPF    |  |
| 10 - 8                | 2x4  | DRY | No.2   | SPF    |  |
| ALL WEBS<br>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 | 5.0 | 1.75 2.00 |
| 3                                                                                | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.50 |
| 4                                                                                | TS-t   | MT20   | 3.0 | 6.0 |           |
| 5                                                                                | TTW+p  | MT20   | 3.0 | 4.0 |           |
| 6                                                                                | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 1.50 |
| 7                                                                                | TMVW-t | MT20   | 4.0 | 5.0 | 1.75 Edge |
| 8                                                                                | BMV1+p | MT20   | 2.0 | 4.0 |           |
| 9                                                                                | BMVW-t | MT20   | 3.0 | 5.0 | 1.50 2.00 |
| 10                                                                               | BS-t   | MT20   | 3.0 | 6.0 |           |
| 11                                                                               | BMVW-t | MT20   | 4.0 | 6.0 |           |
| 12                                                                               | BMVW-t | MT20   | 3.0 | 6.0 | 1.50 1.75 |
| 13                                                                               | 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. |        |        |     |     |           |

| 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     |       |
| 13                                                                                            |  | 1236                    | 0       | 1236                            | 0     | 0         | 5-8   | 5-8       |       |
| 8                                                                                             |  | 1130                    | 0       | 1130                            | 0     | 0         | 1-10  | 1-10      |       |
| UNFACTORED REACTIONS                                                                          |  |                         |         |                                 |       |           |       |           |       |
|                                                                                               |  | 1ST LCASE COMBINED      |         | MAX/MIN. SNOW                   |       | LIVE      |       | PERM.LIVE |       |
| JT                                                                                            |  | 865                     | 619 / 0 | 0 / 0                           | 0 / 0 | 0 / 0     | 0 / 0 | 247 / 0   | 0 / 0 |
| 8                                                                                             |  | 793                     | 555 / 0 | 0 / 0                           | 0 / 0 | 0 / 0     | 0 / 0 | 238 / 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 = 5.25 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

| LOADING               |  |                           |                           |              |                    |       |                           |              |          |
|-----------------------|--|---------------------------|---------------------------|--------------|--------------------|-------|---------------------------|--------------|----------|
| TOTAL LOAD CASES: (3) |  |                           |                           |              |                    |       |                           |              |          |
| CHORDS                |  |                           |                           |              | WEBS               |       |                           |              |          |
| MEMB.                 |  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (LBS) | MAX LC1 (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX LC1 (LC) |          |
| FR-TO                 |  |                           | FROM                      | TO           |                    | FR-TO |                           |              |          |
| 1-2                   |  | 0 / 29                    | -77.3                     | -77.3        | 0.10 (1)           | 10.00 | 12-3                      | -72 / 80     | 0.03 (1) |
| 2-3                   |  | -1261 / 0                 | -77.3                     | -77.3        | 0.41 (1)           | 5.25  | 3-11                      | -443 / 0     | 0.58 (1) |
| 3-4                   |  | -918 / 0                  | -77.3                     | -77.3        | 0.39 (1)           | 5.94  | 11-6                      | -368 / 0     | 0.47 (1) |
| 4-5                   |  | -918 / 0                  | -77.3                     | -77.3        | 0.39 (1)           | 5.94  | 9-6                       | -131 / 57    | 0.06 (1) |
| 5-6                   |  | -917 / 0                  | -77.3                     | -77.3        | 0.35 (1)           | 5.99  | 2-12                      | 0 / 1092     | 0.25 (1) |
| 6-7                   |  | -1182 / 0                 | -77.3                     | -77.3        | 0.37 (1)           | 5.44  | 9-7                       | 0 / 1038     | 0.23 (1) |
| 13-2                  |  | -1193 / 0                 | 0.0                       | 0.0          | 0.12 (1)           | 7.32  | 11-5                      | 0 / 636      | 0.14 (1) |
| 8-7                   |  | -1088 / 0                 | 0.0                       | 0.0          | 0.12 (1)           | 7.58  |                           |              |          |
| 13-12                 |  | 0 / 0                     | -17.5                     | -17.5        | 0.16 (3)           | 10.00 |                           |              |          |
| 12-11                 |  | 0 / 1075                  | -17.5                     | -17.5        | 0.25 (1)           | 10.00 |                           |              |          |
| 11-10                 |  | 0 / 1009                  | -17.5                     | -17.5        | 0.23 (1)           | 10.00 |                           |              |          |
| 10-9                  |  | 0 / 1009                  | -17.5                     | -17.5        | 0.23 (1)           | 10.00 |                           |              |          |
| 9-8                   |  | 0 / 0                     | -17.5                     | -17.5        | 0.14 (3)           | 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**

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 (0.79")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")  
ALLOWABLE DEFL.(TL)= L/360 (0.79")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.08")

CSI: TC=0.41 (2-3:1), BC=0.25 (11-12:1), WB=0.58 (3-11:1), SS=0.19 (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) SHEAR SECTION  
(PSI) (PLI) (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.

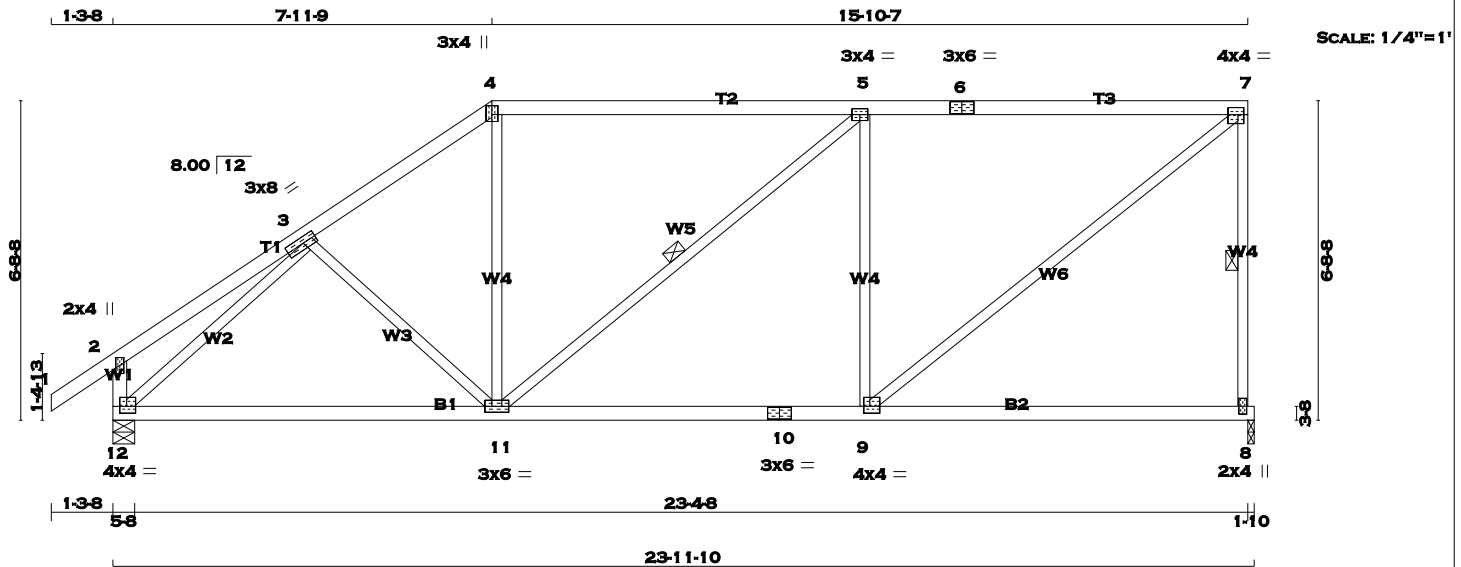
JSI GRIP= 0.90 (12) (INPUT = 0.90 )  
JSI METAL= 0.43 (2) (INPUT = 1.00 )



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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.





TOTAL WEIGHT = 99 lb [M]

| LUMBER                |      |        |        |
|-----------------------|------|--------|--------|
| N. L. G. A. RULES     |      |        |        |
| CHORDS                | SIZE | LUMBER | DESCR. |
| 1 - 4                 | 2x4  | DRY    | No.2   |
| 4 - 6                 | 2x4  | DRY    | No.2   |
| 6 - 7                 | 2x4  | DRY    | No.2   |
| 8 - 7                 | 2x3  | DRY    | No.2   |
| 12 - 2                | 2x4  | DRY    | No.2   |
| 12 - 10               | 2x4  | DRY    | No.2   |
| 10 - 8                | 2x4  | DRY    | No.2   |
| ALL WEBS EXCEPT       | 2x3  | 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 |           |
| 3                           | TMVW-t  | MT20   | 3.0 | 8.0 | 1.50 3.50 |
| 4                           | TTW+p   | MT20   | 3.0 | 4.0 | 2.25 1.50 |
| 5                           | TMVW-t  | MT20   | 3.0 | 4.0 |           |
| 6                           | TS-t    | MT20   | 3.0 | 6.0 |           |
| 7                           | TMVW-t  | MT20   | 4.0 | 4.0 | 1.75 1.50 |
| 8                           | BMV1+p  | MT20   | 2.0 | 4.0 |           |
| 9                           | BMVW-t  | MT20   | 4.0 | 4.0 | 1.75 1.50 |
| 10                          | BS-t    | MT20   | 3.0 | 6.0 |           |
| 11                          | BMVW-t  | MT20   | 3.0 | 6.0 |           |
| 12                          | BMVW1-t | MT20   | 4.0 | 4.0 | 1.75 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 |         |
| JT                   |  | VERT                    | HORZ    | DOWN                            | HORZ      | UPLIFT    | IN-SX   |
| 8                    |  | 1130                    | 0       | 1130                            | 0         | 0         | 1-10    |
| 12                   |  | 1236                    | 0       | 1236                            | 0         | 0         | 5-8     |
| UNFACTORED REACTIONS |  |                         |         |                                 |           |           |         |
|                      |  | 1ST LCASE               |         | MAX./MIN. COMPONENT REACTIONS   |           |           |         |
| JT                   |  | COMBINED                | SNOW    | LIVE                            | PERM.LIVE | WIND      | DEAD    |
| 8                    |  | 793                     | 555 / 0 | 0 / 0                           | 0 / 0     | 0 / 0     | 238 / 0 |
| 12                   |  | 865                     | 619 / 0 | 0 / 0                           | 0 / 0     | 0 / 0     | 247 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 8, 12

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.16 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 7-8. DBS = 12-0-0. CBF = 80 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-11. DBS = 20-0-0. CBF = 15 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: (3)

| C H O R D S |  |                           |                           | W E B S                        |       |      |                           |
|-------------|--|---------------------------|---------------------------|--------------------------------|-------|------|---------------------------|
| MEMB.       |  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED VERT. LOAD (PLF) | MEMB. |      | MAX. FACTORED FORCE (LBS) |
|             |  |                           |                           | LC1 MAX                        |       |      | MAX                       |
|             |  |                           |                           | CSI (LC)                       |       |      | CSI (LC)                  |
| FR-TO       |  |                           | FROM TO                   | UNBRAC LENGTH                  | FR-TO |      |                           |
| 1-2         |  | 0 / 29                    | -77.3 -77.3               | 0.10 (1)                       | 10.00 | 3-11 | -89 / 29                  |
| 2-3         |  | 0 / 19                    | -77.3 -77.3               | 0.19 (1)                       | 10.00 | 11-4 | 0 / 288                   |
| 3-4         |  | -1163 / 0                 | -77.3 -77.3               | 0.21 (1)                       | 5.66  | 11-5 | -121 / 0                  |
| 4-5         |  | -954 / 0                  | -77.3 -77.3               | 0.94 (1)                       | 4.35  | 9-5  | -686 / 0                  |
| 5-6         |  | -1048 / 0                 | -77.3 -77.3               | 0.97 (1)                       | 4.16  | 9-7  | 0 / 1340                  |
| 6-7         |  | -1048 / 0                 | -77.3 -77.3               | 0.97 (1)                       | 4.16  | 12-3 | -1393 / 0                 |
| 8-7         |  | -1072 / 0                 | 0.0 0.0                   | 0.31 (1)                       | 5.36  |      |                           |
| 12-2        |  | -225 / 0                  | 0.0 0.0                   | 0.02 (1)                       | 7.81  |      |                           |
| 12-11       |  | 0 / 1016                  | -17.5 -17.5               | 0.32 (3)                       | 10.00 |      |                           |
| 11-10       |  | 0 / 1048                  | -17.5 -17.5               | 0.33 (3)                       | 10.00 |      |                           |
| 10-9        |  | 0 / 1048                  | -17.5 -17.5               | 0.33 (3)                       | 10.00 |      |                           |
| 9-8         |  | 0 / 0                     | -17.5 -17.5               | 0.25 (3)                       | 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

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 (0.79")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (0.79")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.14")

CSI: TC=0.97 (5-7:1), BC=0.33 (9-11:3), WB=0.67 (3-12:1), SSI=0.30 (5-7:1)

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) SHEAR SECTION  
(PSI) (PLI) (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.

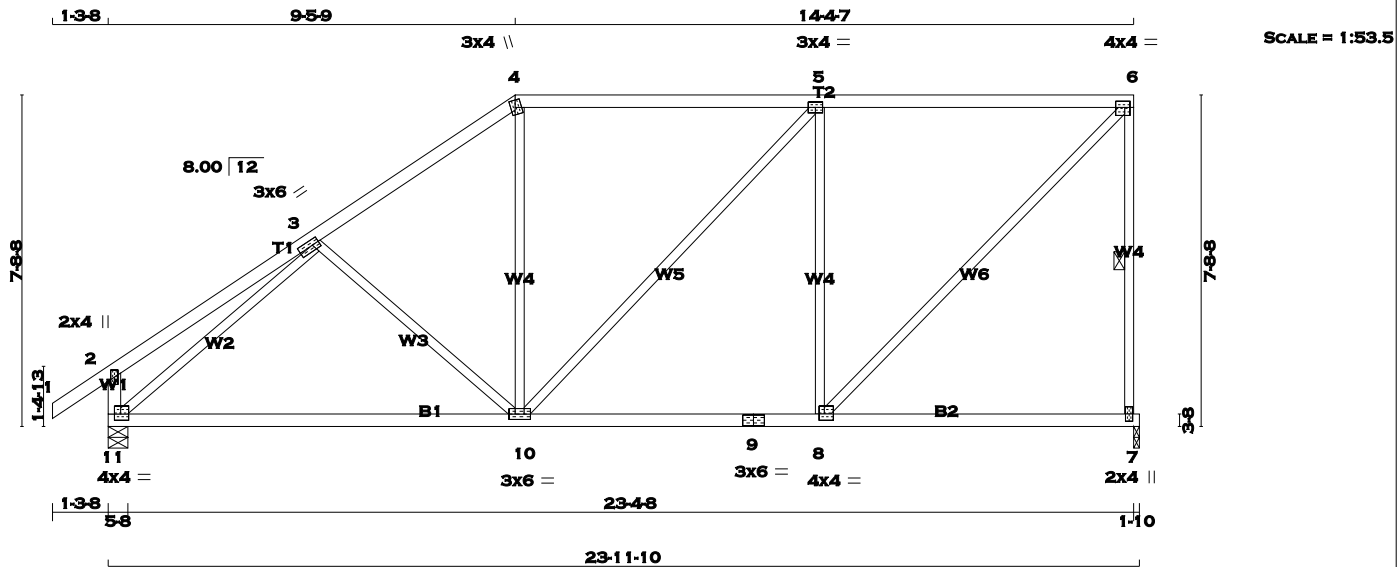
JSI GRIP= 0.90 (4) (INPUT = 0.90 )  
JSI METAL= 0.39 (7) (INPUT = 1.00 )



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TOTAL WEIGHT = 103 lb [M]

#### LUMBER

| N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
|-------------------|--------|------|--------|--------|
| 1 - 4             | 2x4    | DRY  | No.2   | SPF    |
| 4 - 6             | 2x4    | DRY  | No.2   | SPF    |
| 7 - 6             | 2x3    | DRY  | No.2   | SPF    |
| 11 - 2            | 2x4    | DRY  | No.2   | SPF    |
| 11 - 9            | 2x4    | DRY  | No.2   | SPF    |
| 9 - 7             | 2x4    | DRY  | No.2   | SPF    |

ALL WEBS 2x3 DRY No.2 SPF  
 EXCEPT

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| 2  | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 3  | TMVW-t  | MT20   | 3.0 | 6.0 | 1.50 | 2.00 |
| 4  | TTW+m   | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 5  | TMVW-t  | MT20   | 3.0 | 4.0 |      |      |
| 6  | TMVW-t  | MT20   | 4.0 | 4.0 | 1.75 | 1.50 |
| 7  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 8  | BMVW-t  | MT20   | 4.0 | 4.0 | 1.75 | 1.50 |
| 9  | BS-t    | MT20   | 3.0 | 6.0 |      |      |
| 10 | BMVW-t  | MT20   | 3.0 | 6.0 |      |      |
| 11 | BMVW1-t | MT20   | 4.0 | 4.0 | 1.75 | 1.75 |

A SIZE FOR SIZE SUBSTITUTION OF MITEK M120 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 |           |  |
| 7        | 1130 | 0                       | 1130 | 0                               | 0      | 1-10      | 1-10  |           |  |
| 11       | 1236 | 0                       | 1236 | 0                               | 0      | 5-8       | 5-8   |           |  |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX/MIN. SNOW | LIVE  | PERM. LIVE | WIND  | DEAD    | SOIL  |
|----|-----------|---------------|-------|------------|-------|---------|-------|
| 7  | 793       | 555 / 0       | 0 / 0 | 0 / 0      | 0 / 0 | 238 / 0 | 0 / 0 |
| 11 | 865       | 619 / 0       | 0 / 0 | 0 / 0      | 0 / 0 | 247 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 7, 11

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.15 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 6-7. DBS = 12-0-0. CBF = 81 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: (3)

| CHORDS |                           |                           |                           | WEBS  |                           |                           |          |
|--------|---------------------------|---------------------------|---------------------------|-------|---------------------------|---------------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC) |          |
| FR-TO  |                           | FROM TO                   |                           | FR-TO |                           |                           |          |
| 1-2    | 0 / 29                    | -77.3 -77.3               | 0.10 (1)                  | 10.00 | 3-10                      | -188 / 11                 | 0.14 (1) |
| 2-3    | 0 / 24                    | -77.3 -77.3               | 0.28 (1)                  | 10.00 | 10-4                      | 0 / 247                   | 0.06 (1) |
| 3-4    | -1091 / 0                 | -77.3 -77.3               | 0.31 (1)                  | 5.66  | 10-5                      | 0 / 63                    | 0.02 (3) |
| 4-5    | -890 / 0                  | -77.3 -77.3               | 0.75 (1)                  | 5.15  | 8-5                       | -737 / 0                  | 0.81 (1) |
| 5-6    | -847 / 0                  | -77.3 -77.3               | 0.75 (1)                  | 5.26  | 8-6                       | 0 / 1208                  | 0.27 (1) |
| 7-6    | -1076 / 0                 | 0.0 0.0                   | 0.40 (1)                  | 5.35  | 11-3                      | -1381 / 0                 | 0.97 (1) |
| 11-2   | -246 / 0                  | 0.0 0.0                   | 0.03 (1)                  | 7.81  |                           |                           |          |
| 11-10  | 0 / 1029                  | -17.5 -17.5               | 0.40 (3)                  | 10.00 |                           |                           |          |
| 10-9   | 0 / 847                   | -17.5 -17.5               | 0.40 (3)                  | 10.00 |                           |                           |          |
| 9-8    | 0 / 847                   | -17.5 -17.5               | 0.40 (3)                  | 10.00 |                           |                           |          |
| 8-7    | 0 / 0                     | -17.5 -17.5               | 0.19 (3)                  | 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

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 (0.79")  
 CALCULATED VERT. DEFL.(LL) = L/999 (0.05")  
 ALLOWABLE DEFL.(TL)= L/360 (0.79")  
 CALCULATED VERT. DEFL.(TL) = L/999 (0.25")

CSI: TC=0.75 (4-5:1), BC=0.40 (10-11:3), WB=0.97 (3-11:1), SSI=0.27 (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) SHEAR SECTION  
 (PSI) (PLI) (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= 0.89 (3) (INPUT = 0.90 )  
 JSI METAL= 0.39 (11) (INPUT = 1.00 )



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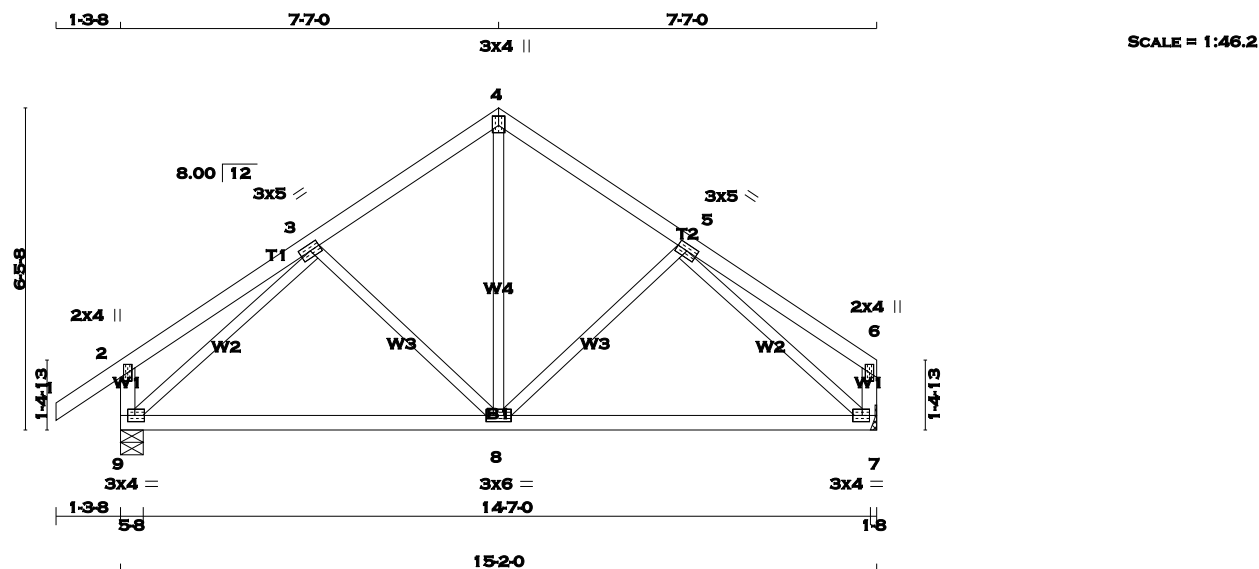
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Kott Lumber Uxbridge, Stouffville, ON, CGC

Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Mon Mar 13 10:58:17 2017 Page 1

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TOTAL WEIGHT = 2 X 63 = 126 lb  
[M][F]

| LUMBER                    |        |      |        |        |
|---------------------------|--------|------|--------|--------|
| N. L. G. A. RULES         | CHORDS | SIZE | LUMBER | DESCR. |
| 1 - 4                     | 2x4    | DRY  | No.2   | SPF    |
| 4 - 6                     | 2x4    | DRY  | No.2   | SPF    |
| 9 - 2                     | 2x4    | DRY  | No.2   | SPF    |
| 7 - 6                     | 2x4    | DRY  | No.2   | SPF    |
| 9 - 7                     | 2x4    | DRY  | No.2   | SPF    |
| ALL WEBS 2x3 DRY No.2 SPF |        |      |        |        |
| EXCEPT                    |        |      |        |        |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| 2  | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 3  | TMWW-t  | MT20   | 3.0 | 5.0 |      |      |
| 4  | TTW+p   | MT20   | 3.0 | 4.0 | 2.25 | 1.50 |
| 5  | TMWW-t  | MT20   | 3.0 | 5.0 |      |      |
| 6  | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 7  | BMVW1-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |
| 8  | BMWW-t  | MT20   | 3.0 | 6.0 |      |      |
| 9  | BMVW1-t | MT20   | 3.0 | 4.0 | 1.50 | 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**

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG                            | REQRD BRG |
|----|-------------------------|------|---------------------------------|------|--------------------------------------|-----------|
|    | VERT                    | HORZ | DOWN                            | HORZ | IN-SX                                | IN-SX     |
| 9  | 825                     | 0    | 825                             | 0    | 5-8                                  | 5-8       |
| 7  | 719                     | 0    | 719                             | 0    | HANGER BY OTHERS MIN. SEAT SIZE: 1-8 |           |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |           | WIND  | DEAD    | SOIL  |
|----|-----------|---------|-------------------------------|-----------|-------|---------|-------|
|    | COMBINED  | SNOW    | LIVE                          | PERM.LIVE |       |         |       |
| 9  | 577       | 417 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 160 / 0 | 0 / 0 |
| 7  | 505       | 353 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 152 / 0 | 0 / 0 |

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

**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: (3)

| CHORDS |                           |                  |                                  | WEBS  |                           |                                  |  |
|--------|---------------------------|------------------|----------------------------------|-------|---------------------------|----------------------------------|--|
| MEMB.  | MAX. FACTORED FORCE (LBS) | VERT. LOAD (PLF) | MAX. FACTORED (LC) UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED (LC) UNBRAC LENGTH |  |
| FR-TO  |                           | FROM TO          |                                  | FR-TO |                           |                                  |  |
| 1-2    | 0 / 29                    | -77.3 -77.3      | 0.10 (1)                         | 8-4   | 0 / 391                   | 0.09 (1)                         |  |
| 2-3    | 0 / 19                    | -77.3 -77.3      | 0.18 (1)                         | 8-5   | -165 / 4                  | 0.08 (1)                         |  |
| 3-4    | -576 / 0                  | -77.3 -77.3      | 0.14 (1)                         | 3-8   | -165 / 4                  | 0.08 (1)                         |  |
| 4-5    | -576 / 0                  | -77.3 -77.3      | 0.14 (1)                         | 9-3   | -806 / 0                  | 0.35 (1)                         |  |
| 5-6    | 0 / 19                    | -77.3 -77.3      | 0.18 (1)                         | 5-7   | -806 / 0                  | 0.35 (1)                         |  |
| 9-2    | -219 / 0                  | 0.0 0.0          | 0.02 (1)                         |       |                           |                                  |  |
| 7-6    | -113 / 0                  | 0.0 0.0          | 0.01 (1)                         |       |                           |                                  |  |
| 9-8    | 0 / 584                   | -17.5 -17.5      | 0.33 (3)                         |       |                           |                                  |  |
| 8-7    | 0 / 584                   | -17.5 -17.5      | 0.33 (3)                         |       |                           |                                  |  |

**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**

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 (0.51")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.51")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.08")

CSI: TC=0.18 (2-3:1), BC=0.33 (8-9:3), WB=0.35 (3-9:1), SSI=0.12 (3-4:1)

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) | SHEAR    | SECTION   |
|-------|-----------|----------|-----------|
|       | (PSI)     | (PLI)    | (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.

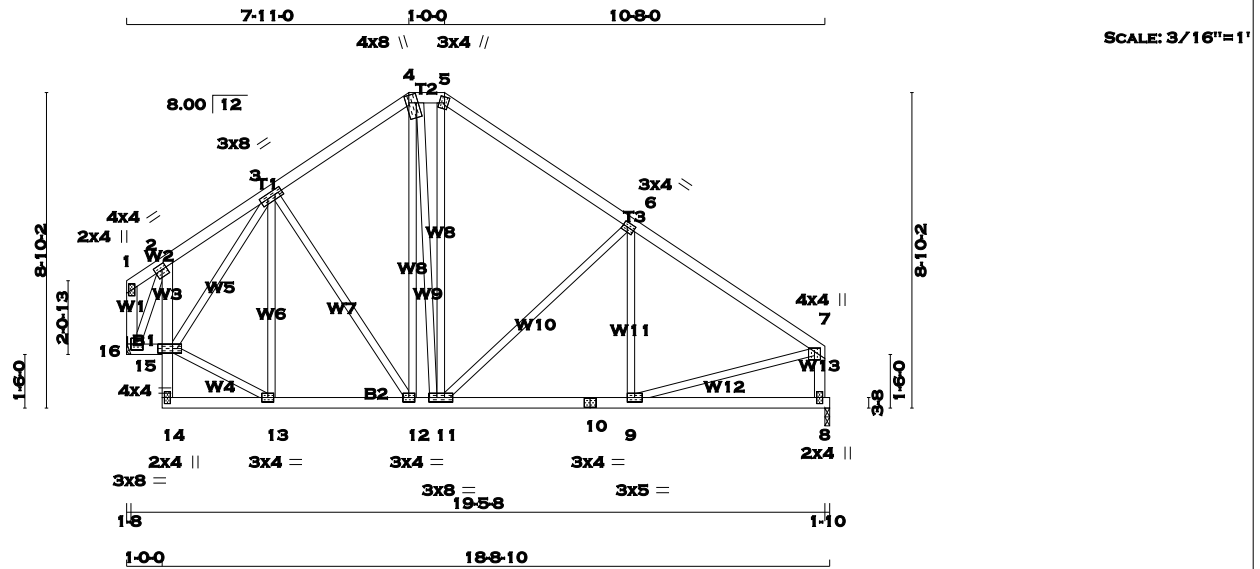
JSI GRIP= 0.89 (9) (INPUT = 0.90 )  
JSI METAL= 0.23 (3) (INPUT = 1.00 )



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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.





TOTAL WEIGHT = 110 lb  
[M][F]

| LUMBER            |        |      |        | DESCR. |  |
|-------------------|--------|------|--------|--------|--|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER |        |  |
| 1 - 4             | 2x4    | DRY  | No.2   | SPF    |  |
| 4 - 5             | 2x4    | DRY  | No.2   | SPF    |  |
| 5 - 7             | 2x4    | DRY  | No.2   | SPF    |  |
| 16 - 1            | 2x4    | DRY  | No.2   | SPF    |  |
| 8 - 7             | 2x4    | DRY  | No.2   | SPF    |  |
| 14 - 10           | 2x4    | DRY  | No.2   | SPF    |  |
| 10 - 8            | 2x4    | DRY  | No.2   | SPF    |  |
| 16 - 15           | 2x4    | DRY  | No.2   | SPF    |  |
| ALL WEBS EXCEPT   | 2x3    | DRY  | No.2   | SPF    |  |
| 14 - 2            | 2x4    | DRY  | No.2   | SPF    |  |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |          |        |     |     |           |
|-----------------------------|----------|--------|-----|-----|-----------|
| JT                          | TYPE     | PLATES | W   | LEN | Y X       |
| 1                           | TMV+p    | MT20   | 2.0 | 4.0 |           |
| 2                           | TMWW-t   | MT20   | 4.0 | 4.0 | 1.75 1.50 |
| 3                           | TMWWW-t  | MT20   | 3.0 | 8.0 |           |
| 4                           | TTWW+m   | MT20   | 4.0 | 8.0 | 2.50 1.00 |
| 5                           | TTW+m    | MT20   | 3.0 | 4.0 | 2.00 1.25 |
| 6                           | TMWW-t   | MT20   | 3.0 | 4.0 | 1.50 1.50 |
| 7                           | TMVW+p   | MT20   | 4.0 | 4.0 | 1.25 2.00 |
| 8                           | BMV1+p   | MT20   | 2.0 | 4.0 |           |
| 9                           | BMWW-t   | MT20   | 3.0 | 5.0 |           |
| 10                          | BS-t     | MT20   | 3.0 | 4.0 |           |
| 11                          | BMWWW-t  | MT20   | 3.0 | 8.0 |           |
| 12                          | BMWW-t   | MT20   | 3.0 | 4.0 |           |
| 13                          | BMWW-t   | MT20   | 3.0 | 4.0 |           |
| 14                          | BMW+w    | MT20   | 2.0 | 4.0 |           |
| 15                          | BWMWW*-l | MT20   | 3.0 | 8.0 | Edge 5.00 |
| 16                          | BMVW1-t  | MT20   | 4.0 | 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.

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

| BEARINGS |  | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT |                     | REQRD |       |
|----------|--|-------------------------|------|---------------------------------|------|-------|---------------------|-------|-------|
| JT       |  | VERT                    | HORZ | DOWN                            | HORZ | BRG   | IN-SX               | BRG   | IN-SX |
| 16       |  | 933                     | 0    | 933                             | 0    | 0     | HANGER BY OTHERS    |       |       |
| 8        |  | 929                     | 0    | 929                             | 0    | 0     | MIN. SEAT SIZE: 1-8 | 1-10  | 1-10  |

| UNFACTORED REACTIONS |  | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |           |
|----------------------|--|-----------|---------|-------------------------------|-----------|
| JT                   |  | COMBINED  | SNOW    | LIVE                          | PERM.LIVE |
| 16                   |  | 655       | 456 / 0 | 0 / 0                         | 0 / 0     |
| 8                    |  | 652       | 456 / 0 | 0 / 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 = 6.07 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

MAX. UNBRACED INTERIOR CHORD LENGTH = 10.00 FT.

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

| LOADING |             | TOTAL LOAD CASES: (3) |                          |
|---------|-------------|-----------------------|--------------------------|
| CHORDS  |             | FACTORED              |                          |
| MEMB.   | FORCE (LBS) | VERT. LOAD (PLF)      | MAX. UNBRAC. LENGTH (LC) |
| FR-TO   |             | FROM TO               |                          |
| 1-2     | 0 / 4       | -77.3 -77.3           | 0.01 (1)                 |
| 2-3     | -516 / 0    | -77.3 -77.3           | 0.12 (1)                 |
| 3-4     | -636 / 0    | -77.3 -77.3           | 0.13 (1)                 |
| 4-5     | -530 / 0    | -77.3 -77.3           | 0.01 (1)                 |
| 5-6     | -664 / 0    | -77.3 -77.3           | 0.29 (1)                 |
| 6-7     | -918 / 0    | -77.3 -77.3           | 0.30 (1)                 |
| 16-1    | -37 / 0     | 0.0 0.0               | 0.00 (1)                 |
| 8-7     | -890 / 0    | 0.0 0.0               | 0.10 (1)                 |
| 14-13   | -1 / 5      | -17.5 -17.5           | 0.04 (3)                 |
| 13-12   | 0 / 525     | -17.5 -17.5           | 0.11 (1)                 |
| 12-11   | 0 / 516     | -17.5 -17.5           | 0.12 (1)                 |
| 11-10   | 0 / 787     | -17.5 -17.5           | 0.19 (1)                 |
| 10-9    | 0 / 787     | -17.5 -17.5           | 0.19 (1)                 |
| 9-8     | 0 / 0       | -17.5 -17.5           | 0.13 (3)                 |
| 16-15   | 0 / 403     | -17.5 -17.5           | 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

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 (0.65")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.65")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")  
CSI: TC=0.30 (6-7:1), BC=0.19 (9-11:1), WB=0.37 (6-11:1), SSI=0.17 (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) | SHEAR SECTION              |
| (PSI)           | (PLI)                      |
| MAX MIN         | MAX MIN                    |
| MT20            | 618 354 1667 822 2284 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

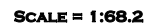
JSI GRIP= 0.88 (3) (INPUT = 0.90 )  
JSI METAL= 0.24 (7) (INPUT = 1.00 )



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TOTAL WEIGHT =  $3 \times 98 = 294$  lb

JSI GRIP= 0.88 (10) (INPUT = 0.90 )  
JSI METAL= 0.24 (6) (INPUT = 1.00 )

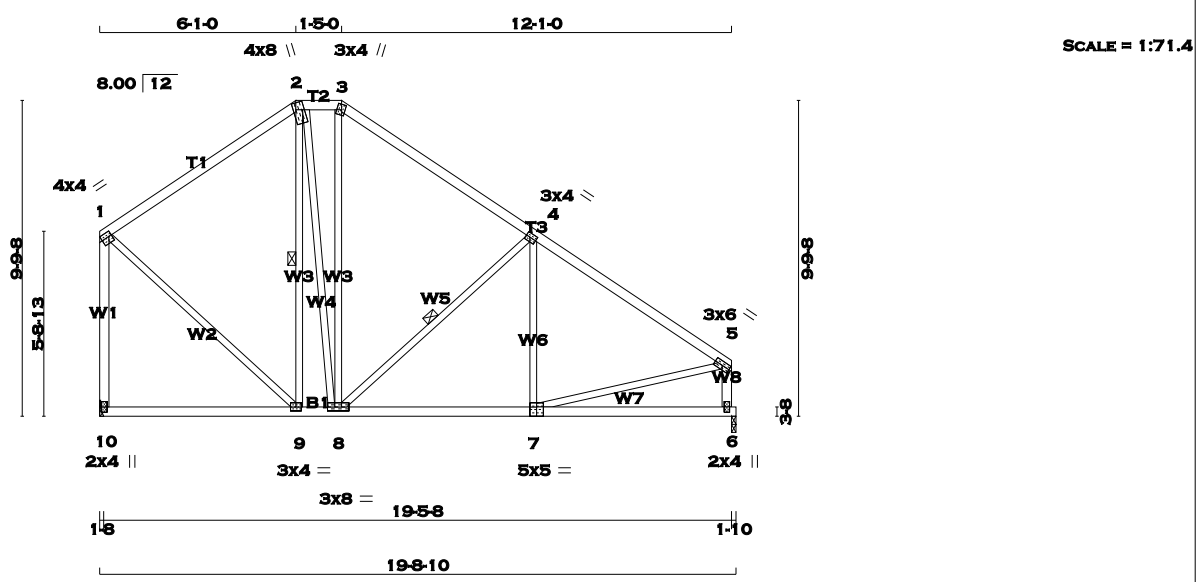
| C H O R D S |               |                  |       |              | W E B S     |       |               |              |  |
|-------------|---------------|------------------|-------|--------------|-------------|-------|---------------|--------------|--|
| MEMB.       | MAX. FACTORED | FACTORED         |       |              | MAX. UNBRAC | MEMB. | MAX. FACTORED | MAX CSI (LC) |  |
|             | FORCE (LBS)   | VERT. LOAD (PLF) | LC1   | MAX CSI (LC) |             |       | FORCE (LBS)   |              |  |
| FR-TO       |               | FROM             | TO    |              | LENGTH      | FR-TO |               |              |  |
| 1-2         | 0 / 7         | -77.3            | -77.3 | 0.02 (1)     | 10.00       | 11-3  | -206 / 0      | 0.14 (1)     |  |
| 2-3         | -520 / 0      | -77.3            | -77.3 | 0.13 (1)     | 11          | 6.25  | 3-10          | -49 / 0      |  |
| 3-4         | -626 / 0      | -77.3            | -77.3 | 0.15 (1)     | 6.25        | 10.4  | 0 / 389       | 0.09 (1)     |  |
| 4-5         | -639 / 0      | -77.3            | -77.3 | 0.32 (1)     | 6.25        | 10-5  | -386 / 0      | 0.44 (1)     |  |
| 5-6         | -917 / 0      | -77.3            | -77.3 | 0.33 (1)     | 6.03        | 8-5   | -85 / 69      | 0.04 (1)     |  |
| 14-1        | -31 / 0       | 0.0              | 0.0   | 0.00 (1)     | 7.81        | 14-2  | -977 / 0      | 0.16 (1)     |  |
| 7-6         | -888 / 0      | 0.0              | 0.0   | 0.10 (1)     | 7.81        | 8-6   | 0 / 811       | 0.18 (1)     |  |
|             |               |                  |       |              |             | 12-13 | 0 / 24        | 0.02 (1)     |  |
| 12-11       | -2 / 5        | -17.5            | -17.5 | 0.04 (3)     | 10.00       | 13-2  | 0 / 447       | 0.09 (1)     |  |
| 11-10       | 0 / 534       | -17.5            | -17.5 | 0.13 (1)     | 10.00       | 13-3  | -162 / 0      | 0.08 (1)     |  |
| 10-9        | 0 / 787       | -17.5            | -17.5 | 0.20 (1)     | 10.00       | 13-11 | 0 / 596       | 0.13 (1)     |  |
| 9-8         | 0 / 787       | -17.5            | -17.5 | 0.20 (1)     | 10.00       |       |               |              |  |
| 8-7         | 0 / 0         | -17.5            | -17.5 | 0.14 (3)     | 10.00       |       |               |              |  |
| 14-13       | 0 / 406       | -17.5            | -17.5 | 0.07 (1)     | 10.00       |       |               |              |  |



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TOTAL WEIGHT = 101 lb  
[M][F]

| 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 - 5                 | 2x4  | DRY    | No.2   | SPF |
| 10 - 1                | 2x4  | DRY    | No.2   | SPF |
| 6 - 5                 | 2x4  | DRY    | No.2   | SPF |
| 10 - 7                | 2x4  | DRY    | No.2   | SPF |
| 7 - 6                 | 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 | 4.0 | 1.75 | Edge |
| 2                                                                                | TTWW+m | MT20   | 4.0 | 8.0 | 2.50 | 1.00 |
| 3                                                                                | TTWW+m | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 4                                                                                | TMVW-t | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 5                                                                                | TMVW-t | MT20   | 3.0 | 6.0 |      |      |
| 6                                                                                | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 7                                                                                | BSWW-l | MT20   | 5.0 | 5.0 | Edge | 2.50 |
| 8                                                                                | BMWW-t | MT20   | 3.0 | 8.0 |      |      |
| 9                                                                                | BMWW-t | MT20   | 3.0 | 4.0 |      |      |
| 10                                                                               | 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. |        |        |     |     |      |      |

| DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER |                         |         |                                 |      |            |                  |                     |       |  |
|-----------------------------------------------------------------------------------------------|-------------------------|---------|---------------------------------|------|------------|------------------|---------------------|-------|--|
| BEARINGS                                                                                      |                         |         |                                 |      |            |                  |                     |       |  |
| JT                                                                                            | FACTORED GROSS REACTION |         | MAXIMUM FACTORED GROSS REACTION |      | INPUT DOWN | REQRD BRG IN-SX  |                     |       |  |
|                                                                                               | VERT                    | HORZ    | DOWN                            | HORZ |            |                  | MIN. SEAT SIZE: 1-8 |       |  |
| 10                                                                                            | 929                     | 0       | 929                             | 0    | 0          | HANGER BY OTHERS | 1-10                | 1-10  |  |
| 6                                                                                             | 929                     | 0       | 929                             | 0    | 0          |                  |                     |       |  |
| UNFACTORED REACTIONS                                                                          |                         |         |                                 |      |            |                  |                     |       |  |
| JT                                                                                            | 1ST LCASE               |         | MAX./MIN. LIVE                  |      | PERM. LIVE |                  | WIND DEAD SOIL      |       |  |
|                                                                                               | COMBINED                | SNOW    |                                 |      |            |                  |                     |       |  |
| 10                                                                                            | 652                     | 456 / 0 | 0 / 0                           |      | 0 / 0      | 0 / 0            | 196 / 0             | 0 / 0 |  |
| 6                                                                                             | 652                     | 456 / 0 | 0 / 0                           |      | 0 / 0      | 0 / 0            | 196 / 0             | 0 / 0 |  |

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.94 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 2-9, 4-8, DBS = 20-0-0 . CBF = 57 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

| C H O R D S |                           |         |                           |          | W E B S              |       |                           |          |                      |
|-------------|---------------------------|---------|---------------------------|----------|----------------------|-------|---------------------------|----------|----------------------|
| MEMB.       | MAX. FACTORED FORCE (LBS) |         | FACTORED VERT. LOAD (PLF) |          | MAX. UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) |          | MAX. UNBRACED LENGTH |
|             | FR-TO                     | FROM TO | FR-TO                     | FROM TO  |                      |       | FR-TO                     | FROM TO  |                      |
| 1-2         | -508 / 0                  | -77.3   | -77.3                     | 0.37 (1) | 6.25                 | 9-2   | -241 / 6                  | 0.16 (1) |                      |
| 2-3         | -452 / 0                  | -77.3   | -77.3                     | 0.02 (1) | 6.25                 | 2-8   | 0 / 235                   | 0.05 (1) |                      |
| 3-4         | -575 / 0                  | -77.3   | -77.3                     | 0.37 (1) | 6.25                 | 8-3   | 0 / 76                    | 0.02 (3) |                      |
| 4-5         | -913 / 0                  | -77.3   | -77.3                     | 0.39 (1) | 5.94                 | 8-4   | -453 / 0                  | 0.21 (1) |                      |
| 10-1        | -887 / 0                  | 0.0     | 0.0                       | 0.57 (1) | 7.81                 | 7-4   | -54 / 87                  | 0.03 (3) |                      |
| 6-5         | -886 / 0                  | 0.0     | 0.0                       | 0.10 (1) | 7.81                 | 1-9   | 0 / 561                   | 0.13 (1) |                      |
|             |                           |         |                           |          |                      | 7-5   | 0 / 806                   | 0.18 (1) |                      |
| 10-9        | 0 / 0                     | -17.5   | -17.5                     | 0.16 (3) | 10.00                |       |                           |          |                      |
| 9-8         | 0 / 420                   | -17.5   | -17.5                     | 0.19 (3) | 10.00                |       |                           |          |                      |
| 8-7         | 0 / 786                   | -17.5   | -17.5                     | 0.22 (3) | 10.00                |       |                           |          |                      |
| 7-6         | 0 / 0                     | -17.5   | -17.5                     | 0.17 (3) | 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**

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 (0.65")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")  
ALLOWABLE DEFL.(TL)= L/360 (0.65")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.06")

CSI: TC=0.57 (1-10:1) , BC=0.22 (7-8:3) , WB=0.21 (4-8:1) , 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) SHEAR SECTION (PSI) (PLI) (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.

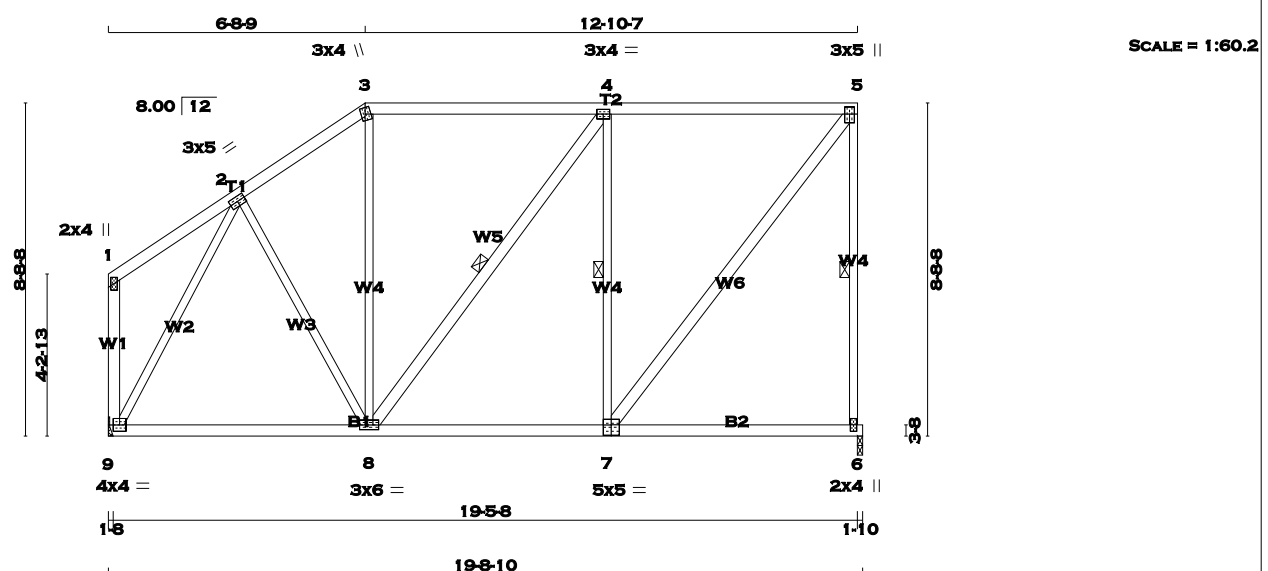
JSI GRIP= 0.88 (9) (INPUT = 0.90 )  
JSI METAL= 0.26 (5) (INPUT = 1.00 )



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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.





TOTAL WEIGHT = 105 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 |
| 6 - 5                 | 2x3  | DRY    | No.2   | SPF |
| 9 - 1                 | 2x4  | DRY    | No.2   | SPF |
| 9 - 7                 | 2x4  | DRY    | No.2   | SPF |
| 7 - 6                 | 2x4  | DRY    | No.2   | SPF |
| ALL WEBS EXCEPT       | 2x3  | DRY    | No.2   | SPF |
| 8 - 4                 | 2x4  | DRY    | No.2   | SPF |
| 7 - 5                 | 2x4  | DRY    | No.2   | SPF |
| DRY: SEASONED LUMBER. |      |        |        |     |

| PLATES (table is in inches)                                                      |        |        |     |     |      |      |
|----------------------------------------------------------------------------------|--------|--------|-----|-----|------|------|
| JT                                                                               | TYPE   | PLATES | W   | LEN | Y    | X    |
| 1                                                                                | TMV+p  | MT20   | 2.0 | 4.0 |      |      |
| 2                                                                                | TMVW-t | MT20   | 3.0 | 5.0 |      |      |
| 3                                                                                | TTW+m  | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 4                                                                                | TMVW-t | MT20   | 3.0 | 4.0 |      |      |
| 5                                                                                | TMVW+p | MT20   | 3.0 | 5.0 | 2.25 | 1.50 |
| 6                                                                                | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 7                                                                                | BSWW-l | MT20   | 5.0 | 5.0 | 3.25 | 2.50 |
| 8                                                                                | BMVW-t | MT20   | 3.0 | 6.0 |      |      |
| 9                                                                                | BMVW-t | MT20   | 4.0 | 4.0 |      |      |
| 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                                                                                             |  | 929                     | 0       | 929                             | 0         | 0         | 1-10             | 1-10      |  |
| 9                                                                                             |  | 929                     | 0       | 929                             | 0         | 0         | HANGER BY OTHERS |           |  |
| MIN. SEAT SIZE: 1-8                                                                           |  |                         |         |                                 |           |           |                  |           |  |
| UNFACTORED REACTIONS                                                                          |  |                         |         |                                 |           |           |                  |           |  |
|                                                                                               |  | 1ST LCASE               |         | MAX./MIN. COMPONENT REACTIONS   |           |           |                  |           |  |
| JT                                                                                            |  | COMBINED                | SNOW    | LIVE                            | PERM.LIVE | WIND      | DEAD             | SOIL      |  |
| 6                                                                                             |  | 652                     | 456 / 0 | 0 / 0                           | 0 / 0     | 0 / 0     | 196 / 0          | 0 / 0     |  |
| 9                                                                                             |  | 652                     | 456 / 0 | 0 / 0                           | 0 / 0     | 0 / 0     | 196 / 0          | 0 / 0     |  |

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-6. DBS = 16-0-0 . CBF = 88 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 4-8, 4-7. DBS = 20-0-0 . CBF = 71 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: (3) |  |                           |  |                                   |       |              |       |                           |          |
| CHORDS                |  |                           |  |                                   | WEBS  |              |       |                           |          |
| MEMB.                 |  | MAX. FACTORED FORCE (LBS) |  | FACTORED VERT. LOAD LC1 MAX (PLF) |       | MEMB.        |       | MAX. FACTORED FORCE (LBS) |          |
|                       |  |                           |  | CSI (LC)                          |       |              |       |                           |          |
| FR-TO                 |  |                           |  | FROM TO                           |       | LENGTH FR-TO |       |                           |          |
| 1-2                   |  | 0 / 16                    |  | -77.3                             | -77.3 | 0.14 (1)     | 10.00 | 2-8                       | 0 / 144  |
| 2-3                   |  | -615 / 0                  |  | -77.3                             | -77.3 | 0.14 (1)     | 6.25  | 8-3                       | 0 / 72   |
| 3-4                   |  | -497 / 0                  |  | -77.3                             | -77.3 | 0.56 (1)     | 6.25  | 8-4                       | -64 / 0  |
| 4-5                   |  | -535 / 0                  |  | -77.3                             | -77.3 | 0.57 (1)     | 6.25  | 7-4                       | -568 / 0 |
| 6-5                   |  | -882 / 0                  |  | 0.0                               | 0.0   | 0.43 (1)     | 5.77  | 7-5                       | 0 / 873  |
| 9-1                   |  | -102 / 0                  |  | 0.0                               | 0.0   | 0.03 (1)     | 7.81  | 9-2                       | -888 / 0 |
| 9-8                   |  | 0 / 427                   |  | -17.5                             | -17.5 | 0.21 (3)     | 10.00 |                           |          |
| 8-7                   |  | 0 / 535                   |  | -17.5                             | -17.5 | 0.22 (3)     | 10.00 |                           |          |
| 7-6                   |  | 0 / 0                     |  | -17.5                             | -17.5 | 0.16 (3)     | 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**

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 (0.65")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.65")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07")

CSI: TC=0.57 (4-5:1) , BC=0.22 (7-8:3) , WB=0.80 (2-9:1) , 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

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

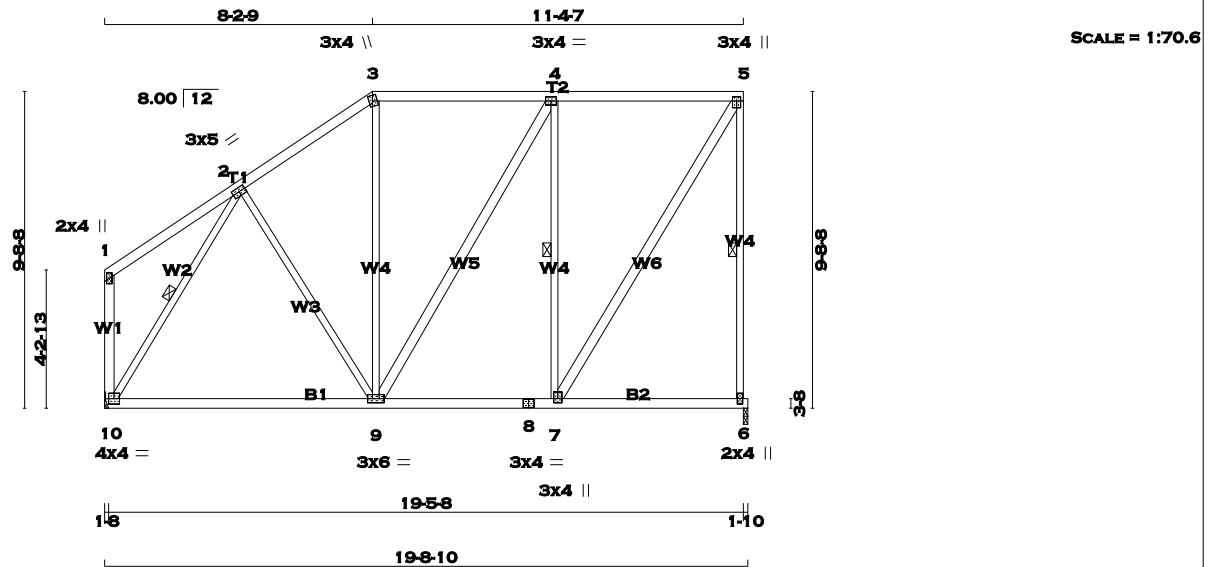
JSI GRIP= 0.89 (7) (INPUT = 0.90 )  
JSI METAL= 0.23 (2) (INPUT = 1.00 )



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TOTAL WEIGHT = 110 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 |
| 6 - 5                 | 2x3  | DRY    | No.2   | SPF |
| 10 - 1                | 2x4  | DRY    | No.2   | SPF |
| 10 - 8                | 2x4  | DRY    | No.2   | SPF |
| 8 - 6                 | 2x4  | DRY    | No.2   | SPF |
| ALL WEBS EXCEPT       | 2x3  | DRY    | No.2   | SPF |
| 9 - 4                 | 2x4  | DRY    | No.2   | SPF |
| 7 - 5                 | 2x4  | DRY    | No.2   | SPF |
| DRY: SEASONED LUMBER. |      |        |        |     |

| PLATES (table is in inches) |         |        |     |     |           |
|-----------------------------|---------|--------|-----|-----|-----------|
| JT                          | TYPE    | PLATES | W   | LEN | Y X       |
| 1                           | TMV+p   | MT20   | 2.0 | 4.0 |           |
| 2                           | TMVW-t  | MT20   | 3.0 | 5.0 |           |
| 3                           | TTW+m   | MT20   | 3.0 | 4.0 | 2.00 1.25 |
| 4                           | TMVW-t  | MT20   | 3.0 | 4.0 |           |
| 5                           | TMVW+p  | MT20   | 3.0 | 4.0 | 1.50 1.50 |
| 6                           | BMV1+p  | MT20   | 2.0 | 4.0 |           |
| 7                           | BMVW+t  | MT20   | 3.0 | 4.0 | 1.50 1.50 |
| 8                           | BS-t    | MT20   | 3.0 | 4.0 |           |
| 9                           | BMVW-t  | MT20   | 3.0 | 6.0 |           |
| 10                          | BMVW1-t | MT20   | 4.0 | 4.0 |           |

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 | IN-SX     | IN-SX            |           |  |
| 6                   |  | 929                     | 0    | 929                             | 0    | 0         | 1-10             | 1-10      |  |
| 10                  |  | 929                     | 0    | 929                             | 0    | 0         | HANGER BY OTHERS |           |  |
| MIN. SEAT SIZE: 1-8 |  |                         |      |                                 |      |           |                  |           |  |

| UNFACTORED REACTIONS |           |           |       |       |           |       |         |
|----------------------|-----------|-----------|-------|-------|-----------|-------|---------|
| JT                   | 1ST LCASE | MAX./MIN. | SNOW  | LIVE  | PERM.LIVE | WIND  | DEAD    |
| 6                    | 652       | 456 / 0   | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 196 / 0 |
| 10                   | 652       | 456 / 0   | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 196 / 0 |

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-6, 2-10. DBS = 16-0-0 . CBF = 88 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 4-7. DBS = 20-0-0 . CBF = 78 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

| C H O R D S |                           |                           |          | W E B S            |       |                           |                    |
|-------------|---------------------------|---------------------------|----------|--------------------|-------|---------------------------|--------------------|
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX  | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRAC LENGTH |
| FR-TO       |                           | FROM TO                   |          |                    | FR-TO |                           |                    |
| 1-2         | 0 / 21                    | -77.3 -77.3               | 0.21 (1) | 10.00              | 2-9   | 0 / 59                    | 0.02 (3)           |
| 2-3         | -601 / 0                  | -77.3 -77.3               | 0.22 (1) | 6.25               | 9-3   | 0 / 70                    | 0.02 (3)           |
| 3-4         | -482 / 0                  | -77.3 -77.3               | 0.43 (1) | 6.25               | 9-4   | 0 / 85                    | 0.01 (1)           |
| 4-5         | -439 / 0                  | -77.3 -77.3               | 0.43 (1) | 6.25               | 7-4   | -620 / 0                  | 0.39 (1)           |
| 6-5         | -885 / 0                  | 0.0 0.0                   | 0.56 (1) | 5.77               | 7-5   | 0 / 838                   | 0.13 (1)           |
| 10-1        | -122 / 0                  | 0.0 0.0                   | 0.04 (1) | 7.81               | 10-2  | -878 / 0                  | 0.35 (1)           |
| 10-9        | 0 / 462                   | -17.5 -17.5               | 0.28 (3) | 10.00              |       |                           |                    |
| 9-8         | 0 / 439                   | -17.5 -17.5               | 0.28 (3) | 10.00              |       |                           |                    |
| 8-7         | 0 / 439                   | -17.5 -17.5               | 0.28 (3) | 10.00              |       |                           |                    |
| 7-6         | 0 / 0                     | -17.5 -17.5               | 0.13 (3) | 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

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 (0.65")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.65")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.14")

CSI: TC=0.56 (5-6:1) , BC=0.28 (7-9:3) , WB=0.39 (4-7:1) , SSI=0.22 (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) | SHEAR    | SECTION   |  |  |
|             | (PSI)     | (PLI)    | (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= 0.89 (7) (INPUT = 0.90 )  
JSI METAL= 0.24 (2) (INPUT = 1.00 )

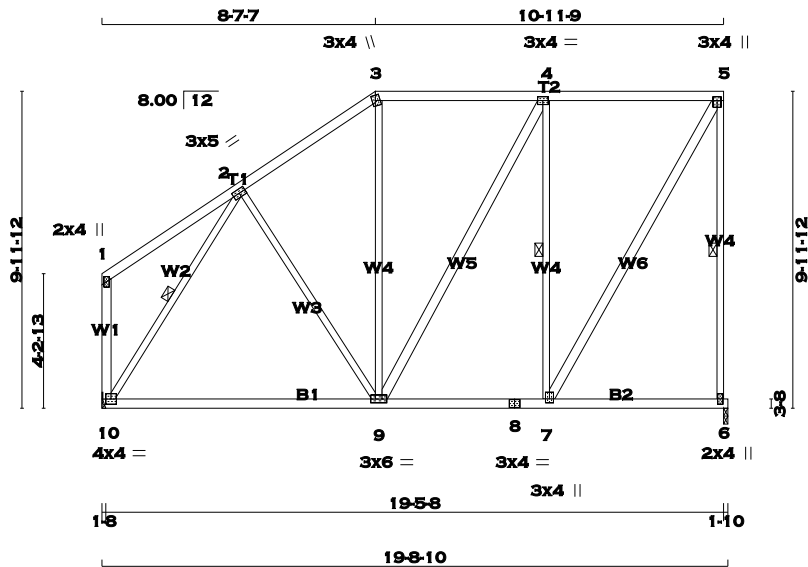


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TOTAL WEIGHT = 111 lb [M]

| LUMBER                |      |        |        |     | N. L. G. A. RULES |  |  |  |  |
|-----------------------|------|--------|--------|-----|-------------------|--|--|--|--|
| CHORDS                | SIZE | LUMBER | DESCR. |     |                   |  |  |  |  |
| 1 - 3                 | 2x4  | DRY    | No.2   | SPF |                   |  |  |  |  |
| 3 - 5                 | 2x4  | DRY    | No.2   | SPF |                   |  |  |  |  |
| 6 - 5                 | 2x3  | DRY    | No.2   | SPF |                   |  |  |  |  |
| 10 - 1                | 2x4  | DRY    | No.2   | SPF |                   |  |  |  |  |
| 10 - 8                | 2x4  | DRY    | No.2   | SPF |                   |  |  |  |  |
| 8 - 6                 | 2x4  | DRY    | No.2   | SPF |                   |  |  |  |  |
| ALL WEBS EXCEPT       | 2x3  | DRY    | No.2   | SPF |                   |  |  |  |  |
| 9 - 4                 | 2x4  | DRY    | No.2   | SPF |                   |  |  |  |  |
| 7 - 5                 | 2x4  | DRY    | No.2   | SPF |                   |  |  |  |  |
| DRY: SEASONED LUMBER. |      |        |        |     |                   |  |  |  |  |

| PLATES (table is in inches) |         |        |     |     |      |      |
|-----------------------------|---------|--------|-----|-----|------|------|
| JT                          | TYPE    | PLATES | W   | LEN | Y    | X    |
| 1                           | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 2                           | TMWW-t  | MT20   | 3.0 | 5.0 |      |      |
| 3                           | TTW+m   | MT20   | 3.0 | 4.0 | 2.00 | 1.25 |
| 4                           | TMWW-t  | MT20   | 3.0 | 4.0 |      |      |
| 5                           | TMVW+p  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 6                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 7                           | BMWW+t  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| 8                           | BS-t    | MT20   | 3.0 | 4.0 |      |      |
| 9                           | BMWWW-t | MT20   | 3.0 | 6.0 |      |      |
| 10                          | BMVW1-t | MT20   | 4.0 | 4.0 |      |      |

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 |                |      |                  |      |        |                  |                     |  |  |
|-----------------------------------------------------------------------------------------------|----------------|------|------------------|------|--------|------------------|---------------------|--|--|
| <u>BEARINGS</u>                                                                               |                |      |                  |      |        |                  |                     |  |  |
|                                                                                               | FACTORED       |      | MAXIMUM FACTORED |      |        | INPUT            | REQRD               |  |  |
|                                                                                               | GROSS REACTION |      | GROSS REACTION   |      |        | BRG              | BRG                 |  |  |
| JT                                                                                            | VERT           | HORZ | DOWN             | HORZ | UPLIFT | IN-SX            | IN-SX               |  |  |
| 6                                                                                             | 929            | 0    | 929              | 0    | 0      | 1-10             | 1-10                |  |  |
| 10                                                                                            | 929            | 0    | 929              | 0    | 0      | HANGER BY OTHERS |                     |  |  |
|                                                                                               |                |      |                  |      |        |                  | MIN. SEAT SIZE: 1-8 |  |  |

| UNFACTORED REACTIONS |           |         |                               |           |       |         |       |
|----------------------|-----------|---------|-------------------------------|-----------|-------|---------|-------|
| JT                   | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |           |       |         |       |
|                      | COMBINED  | SNOW    | LIVE                          | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 6                    | 652       | 456 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 196 / 0 | 0 / 0 |
| 10                   | 652       | 456 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 196 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 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.  
  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-6, 2-10. DBS = 16-0-0 . CBF = 89 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 4-7. DBS = 20-0-0 . CBF = 79 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

| C H O R D S |                           |                           |          |               | W E B S |                           |               |  |  |
|-------------|---------------------------|---------------------------|----------|---------------|---------|---------------------------|---------------|--|--|
| MEMB.       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX  | UNBRAC LENGTH | MEMB.   | MAX. FACTORED FORCE (LBS) | MAX. CSI (LC) |  |  |
| FR-TO       |                           | FROM TO                   |          |               | FR-TO   |                           |               |  |  |
| 1-2         | 0 / 22                    | -77.3 -77.3               | 0.24 (1) | 10.00         | 2-9     | 0 / 54                    | 0.02 (3)      |  |  |
| 2-3         | -593 / 0                  | -77.3 -77.3               | 0.25 (1) | 6.25          | 9-3     | 0 / 69                    | 0.02 (3)      |  |  |
| 3-4         | -474 / 0                  | -77.3 -77.3               | 0.40 (1) | 6.25          | 9-4     | 0 / 124                   | 0.02 (1)      |  |  |
| 4-5         | -415 / 0                  | -77.3 -77.3               | 0.40 (1) | 6.25          | 7-4     | -635 / 0                  | 0.43 (1)      |  |  |
| 6-5         | -886 / 0                  | 0.0 0.0                   | 0.60 (1) | 5.77          | 7-5     | 0 / 831                   | 0.13 (1)      |  |  |
| 10-1        | -128 / 0                  | 0.0 0.0                   | 0.04 (1) | 7.81          | 10-2    | -875 / 0                  | 0.37 (1)      |  |  |
| 10-9        | 0 / 470                   | -17.5 -17.5               | 0.31 (3) | 10.00         |         |                           |               |  |  |
| 9-8         | 0 / 415                   | -17.5 -17.5               | 0.31 (3) | 10.00         |         |                           |               |  |  |
| 8-7         | 0 / 415                   | -17.5 -17.5               | 0.31 (3) | 10.00         |         |                           |               |  |  |
| 7-6         | 0 / 0                     | -17.5 -17.5               | 0.12 (3) | 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

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 (0.65")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.65")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.17")

CSI: TC=0.60 (5-6:1) , BC=0.31 (9-10:3) , WB=0.43 (4-7:1) , SSI=0.21 (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) SHEAR SECTION  
(PSI) (PLI) (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.

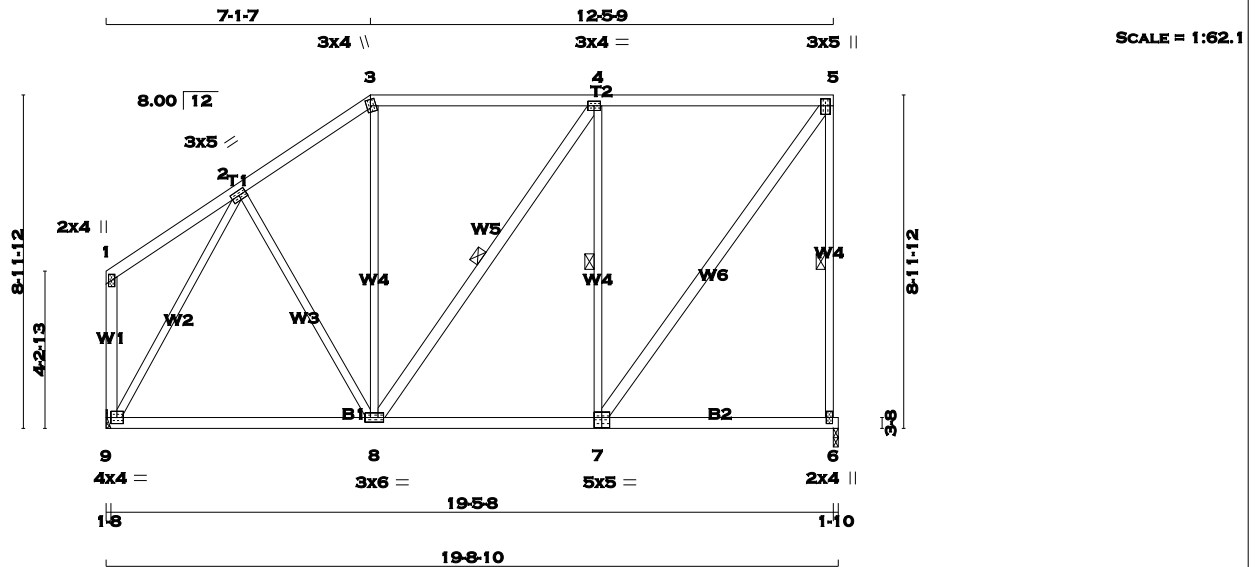
JSI GRIP= 0.88 (5) (INPUT = 0.90 )  
JSI METAL= 0.24 (2) (INPUT = 1.00 )



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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.





| LUMBER                |      |        |        |     |
|-----------------------|------|--------|--------|-----|
| N. L. G. A. RULES     |      |        |        |     |
| CHORDS                | SIZE | LUMBER | DESCR. |     |
| 1 - 3                 | 2x4  | DRY    | No.2   | SPF |
| 3 - 5                 | 2x4  | DRY    | No.2   | SPF |
| 6 - 5                 | 2x3  | DRY    | No.2   | SPF |
| 9 - 1                 | 2x4  | DRY    | No.2   | SPF |
| 9 - 7                 | 2x4  | DRY    | No.2   | SPF |
| 7 - 6                 | 2x4  | DRY    | No.2   | SPF |
| ALL WEBS              | 2x3  | DRY    | No.2   | SPF |
| EXCEPT                |      |        |        |     |
| 8 - 4                 | 2x4  | DRY    | No.2   | SPF |
| 7 - 5                 | 2x4  | DRY    | No.2   | SPF |
| DRY: SEASONED LUMBER. |      |        |        |     |

| PLATES (table is in inches)                                                      |        |        |     |     |           |
|----------------------------------------------------------------------------------|--------|--------|-----|-----|-----------|
| JT                                                                               | TYPE   | PLATES | W   | LEN | Y X       |
| 1                                                                                | TMV+p  | MT20   | 2.0 | 4.0 |           |
| 2                                                                                | TMVW-t | MT20   | 3.0 | 5.0 |           |
| 3                                                                                | TTW+m  | MT20   | 3.0 | 4.0 | 2.00 1.25 |
| 4                                                                                | TMVW-t | MT20   | 3.0 | 4.0 |           |
| 5                                                                                | TMVW+p | MT20   | 3.0 | 5.0 | 2.25 1.50 |
| 6                                                                                | BMV1+p | MT20   | 2.0 | 4.0 |           |
| 7                                                                                | BSWW-l | MT20   | 5.0 | 5.0 | 3.25 2.50 |
| 8                                                                                | BMVW-t | MT20   | 3.0 | 6.0 |           |
| 9                                                                                | BMVW-t | MT20   | 4.0 | 4.0 |           |
| 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                                                                                      |                         |      |                                 |      |        |                  |                     |
| JT                                                                                            | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      |        | INPUT BRG        | REQRD BRG           |
|                                                                                               | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT | IN-SX            | IN-SX               |
| 6                                                                                             | 929                     | 0    | 929                             | 0    | 0      | 1-10             | 1-10                |
| 9                                                                                             | 929                     | 0    | 929                             | 0    | 0      | HANGER BY OTHERS |                     |
|                                                                                               |                         |      |                                 |      |        |                  | MIN. SEAT SIZE: 1-8 |

| UNFACTORED REACTIONS |           |         |                |       |            |         |       |
|----------------------|-----------|---------|----------------|-------|------------|---------|-------|
| JT                   | 1ST LCASE |         | MAX./MIN. LIVE |       | PERM. LIVE |         |       |
|                      | COMBINED  | SNOW    | DEAD           | WIND  | SOIL       |         |       |
| 6                    | 652       | 456 / 0 | 0 / 0          | 0 / 0 | 0 / 0      | 196 / 0 | 0 / 0 |
| 9                    | 652       | 456 / 0 | 0 / 0          | 0 / 0 | 0 / 0      | 196 / 0 | 0 / 0 |

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-6. DBS = 16-0-0 . CBF = 88 LBS.  
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 4-8, 4-7. DBS = 20-0-0 . CBF = 73 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.

| LOADING               |               |            |          |             |       |               |            |          |             |
|-----------------------|---------------|------------|----------|-------------|-------|---------------|------------|----------|-------------|
| TOTAL LOAD CASES: (3) |               |            |          |             |       |               |            |          |             |
| CHORDS                |               |            |          |             | WEBS  |               |            |          |             |
| MEMB.                 | MAX. FACTORED |            | FACTORED |             | MEMB. | MAX. FACTORED |            | FACTORED |             |
|                       | FORCE (LBS)   | VERT. LOAD | LC1 MAX  | MAX. UNBRAC |       | FORCE (LBS)   | VERT. LOAD | LC1 MAX  | MAX. UNBRAC |
| FR-TO                 |               | FROM TO    | CSI (LC) | LENGTH      | FR-TO |               | FROM TO    | CSI (LC) | LENGTH      |
| 1-2                   | 0 / 18        | -77.3      | -77.3    | 0.16 (1)    | 10.00 | 2-8           | 0 / 113    | 0.03 (3) |             |
| 2-3                   | -614 / 0      | -77.3      | -77.3    | 0.16 (1)    | 6.25  | 8-3           | 0 / 72     | 0.02 (3) |             |
| 3-4                   | -495 / 0      | -77.3      | -77.3    | 0.52 (1)    | 6.25  | 8-4           | -22 / 12   | 0.01 (1) |             |
| 4-5                   | -508 / 0      | -77.3      | -77.3    | 0.53 (1)    | 6.25  | 7-4           | -582 / 0   | 0.30 (1) |             |
| 6-5                   | -883 / 0      | 0.0        | 0.0      | 0.46 (1)    | 5.77  | 7-5           | 0 / 861    | 0.14 (1) |             |
| 9-1                   | -107 / 0      | 0.0        | 0.0      | 0.03 (1)    | 7.81  | 9-2           | -885 / 0   | 0.87 (1) |             |
| 9-8                   | 0 / 438       | -17.5      | -17.5    | 0.22 (3)    | 10.00 |               |            |          |             |
| 8-7                   | 0 / 508       | -17.5      | -17.5    | 0.23 (3)    | 10.00 |               |            |          |             |
| 7-6                   | 0 / 0         | -17.5      | -17.5    | 0.15 (3)    | 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**

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 (0.65")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.65")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.09")

CSI: TC=0.53 (4-5:1) , BC=0.23 (7-8:3) , WB=0.87 (2-9:1) , 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

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

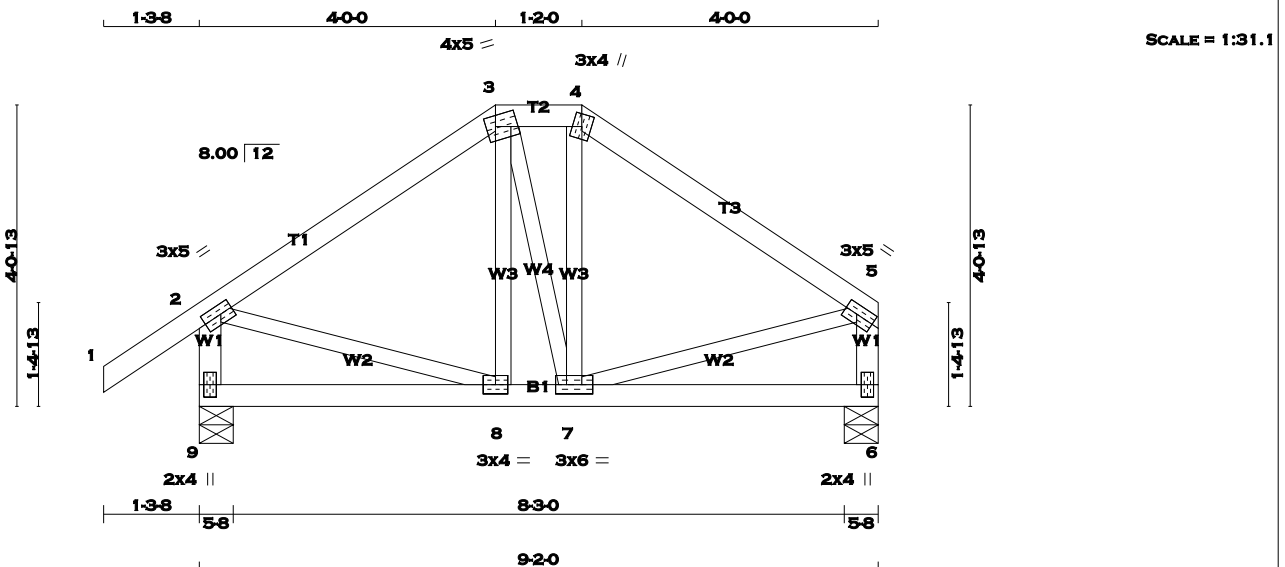
JSI GRIP= 0.88 (2) (INPUT = 0.90 )  
JSI METAL= 0.24 (2) (INPUT = 1.00 )



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TOTAL WEIGHT = 2 X 42 = 84 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 - 5             | 2x4    | DRY  | No.2   | SPF    |
| 9 - 2             | 2x4    | DRY  | No.2   | SPF    |
| 6 - 5             | 2x4    | DRY  | No.2   | SPF    |
| 9 - 6             | 2x4    | DRY  | No.2   | SPF    |

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| 2  | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 3  | TTWW-m  | MT20   | 4.0 | 5.0 | 1.75 | 1.50 |
| 4  | TTW+m   | MT20   | 3.0 | 4.0 |      |      |
| 5  | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 6  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 7  | BMVWW-t | MT20   | 3.0 | 6.0 |      |      |
| 8  | BMVWW-t | MT20   | 3.0 | 4.0 |      |      |
| 9  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

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      |
| 9  | 541                     | 0                               | 541       | 0         |
| 6  | 435                     | 0                               | 435       | 0         |

##### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX/MIN. COMPONENT REACTIONS | PERM. LIVE | WIND  | DEAD    | SOIL  |
|----|-----------|------------------------------|------------|-------|---------|-------|
| 9  | 377       | 277 / 0                      | 0 / 0      | 0 / 0 | 100 / 0 | 0 / 0 |
| 6  | 305       | 213 / 0                      | 0 / 0      | 0 / 0 | 92 / 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: (3)

| CHORDS |                           |                           |               | WEBS  |                           |               |          |
|--------|---------------------------|---------------------------|---------------|-------|---------------------------|---------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. LC1 (LC) |          |
| FR-TO  |                           | FROM TO                   |               | FR-TO |                           |               |          |
| 1-2    | 0 / 29                    | -77.3 -77.3               | 0.10 (1)      | 10.00 | 8-3                       | -20 / 33      | 0.01 (3) |
| 2-3    | -322 / 0                  | -77.3 -77.3               | 0.16 (1)      | 6.25  | 3-7                       | 0 / 2         | 0.00 (3) |
| 3-4    | -267 / 0                  | -77.3 -77.3               | 0.01 (1)      | 6.25  | 7-4                       | -21 / 35      | 0.01 (3) |
| 4-5    | -322 / 0                  | -77.3 -77.3               | 0.16 (1)      | 6.25  | 2-8                       | 0 / 277       | 0.06 (1) |
| 9-2    | -511 / 0                  | 0.0 0.0                   | 0.05 (1)      | 7.81  | 7-5                       | 0 / 277       | 0.06 (1) |
| 6-5    | -404 / 0                  | 0.0 0.0                   | 0.04 (1)      | 7.81  |                           |               |          |
| 9-8    | 0 / 0                     | -17.5 -17.5               | 0.06 (3)      | 10.00 |                           |               |          |
| 8-7    | 0 / 267                   | -17.5 -17.5               | 0.08 (3)      | 10.00 |                           |               |          |
| 7-6    | 0 / 0                     | -17.5 -17.5               | 0.06 (3)      | 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

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 (0.31")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.31")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.16 (2-3:1), BC=0.08 (7-8:3), WB=0.06 (2-8:1), SSI=0.10 (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) SHEAR SECTION  
(PSI) (PLI) (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.

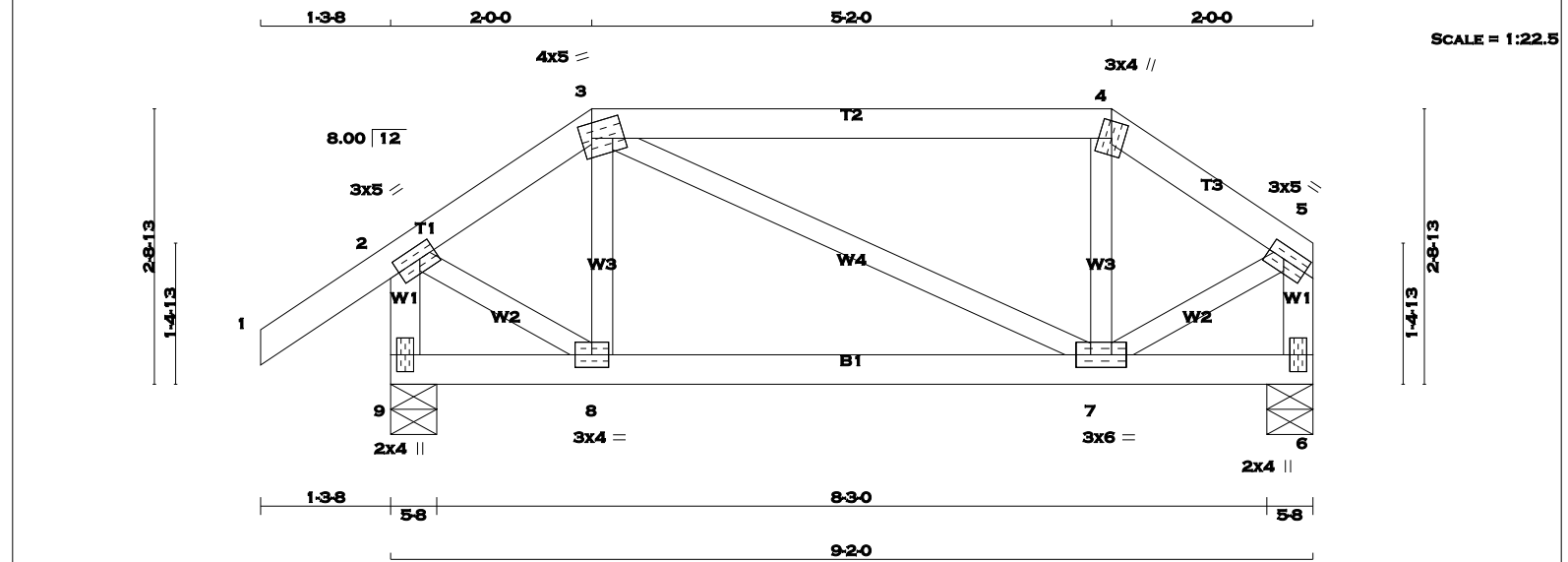
JSI GRIP= 0.51 (7) (INPUT = 0.90)  
JSI METAL= 0.14 (2) (INPUT = 1.00)



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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 - 5

2x4

DRY

No.2

SPF

9 - 2

2x4

DRY

No.2

SPF

6 - 5

2x4

DRY

No.2

SPF

9 - 6

2x4

DRY

No.2

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

DRY: SEASONED LUMBER.

| DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER |     |                |      |                  |      |
|-----------------------------------------------------------------------------------------------|-----|----------------|------|------------------|------|
| BEARINGS                                                                                      |     |                |      |                  |      |
|                                                                                               |     | FACTORED       |      | MAXIMUM FACTORED |      |
|                                                                                               |     | GROSS REACTION |      | GROSS REACTION   |      |
| JT                                                                                            |     | VERT           | HORZ | DOWN             | HORZ |
| 9                                                                                             | 541 | 0              | 541  | 0                | 0    |
| 6                                                                                             | 435 | 0              | 435  | 0                | 0    |
|                                                                                               |     | INPUT          |      | REQRD            |      |
|                                                                                               |     | BRG            |      | BRG              |      |
|                                                                                               |     | IN-SX          |      | IN-SX            |      |
| 9                                                                                             | 5-8 | 5-8            |      | 5-8              |      |
| 6                                                                                             | 5-8 | 5-8            |      | 5-8              |      |

| UNFACTORED REACTIONS |           |          |           |           |       |         |       |
|----------------------|-----------|----------|-----------|-----------|-------|---------|-------|
| JT                   | 1ST LCASE | MAX/MIN. | COMPONENT | REACTIONS |       |         |       |
| JT                   | COMBINED  | SNOW     | LIVE      | PERM.LIVE | WIND  | DEAD    | SOIL  |
| 9                    | 377       | 277 / 0  | 0 / 0     | 0 / 0     | 0 / 0 | 100 / 0 | 0 / 0 |
| 6                    | 305       | 213 / 0  | 0 / 0     | 0 / 0     | 0 / 0 | 92 / 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: (3)

| CHORDS |          |            |       | WEBS  |     |          |     |
|--------|----------|------------|-------|-------|-----|----------|-----|
| MEMB.  |          | FACTORED   |       | MEMB. |     | FACTORED |     |
|        |          | FORCE      |       |       |     | FORCE    |     |
|        |          | (LBS)      |       |       |     | (LBS)    |     |
|        |          | VERT. LOAD |       |       |     | MAX      |     |
|        |          | LC1        |       |       |     | CS       |     |
|        |          | LC         |       |       |     | LC       |     |
|        |          | MAX        |       |       |     | UNBRAC   |     |
|        |          | LENGTH     |       |       |     | FR-TO    |     |
|        |          | FR-TO      |       |       |     |          |     |
| 1-2    | 0 / 29   | -77.3      | -77.3 | 0.10  | (1) | 10.00    | 8-3 |
| 2-3    | -357 / 0 | -77.3      | -77.3 | 0.05  | (1) | 6.25     | 3-7 |
| 3-4    | -293 / 0 | -77.3      | -77.3 | 0.36  | (1) | 6.25     | 7-4 |
| 4-5    | -357 / 0 | -77.3      | -77.3 | 0.05  | (1) | 6.25     | 2-8 |
| 9-2    | -535 / 0 | 0.0        | 0.0   | 0.06  | (1) | 7.81     | 7-5 |
| 6-5    | -429 / 0 | 0.0        | 0.0   | 0.04  | (1) | 7.81     |     |
| 9-8    | 0 / 0    | -17.5      | -17.5 | 0.07  | (3) | 10.00    |     |
| 8-7    | 0 / 293  | -17.5      | -17.5 | 0.09  | (3) | 10.00    |     |
| 7-6    | 0 / 0    | -17.5      | -17.5 | 0.07  | (3) | 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

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 (0.31")

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

ALLOWABLE DEFL.(TL)= L/360 (0.31")

CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.36 (3-4:1), BC=0.09 (7-8:3), WB=0.07 (2-8:1), SSI=0.16 (3-4:1)

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) SHEAR SECTION

(PSI) (PLI) (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= 0.60 (7) (INPUT = 0.90 )

JSI METAL= 0.14 (2) (INPUT = 1.00 )

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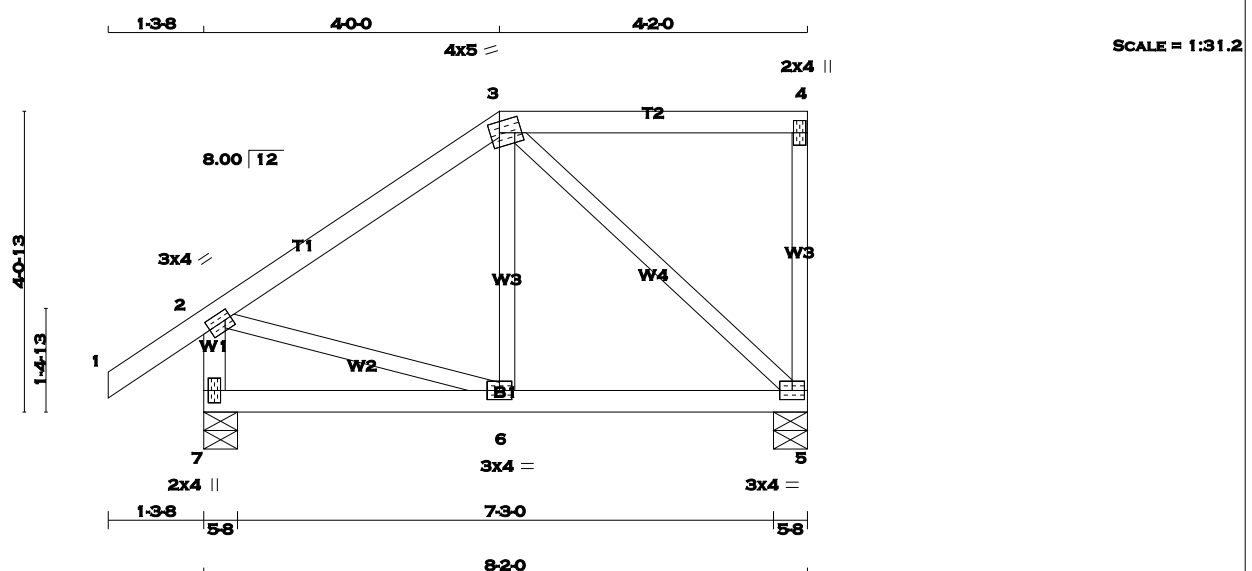
TOWN OF MILTON

MAR 29, 2017

17-5010

BUILDING DIVISION

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TOTAL WEIGHT = 36 lb [M]

| LUMBER                       |        |      |        | DESCR. |
|------------------------------|--------|------|--------|--------|
| N. L. G. A. RULES            | CHORDS | SIZE | LUMBER |        |
| 1 - 3                        | 2x4    | DRY  | No.2   | SPF    |
| 3 - 4                        | 2x4    | DRY  | No.2   | SPF    |
| 5 - 4                        | 2x3    | DRY  | No.2   | SPF    |
| 7 - 2                        | 2x4    | DRY  | No.2   | SPF    |
| 7 - 5                        | 2x4    | DRY  | No.2   | SPF    |
| ALL WEBS 2x3 DRY No.2 EXCEPT |        |      |        | SPF    |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| 2  | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.00 |
| 3  | TTWW-m  | MT20   | 4.0 | 5.0 | 1.75 | 1.50 |
| 4  | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 5  | BMVW1-t | MT20   | 3.0 | 4.0 |      |      |
| 6  | BMVW1-t | MT20   | 3.0 | 4.0 |      |      |
| 7  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

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**

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |
|----|-------------------------|------|---------------------------------|------|-----------|-------|-----------|--|
|    | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     |  |
| 5  | 387                     | 0    | 387                             | 0    | 0         | 5-8   | 5-8       |  |
| 7  | 493                     | 0    | 493                             | 0    | 0         | 5-8   | 5-8       |  |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED |    | MAX/MIN. SNOW |    | LIVE  |    | PERM. LIVE |    | WIND  |    | DEAD   |    | SOIL  |    |
|----|--------------------|----|---------------|----|-------|----|------------|----|-------|----|--------|----|-------|----|
|    | DOWN               | UP | DOWN          | UP | DOWN  | UP | DOWN       | UP | DOWN  | UP | DOWN   | UP | DOWN  | UP |
| 5  | 272                |    | 190 / 0       |    | 0 / 0 |    | 0 / 0      |    | 0 / 0 |    | 82 / 0 |    | 0 / 0 |    |
| 7  | 344                |    | 254 / 0       |    | 0 / 0 |    | 0 / 0      |    | 0 / 0 |    | 90 / 0 |    | 0 / 0 |    |

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

**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: (3)

| CHORDS |                           |                           |              | WEBS               |       |                           |           |
|--------|---------------------------|---------------------------|--------------|--------------------|-------|---------------------------|-----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. (LC) |
|        |                           |                           |              |                    |       |                           |           |
| FR-TO  |                           | FROM TO                   |              |                    | FR-TO |                           |           |
| 1-2    | 0 / 29                    | -77.3 -77.3               | 0.10 (1)     | 10.00              | 6-3   | 0 / 80                    | 0.03 (3)  |
| 2-3    | -263 / 0                  | -77.3 -77.3               | 0.21 (1)     | 6.25               | 3-5   | -296 / 0                  | 0.15 (1)  |
| 3-4    | 0 / 0                     | -77.3 -77.3               | 0.23 (1)     | 10.00              | 2-6   | 0 / 226                   | 0.05 (1)  |
| 5-4    | -161 / 0                  | 0.0 0.0                   | 0.06 (1)     | 7.81               |       |                           |           |
| 7-2    | -465 / 0                  | 0.0 0.0                   | 0.05 (1)     | 7.81               |       |                           |           |
| 7-6    | 0 / 0                     | -17.5 -17.5               | 0.08 (3)     | 10.00              |       |                           |           |
| 6-5    | 0 / 220                   | -17.5 -17.5               | 0.10 (3)     | 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**

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 (0.27")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.27")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.23 (3-4:1), BC=0.10 (5-6:3), WB=0.15 (3-5:1), SSI=0.13 (3-4:1)

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) SHEAR SECTION (PSI) (PLI) (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.

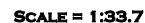
JSI GRIP= 0.74 (2) (INPUT = 0.90 )  
JSI METAL= 0.15 (2) (INPUT = 1.00 )



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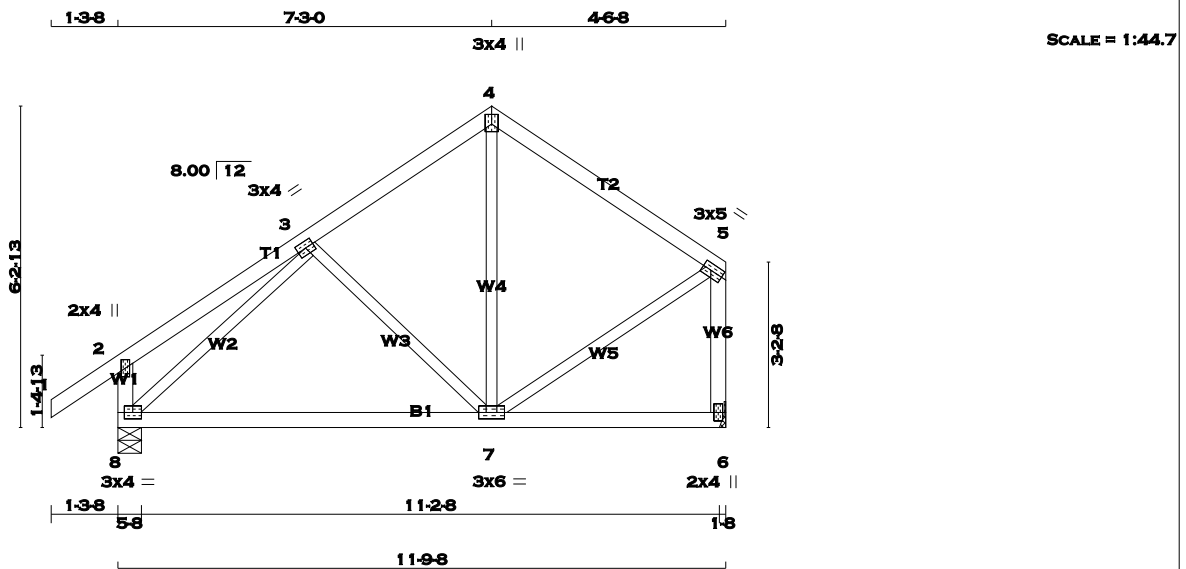




[M][F]

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TOTAL WEIGHT = 52 lb

| LUMBER                       |        |      |        | DESCR. |
|------------------------------|--------|------|--------|--------|
| N. L. G. A. RULES            | CHORDS | SIZE | LUMBER |        |
| 1 - 4                        | 2x4    | DRY  | No.2   | SPF    |
| 4 - 5                        | 2x4    | DRY  | No.2   | SPF    |
| 8 - 2                        | 2x4    | DRY  | No.2   | SPF    |
| 6 - 5                        | 2x4    | DRY  | No.2   | SPF    |
| 8 - 6                        | 2x4    | DRY  | No.2   | SPF    |
| ALL WEBS 2x3 DRY No.2 EXCEPT |        |      |        | SPF    |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| 2  | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| 3  | TMWW-t  | MT20   | 3.0 | 4.0 |      |      |
| 4  | TTW+p   | MT20   | 3.0 | 4.0 | 2.25 | 1.50 |
| 5  | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 6  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| 7  | BMWWW-t | MT20   | 3.0 | 6.0 |      |      |
| 8  | BMVW1-t | MT20   | 3.0 | 4.0 |      |      |

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 |       | REQRD |       |
|----------|--|-------------------------|------|---------------------------------|------|-------|-------|-------|-------|
| JT       |  | VERT                    | HORZ | DOWN                            | HORZ | BRG   | IN-SX | BRG   | IN-SX |
| 6        |  | 559                     | 0    | 559                             | 0    | 0     |       |       |       |
| 8        |  | 665                     | 0    | 665                             | 0    | 0     | 5-8   | 5-8   |       |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE | MAX./MIN. | COMPONENT REACTIONS |       |       |         |       |       |
|----|-----------|-----------|---------------------|-------|-------|---------|-------|-------|
| 6  | 392       | 275 / 0   | 0 / 0               | 0 / 0 | 0 / 0 | 118 / 0 | 0 / 0 | 0 / 0 |
| 8  | 465       | 338 / 0   | 0 / 0               | 0 / 0 | 0 / 0 | 126 / 0 | 0 / 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 = 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: (3)

| CHORDS |                           |                           |                | WEBS  |                           |           |          |
|--------|---------------------------|---------------------------|----------------|-------|---------------------------|-----------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX. (LC)  | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. (LC) |          |
| FR-TO  |                           | FROM                      | TO             | FR-TO |                           | FROM      | TO       |
| 1-2    | 0 / 29                    | -77.3                     | -77.3 0.10 (1) | 10.00 | 3-7                       | -189 / 0  | 0.08 (1) |
| 2-3    | 0 / 18                    | -77.3                     | -77.3 0.16 (1) | 10.00 | 7-4                       | 0 / 95    | 0.03 (3) |
| 3-4    | -352 / 0                  | -77.3                     | -77.3 0.13 (1) | 6.25  | 8-3                       | -576 / 0  | 0.23 (1) |
| 4-5    | -334 / 0                  | -77.3                     | -77.3 0.21 (1) | 6.25  | 7-5                       | 0 / 329   | 0.07 (1) |
| 8-2    | -213 / 0                  | 0.0                       | 0.0 0.02 (1)   | 7.81  |                           |           |          |
| 6-5    | -538 / 0                  | 0.0                       | 0.0 0.10 (1)   | 7.81  |                           |           |          |
| 8-7    | 0 / 415                   | -17.5                     | -17.5 0.23 (3) | 10.00 |                           |           |          |
| 7-6    | 0 / 0                     | -17.5                     | -17.5 0.20 (3) | 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 (0.39")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.39")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07")

CSI: TC=0.21 (4-5:1) , BC=0.23 (7-8:3) , WB=0.23 (3-8:1) , SSI=0.11 (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) SHEAR SECTION  
(PSI) (PLI) (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.

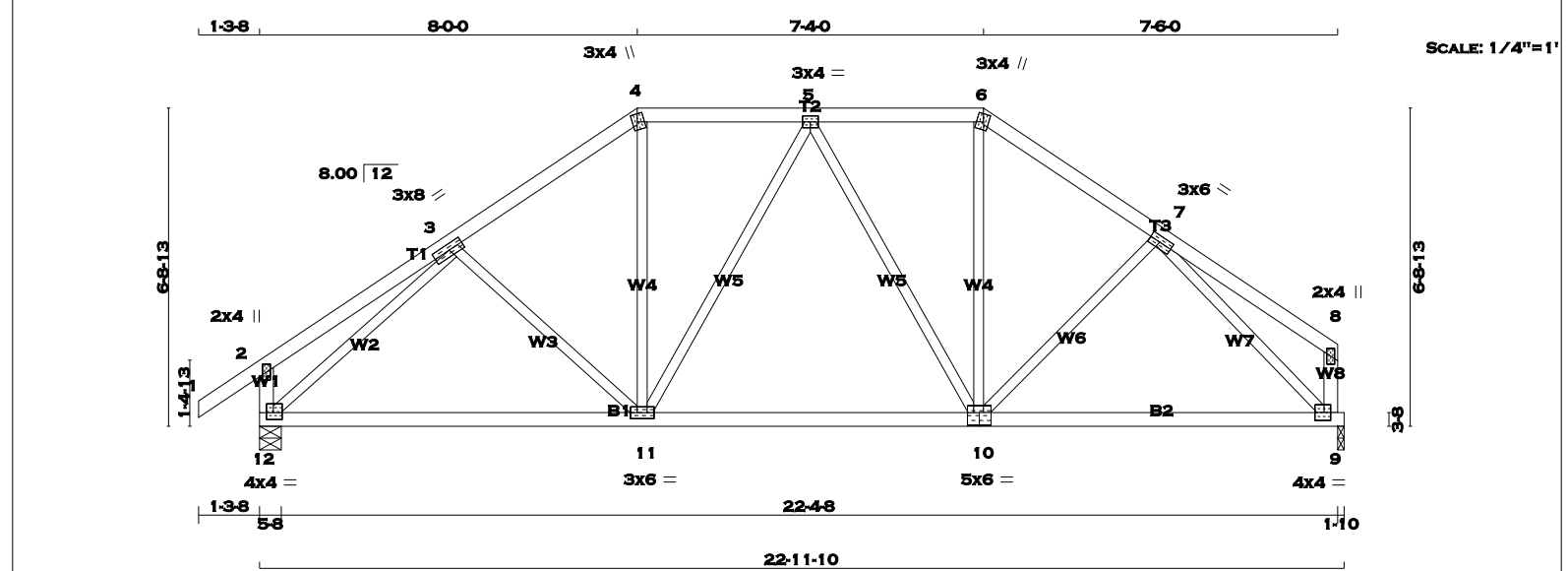
JSI GRIP= 0.79 (3) (INPUT = 0.90 )  
JSI METAL= 0.20 (3) (INPUT = 1.00 )



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LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

1 - 4

2x4

DRY

No.2

SPF

4 - 6

2x4

DRY

No.2

SPF

6 - 8

2x4

DRY

No.2

SPF

12 - 2

2x4

DRY

No.2

SPF

9 - 8

2x4

DRY

No.2

SPF

12 - 10

2x4

DRY

No.2

SPF

10 - 9

2x4

DRY

No.2

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

DRY: SEASONED LUMBER.

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

BEARINGS

FACTORED

MAXIMUM FACTORED

INPUT

REQRD

GROSS REACTION

GROSS REACTION

BRG

BRG

JT

VERT

HORZ

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

12

1189

0

1189

0

0

5-8

5-8

9

1083

0

1083

0

0

1-10

1-10

UNFACTORED REACTIONS

1ST LCASE

MAX/MIN. COMPONENT REACTIONS

JT

COMBINED

SNOW

LIVE

PERM.LIVE

WIND

DEAD

SOIL

12

832

596 / 0

0 / 0

0 / 0

0 / 0

237 / 0

0 / 0

9

760

532 / 0

0 / 0

0 / 0

0 / 0

228 / 0

0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 12, 9

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.88 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: (3)

CHORDS

MAX. FACTORED

FACTORED

VERT. LOAD LC1

MAX

MAX.

MEMB.

MAX.

FACTORED

FORCE

FORCE

FORCE

FORCE

FORCE

FORCE

FORCE

FORCE

(LBS)

(LBS)

(LBS)

(LBS)

(LBS)

(LBS)

(LBS)

(LBS)

FR-TO

FROM

TO

LENGTH

FR-TO

FROM

TO

LENGTH

1-2

0 / 29

-77.3

-77.3

0.10 (1)

10.00

3-11

-103 / 25

0.05 (1)

2-3

0 / 19

-77.3

-77.3

0.19 (1)

10.00

11-4

0 / 362

0.08 (1)

3-4

-1089 / 0

-77.3

-77.3

0.16 (1)

5.88

11-5

-165 / 0

0.18 (1)

4-5

-894 / 0

-77.3

-77.3

0.13 (1)

6.25

5-10

-224 / 0

0.24 (1)

5-6

-866 / 0

-77.3

-77.3

0.13 (1)

6.25

10-6

0 / 351

0.08 (1)

6-7

-1054 / 0

-77.3

-77.3

0.14 (1)

5.98

10-7

-23 / 43

0.01 (3)

7-8

0 / 18

-77.3

-77.3

0.17 (1)

10.00

12-3

-1323 / 0

0.65 (1)

12-2

-226 / 0

0.0

0.0

0.02 (1)

7.81

7-9

-1267 / 0

0.60 (1)

9-8

-113 / 0

0.0

0.0

0.01 (1)

7.81

12-11

0 / 965

-17.5

-17.5

0.31 (3)

10.00

11-10

0 / 975

-17.5

-17.5

0.32 (3)

10.00

10-9

0 / 877

-17.5

-17.5

0.27 (3)

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

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 (0.76")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")

ALLOWABLE DEFL.(TL)= L/360 (0.76")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.14")

CSI: TC=0.19 (2-3:1), BC=0.32 (10-11:3), WB=0.65 (3-12:1), SSI=0.14 (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) SHEAR SECTION

(PSI) (PLI) (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= 0.89 (10) (INPUT = 0.90 )

JSI METAL= 0.36 (12) (INPUT = 1.00 )

| LUMBER                | N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
|-----------------------|-------------------|--------|------|--------|--------|
| 1 - 4                 | 2x4               | DRY    | No.2 | SPF    |        |
| 4 - 6                 | 2x4               | DRY    | No.2 | SPF    |        |
| 6 - 8                 | 2x4               | DRY    | No.2 | SPF    |        |
| 12 - 2                | 2x4               | DRY    | No.2 | SPF    |        |
| 9 - 8                 | 2x4               | DRY    | No.2 | SPF    |        |
| 12 - 10               | 2x4               | DRY    | No.2 | SPF    |        |
| 10 - 9                | 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 TMV+p                     | MT20 | 2.0  | 4.0    |      |      |   |   |
| 3 TMWW-t                    | MT20 | 3.0  | 8.0    | 1.50 | 3.75 |   |   |
| 4 TTW+m                     | MT20 | 3.0  | 4.0    | 2.00 | 1.25 |   |   |
| 5 TMWW-t                    | MT20 | 3.0  | 4.0    |      |      |   |   |
| 6 TTW+m                     | MT20 | 3.0  | 4.0    | 2.00 | 1.25 |   |   |
| 7 TMWW-t                    | MT20 | 3.0  | 6.0    | 1.50 | 2.75 |   |   |
| 8 TMV+p                     | MT20 | 2.0  | 4.0    |      |      |   |   |
| 9 BMVW1-t                   | MT20 | 4.0  | 4.0    | 2.00 | 1.75 |   |   |
| 10 BSWWW-I                  | MT20 | 5.0  | 6.0    | 3.25 | 3.00 |   |   |
| 11 BMWWW-t                  | MT20 | 3.0  | 6.0    |      |      |   |   |
| 12 BMVW1-t                  | MT20 | 4.0  | 4.0    | 1.75 | 1.75 |   |   |

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

RECEIVED

TOWN OF MILTON

MAR 29, 2017

17-5010

BUILDING DIVISION

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

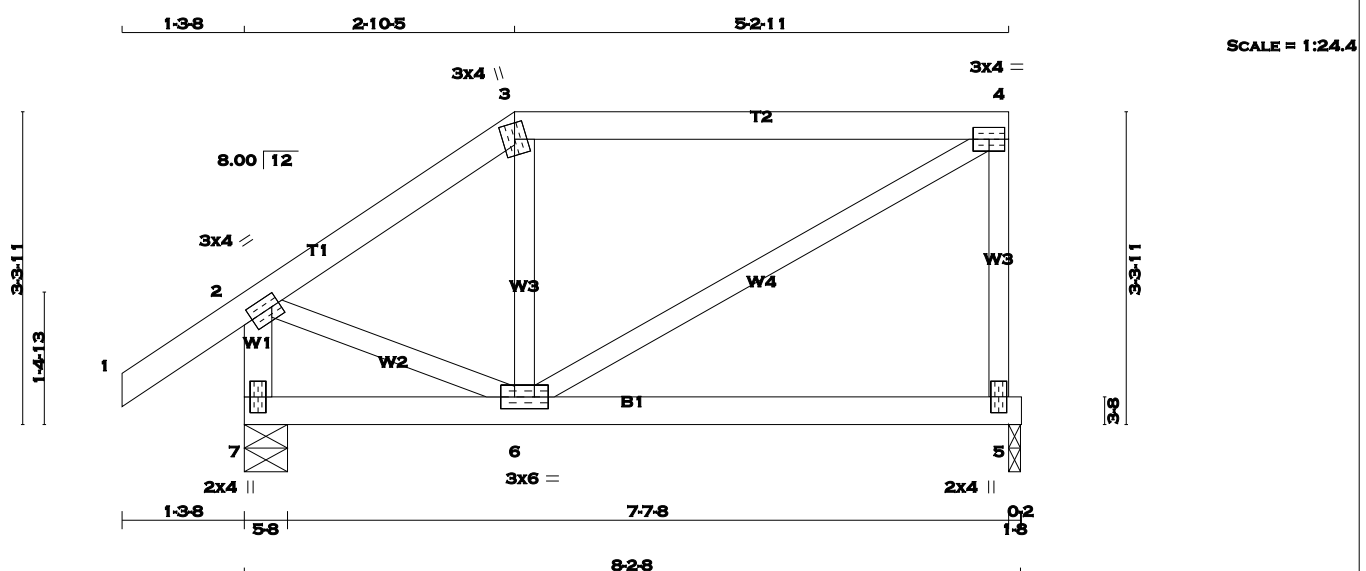
P. M. TREVISAN

100136551

March 13th, 2017

PROVINCE OF ONTARIO

KOTT



|                                                                                    |         |        |      |      |      |      |  |  |  |     |
|------------------------------------------------------------------------------------|---------|--------|------|------|------|------|--|--|--|-----|
| TOTAL WEIGHT = 2 X 33 = 67 lb                                                      |         |        |      |      |      |      |  |  |  | [M] |
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR.                    |         |        |      |      |      |      |  |  |  |     |
| 1 - 3                                                                              | 2x4     | DRY    | No.2 | SPF  |      |      |  |  |  |     |
| 3 - 4                                                                              | 2x4     | DRY    | No.2 | SPF  |      |      |  |  |  |     |
| 5 - 4                                                                              | 2x3     | DRY    | No.2 | SPF  |      |      |  |  |  |     |
| 7 - 2                                                                              | 2x4     | DRY    | No.2 | SPF  |      |      |  |  |  |     |
| 7 - 5                                                                              | 2x4     | DRY    | No.2 | SPF  |      |      |  |  |  |     |
| ALL WEBS EXCEPT                                                                    |         | 2x3    | DRY  | No.2 | SPF  |      |  |  |  |     |
| DRY: SEASONED LUMBER.                                                              |         |        |      |      |      |      |  |  |  |     |
| <b>PLATES (table is in inches)</b>                                                 |         |        |      |      |      |      |  |  |  |     |
| JT                                                                                 | TYPE    | PLATES | W    | LEN  | Y    | X    |  |  |  |     |
| 2                                                                                  | TMVW-t  | MT20   | 3.0  | 4.0  | 1.50 | 1.00 |  |  |  |     |
| 3                                                                                  | TTW+m   | MT20   | 3.0  | 4.0  |      |      |  |  |  |     |
| 4                                                                                  | TMVW-t  | MT20   | 3.0  | 4.0  |      |      |  |  |  |     |
| 5                                                                                  | BMV1+p  | MT20   | 2.0  | 4.0  |      |      |  |  |  |     |
| 6                                                                                  | BMWWW-t | MT20   | 3.0  | 6.0  |      |      |  |  |  |     |
| 7                                                                                  | BMV1+p  | MT20   | 2.0  | 4.0  |      |      |  |  |  |     |
| A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.   |         |        |      |      |      |      |  |  |  |     |
|  |         |        |      |      |      |      |  |  |  |     |

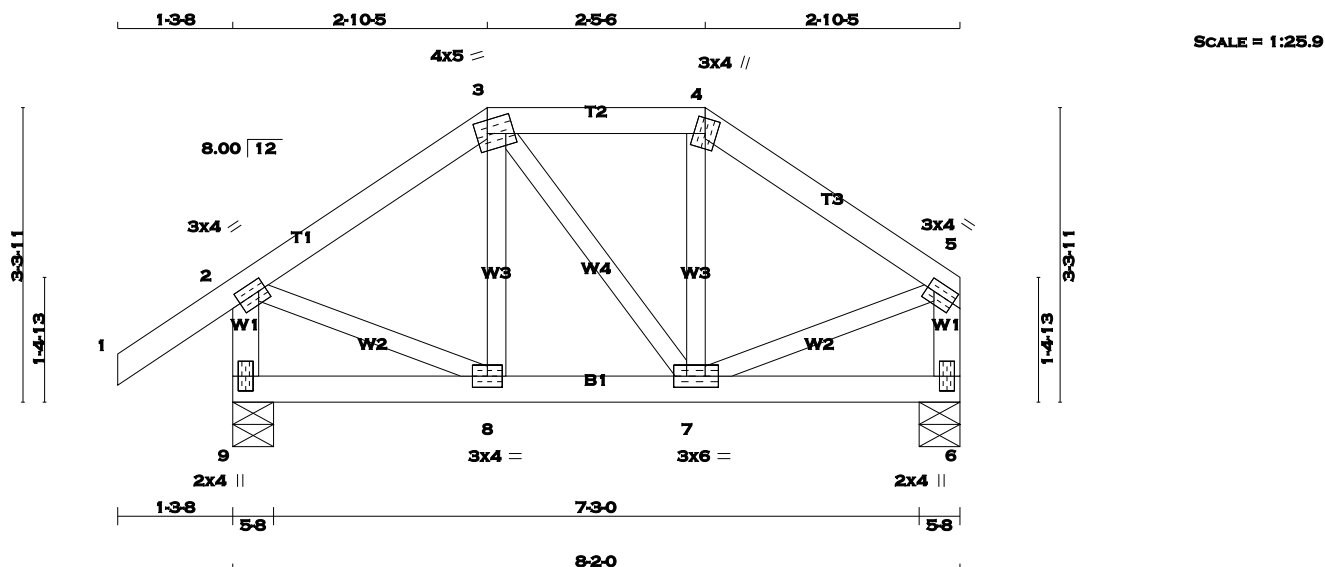
|                                                                                                      |  |                |         |                               |           |               |        |                |  |          |
|------------------------------------------------------------------------------------------------------|--|----------------|---------|-------------------------------|-----------|---------------|--------|----------------|--|----------|
| <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b> |  |                |         |                               |           |               |        |                |  |          |
| <b>BEARINGS</b>                                                                                      |  |                |         |                               |           |               |        |                |  |          |
|                                                                                                      |  | FACTORED       |         | MAXIMUM FACTORED              |           | INPUT         |        | REQRD          |  |          |
|                                                                                                      |  | GROSS REACTION |         | GROSS REACTION                |           | BRG           |        | BRG            |  |          |
| JT                                                                                                   |  | VERT           | HORZ    | DOWN                          | HORZ      | UPLIFT        | IN-SX  | IN-SX          |  |          |
| 5                                                                                                    |  | 383            | 0       | 383                           | 0         | 0             | 1-8    | 1-8            |  |          |
| 7                                                                                                    |  | 490            | 0       | 490                           | 0         | 0             | 5-8    | 5-8            |  |          |
| <b>UNFACTORED REACTIONS</b>                                                                          |  |                |         |                               |           |               |        |                |  |          |
|                                                                                                      |  | 1ST LCASE      |         | MAX./MIN. COMPONENT REACTIONS |           |               |        |                |  |          |
| JT                                                                                                   |  | COMBINED       | SNOW    | LIVE                          | PERM.LIVE | WIND          | DEAD   | SOIL           |  |          |
| 5                                                                                                    |  | 269            | 188 / 0 | 0 / 0                         | 0 / 0     | 0 / 0         | 81 / 0 | 0 / 0          |  |          |
| 7                                                                                                    |  | 341            | 252 / 0 | 0 / 0                         | 0 / 0     | 0 / 0         | 89 / 0 | 0 / 0          |  |          |
| BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5, 7                                           |  |                |         |                               |           |               |        |                |  |          |
| <b>BRACING</b>                                                                                       |  |                |         |                               |           |               |        |                |  |          |
| 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.                           |  |                |         |                               |           |               |        |                |  |          |
| <b>LOADING</b>                                                                                       |  |                |         |                               |           |               |        |                |  |          |
| TOTAL LOAD CASES: (3)                                                                                |  |                |         |                               |           |               |        |                |  |          |
| CHORDS                                                                                               |  |                |         |                               |           |               |        |                |  |          |
|                                                                                                      |  | MAX. FACTORED  |         | FACTORED                      |           | MAX. FACTORED |        | MAX. FACTORED  |  |          |
|                                                                                                      |  | MEMB. FORCE    |         | VERT. LOAD LC1 MAX            |           | MEMB. FORCE   |        | MEMB. FORCE    |  |          |
|                                                                                                      |  | (LBS)          |         | (PLF) CSI (LC)                |           | (LBS)         |        | (LBS) CSI (LC) |  |          |
| FR-TO                                                                                                |  |                |         | FROM TO                       |           | FR-TO         |        |                |  |          |
| 1-2                                                                                                  |  | 0 / 29         |         | -77.3 -77.3 0.10 (1)          |           | 10.00         |        | 6-3 -145 / 23  |  | 0.03 (1) |
| 2-3                                                                                                  |  | -301 / 0       |         | -77.3 -77.3 0.11 (1)          |           | 6.25          |        | 6-4 0 / 285    |  | 0.06 (1) |
| 3-4                                                                                                  |  | -245 / 0       |         | -77.3 -77.3 0.36 (1)          |           | 6.25          |        | 2-6 0 / 266    |  | 0.06 (1) |
| 5-4                                                                                                  |  | -346 / 0       |         | 0.0 0.0 0.08 (1)              |           | 7.81          |        |                |  |          |
| 7-2                                                                                                  |  | -476 / 0       |         | 0.0 0.0 0.05 (1)              |           | 7.81          |        |                |  |          |
| 7-6                                                                                                  |  | 0 / 0          |         | -17.5 -17.5 0.10 (3)          |           | 10.00         |        |                |  |          |
| 6-5                                                                                                  |  | 0 / 0          |         | -17.5 -17.5 0.10 (3)          |           | 10.00         |        |                |  |          |
| WEBS                                                                                                 |  |                |         |                               |           |               |        |                |  |          |
|                                                                                                      |  | MAX. FACTORED  |         | MAX. FACTORED                 |           | MAX. FACTORED |        | MAX. FACTORED  |  |          |
|                                                                                                      |  | MEMB. FORCE    |         | MEMB. FORCE                   |           | MEMB. FORCE   |        | MEMB. FORCE    |  |          |
|                                                                                                      |  | (LBS)          |         | (LBS)                         |           | (LBS)         |        | (LBS)          |  |          |
| FR-TO                                                                                                |  |                |         | FROM TO                       |           | FR-TO         |        |                |  |          |
| 1-2                                                                                                  |  | 0 / 29         |         | -77.3 -77.3 0.10 (1)          |           | 10.00         |        | 6-3 -145 / 23  |  | 0.03 (1) |
| 2-3                                                                                                  |  | -301 / 0       |         | -77.3 -77.3 0.11 (1)          |           | 6.25          |        | 6-4 0 / 285    |  | 0.06 (1) |
| 3-4                                                                                                  |  | -245 / 0       |         | -77.3 -77.3 0.36 (1)          |           | 6.25          |        | 2-6 0 / 266    |  | 0.06 (1) |
| 5-4                                                                                                  |  | -346 / 0       |         | 0.0 0.0 0.08 (1)              |           | 7.81          |        |                |  |          |
| 7-2                                                                                                  |  | -476 / 0       |         | 0.0 0.0 0.05 (1)              |           | 7.81          |        |                |  |          |
| 7-6                                                                                                  |  | 0 / 0          |         | -17.5 -17.5 0.10 (3)          |           | 10.00         |        |                |  |          |
| 6-5                                                                                                  |  | 0 / 0          |         | -17.5 -17.5 0.10 (3)          |           | 10.00         |        |                |  |          |

|                                                                                                    |           |       |         |      |      |      |  |  |  |  |
|----------------------------------------------------------------------------------------------------|-----------|-------|---------|------|------|------|--|--|--|--|
| <b>DESIGN CRITERIA</b>                                                                             |           |       |         |      |      |      |  |  |  |  |
| 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  |      |      |  |  |  |  |
| <b>SPACING = 24.0 IN. C/C</b>                                                                      |           |       |         |      |      |      |  |  |  |  |
| 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 (0.27")                                                                 |           |       |         |      |      |      |  |  |  |  |
| CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")                                                        |           |       |         |      |      |      |  |  |  |  |
| ALLOWABLE DEFL.(TL)= L/360 (0.27")                                                                 |           |       |         |      |      |      |  |  |  |  |
| CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")                                                        |           |       |         |      |      |      |  |  |  |  |
| CSI: TC=0.36 (3-4:1), BC=0.10 (6-7:3), WB=0.06 (4-6:1), SSI=0.16 (3-4:1)                           |           |       |         |      |      |      |  |  |  |  |
| 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) | SHEAR | SECTION |      |      |      |  |  |  |  |
|                                                                                                    | (PSI)     | (PLI) | (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= 0.87 (2) (INPUT = 0.90 )                                                                 |           |       |         |      |      |      |  |  |  |  |
| JSI METAL= 0.16 (2) (INPUT = 1.00 )                                                                |           |       |         |      |      |      |  |  |  |  |

|                                                                                                                                                                                                                   |  |  |  |  |  |  |  |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|
| <div>RECEIVED<br/>TOWN OF MILTON<br/>MAR 29, 2017<br/>17-5010<br/>BUILDING DIVISION</div>                                                                                                                         |  |  |  |  |  |  |  |  |  |  |
| <div>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.</div> |  |  |  |  |  |  |  |  |  |  |







TOTAL WEIGHT = 36 lb

| <b>LUMBER</b>     |      |     |        |       |
|-------------------|------|-----|--------|-------|
| N. L. G. A. RULES |      |     |        |       |
| CHORDS            | SIZE |     | LUMBER | DESCR |
| 1 - 3             | 2x4  | DRY | No.2   | SPF   |
| 3 - 4             | 2x4  | DRY | No.2   | SPF   |
| 4 - 5             | 2x4  | DRY | No.2   | SPF   |
| 9 - 2             | 2x4  | DRY | No.2   | SPF   |
| 6 - 5             | 2x4  | DRY | No.2   | SPF   |
| 9 - 6             | 2x4  | DRY | No.2   | SPF   |

|                    |     |     |      |
|--------------------|-----|-----|------|
| ALL WEBS<br>EXCEPT | 2x3 | DRY | No.2 |
|--------------------|-----|-----|------|

DRY: SEASONED LUMBER.

**PLATES** (table is in inches)

| JT | TYPE     | PLATES | W   | LEN | Y    | X    |
|----|----------|--------|-----|-----|------|------|
| 2  | TMVW-t   | MT20   | 3.0 | 4.0 | 1.50 | 1.00 |
| 3  | TTWW-m   | MT20   | 4.0 | 5.0 | 1.75 | 1.50 |
| 4  | TTW+m    | MT20   | 3.0 | 4.0 |      |      |
| 5  | TMVW-t   | MT20   | 3.0 | 4.0 | 1.50 | 1.00 |
| 6  | BMV1+p   | MT20   | 2.0 | 4.0 |      |      |
| 7  | BMWWWW-t | MT20   | 3.0 | 6.0 |      |      |
| 8  | BMWW-t   | MT20   | 3.0 | 4.0 |      |      |
| 9  | RMV1+n   | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TI 20 PLATES IS ALLOWED

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

| FACTORED<br>GROSS REACTION |      |      | MAXIMUM FACTORED<br>GROSS REACTION |      |        | INPUT<br>BRG | REQRD<br>BRG |
|----------------------------|------|------|------------------------------------|------|--------|--------------|--------------|
| JT                         | VERT | HORZ | DOWN                               | HORZ | UPLIFT | IN-SX        | IN-SX        |
| 9                          | 493  | 0    | 493                                | 0    | 0      | 5-8          | 5-8          |
| 6                          | 387  | 0    | 387                                | 0    | 0      | 5-8          | 5-8          |

### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |        |       |
|-----------|----------|-------------------------------|-------|-----------|-------|--------|-------|
| JT        | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD   | SOIL  |
| 9         | 344      | 254 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 90 / 0 | 0 / 0 |
| 6         | 272      | 190 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 82 / 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: (3)**

| C H O R D S |                                 |                                 |                        |                          | W E B S |                                 |                 |          |  |
|-------------|---------------------------------|---------------------------------|------------------------|--------------------------|---------|---------------------------------|-----------------|----------|--|
| MEMB.       | MAX. FACTORED<br>FORCE<br>(LBS) | FACTORED<br>VERT. LOAD<br>(PLF) | LC1<br>MAX<br>CSI (LC) | MAX.<br>UNBRAC<br>LENGTH | MEMB.   | MAX. FACTORED<br>FORCE<br>(LBS) | MAX<br>CSI (LC) |          |  |
| FR-TO       |                                 | FROM                            | TO                     |                          | FR-TO   |                                 |                 |          |  |
| 1-2         | 0 / 29                          | -77.3                           | -77.3                  | 0.10 (1)                 | 10.00   | 8-3                             | -40 / 28        | 0.01 (3) |  |
| 2-3         | -295 / 0                        | -77.3                           | -77.3                  | 0.08 (1)                 | 6.25    | 3-7                             | 0 / 0           | 0.00 (1) |  |
| 3-4         | -243 / 0                        | -77.3                           | -77.3                  | 0.06 (1)                 | 6.25    | 7-8                             | -41 / 28        | 0.01 (3) |  |
| 4-5         | -295 / 0                        | -77.3                           | -77.3                  | 0.08 (1)                 | 6.25    | 2-4                             | 0 / 261         | 0.06 (1) |  |
| 9-2         | -471 / 0                        | 0.0                             | 0.0                    | 0.05 (1)                 | 7.81    | 7-5                             | 0 / 261         | 0.06 (1) |  |
| 6-5         | -364 / 0                        | 0.0                             | 0.0                    | 0.04 (1)                 | 7.81    |                                 |                 |          |  |
| 9-8         | 0 / 0                           | -17.5                           | -17.5                  | 0.03 (3)                 | 10.00   |                                 |                 |          |  |
| 8-7         | 0 / 244                         | -17.5                           | -17.5                  | 0.05 (1)                 | 10.00   |                                 |                 |          |  |
| 7-6         | 0 / 0                           | -17.5                           | -17.5                  | 0.03 (3)                 | 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

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 (0.27")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.27")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.10 (1-2:1) , BC=0.05 (7-8:1) , WB=0.06 (2-8:1) , SSI=0.07 (3-4:1)

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) |     | SHEAR |     | SECTION |      |
|             | (PSI)     |     | (PLI) |     | (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.

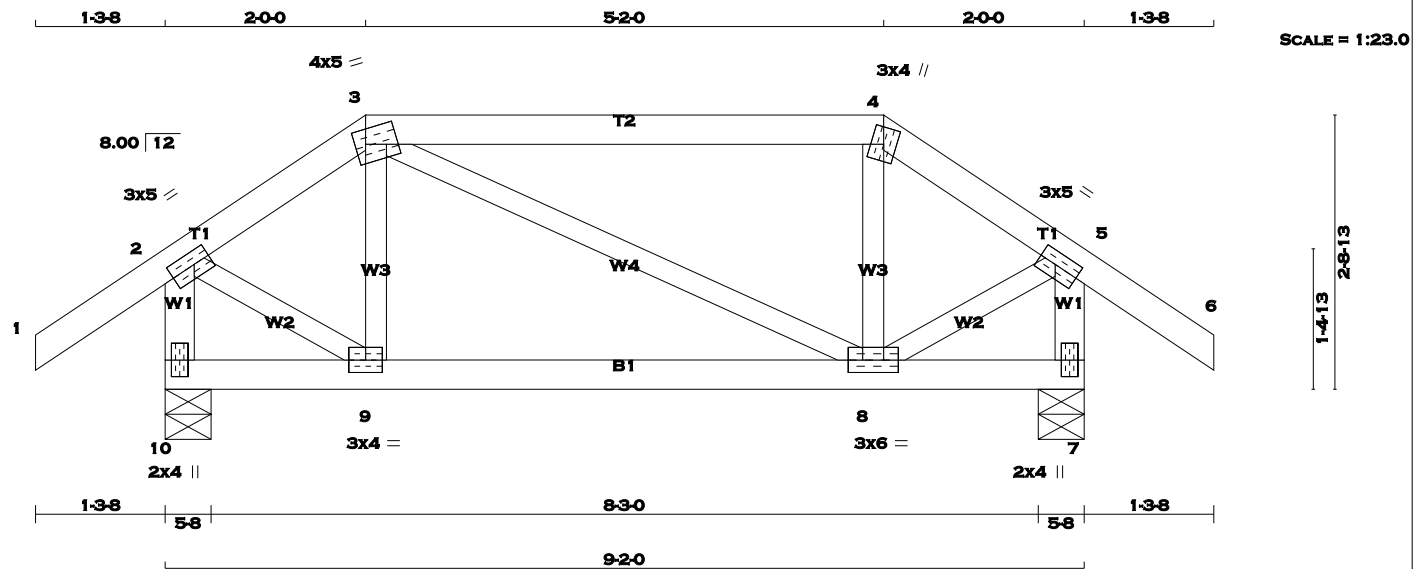
JSI GRIP= 0.85 (2) (INPUT = 0.90 )  
JSI METAL= 0.16 (2) (INPUT = 1.00 )



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**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.**





TOTAL WEIGHT = 39 lb [M]

| LUMBER            |        |      |        | DESCR. |  |
|-------------------|--------|------|--------|--------|--|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER |        |  |
| 1 - 3             | 2x4    | DRY  | No.2   | SPF    |  |
| 3 - 4             | 2x4    | DRY  | No.2   | SPF    |  |
| 4 - 6             | 2x4    | DRY  | No.2   | SPF    |  |
| 10 - 2            | 2x4    | DRY  | No.2   | SPF    |  |
| 7 - 5             | 2x4    | DRY  | No.2   | SPF    |  |
| 10 - 7            | 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  | TMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 3  | TTWW-m | MT20   | 4.0 | 5.0 | 1.75 | 1.25 |
| 4  | TTW+m  | MT20   | 3.0 | 4.0 |      |      |
| 5  | TMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| 7  | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| 8  | BMWW-t | MT20   | 3.0 | 6.0 |      |      |
| 9  | BMWW-t | MT20   | 3.0 | 4.0 |      |      |
| 10 | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

A SIZE FOR SIZE SUBSTITUTION OF MITEK M120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

| BEARINGS |      | FACTORED       |      | MAXIMUM FACTORED |      | INPUT |       | REQRD |       |
|----------|------|----------------|------|------------------|------|-------|-------|-------|-------|
| JT       | VERT | GROSS REACTION | HORZ | DOWN             | HORZ | BRG   | IN-SX | BRG   | IN-SX |
| 10       | 541  | 0              | 541  | 0                | 0    | 5-8   | 5-8   | 5-8   | 5-8   |
| 7        | 541  | 0              | 541  | 0                | 0    | 5-8   | 5-8   | 5-8   | 5-8   |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE | MAX/MIN. | COMPONENT REACTIONS |           |       |         |       |  |  |
|----|-----------|----------|---------------------|-----------|-------|---------|-------|--|--|
| JT | COMBINED  | SNOW     | LIVE                | PERM.LIVE | WIND  | DEAD    | SOIL  |  |  |
| 10 | 377       | 277 / 0  | 0 / 0               | 0 / 0     | 0 / 0 | 100 / 0 | 0 / 0 |  |  |
| 7  | 377       | 277 / 0  | 0 / 0               | 0 / 0     | 0 / 0 | 100 / 0 | 0 / 0 |  |  |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 10, 7

**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: (3)

| CHORDS |                           |                           |                | WEBS  |                           |              |               |
|--------|---------------------------|---------------------------|----------------|-------|---------------------------|--------------|---------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 (LC)   | MEMB. | MAX. FACTORED FORCE (LBS) | MAX LC1 (LC) | UNBRAC LENGTH |
| FR-TO  |                           | FROM                      | TO             | FR-TO |                           | FROM         | TO            |
| 1-2    | 0 / 29                    | -77.3                     | -77.3 0.10 (1) | 10.00 | 9-3                       | -78 / 35     | 0.01 (1)      |
| 2-3    | -357 / 0                  | -77.3                     | -77.3 0.05 (1) | 6.25  | 3-8                       | 0 / 0        | 0.00 (1)      |
| 3-4    | -293 / 0                  | -77.3                     | -77.3 0.36 (1) | 6.25  | 8-4                       | -78 / 35     | 0.01 (1)      |
| 4-5    | -357 / 0                  | -77.3                     | -77.3 0.05 (1) | 6.25  | 2-9                       | 0 / 333      | 0.07 (1)      |
| 5-6    | 0 / 29                    | -77.3                     | -77.3 0.10 (1) | 10.00 | 8-5                       | 0 / 333      | 0.07 (1)      |
| 10-2   | -535 / 0                  | 0.0                       | 0.0 0.06 (1)   | 7.81  |                           |              |               |
| 7-5    | -535 / 0                  | 0.0                       | 0.0 0.06 (1)   | 7.81  |                           |              |               |
| 10-9   | 0 / 0                     | -17.5                     | -17.5 0.07 (3) | 10.00 |                           |              |               |
| 9-8    | 0 / 293                   | -17.5                     | -17.5 0.09 (3) | 10.00 |                           |              |               |
| 8-7    | 0 / 0                     | -17.5                     | -17.5 0.07 (3) | 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

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 (0.31")  
 CALCULATED VERT. DEFL.(LL) = L/999 (0.00")  
 ALLOWABLE DEFL.(TL)= L/360 (0.31")  
 CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.36 (3-4:1), BC=0.09 (8-9:3), WB=0.07 (2-9:1), SSI=0.16 (3-4:1)

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) SHEAR SECTION  
 (PSI) (PLI) (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.

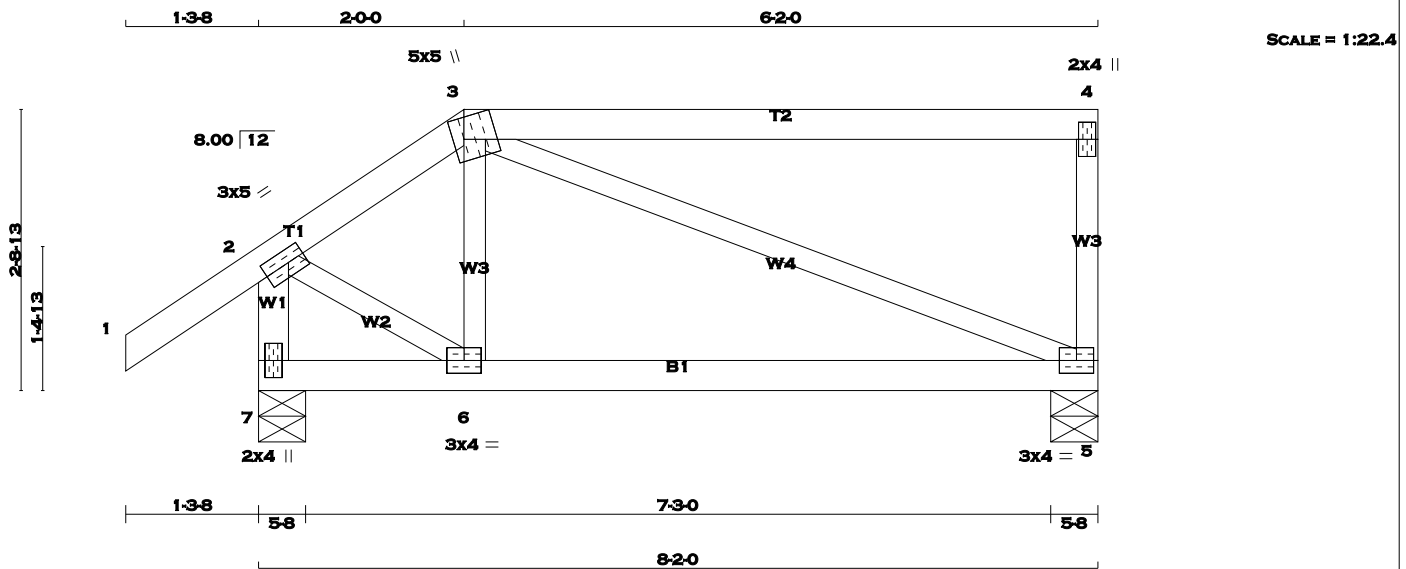
JSI GRIP= 0.60 (8) (INPUT = 0.90 )  
 JSI METAL= 0.14 (2) (INPUT = 1.00 )



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TOTAL WEIGHT = 32 lb

[M]

LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

1 - 3

2x4

DRY

No.2

SPF

3 - 4

2x4

DRY

No.2

SPF

5 - 4

2x3

DRY

No.2

SPF

7 - 2

2x4

DRY

No.2

SPF

7 - 5

2x4

DRY

No.2

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT

TYPE

PLATES

W

LEN

Y

X

2

TMVW-t

MT20

3.0

5.0

1.50

2.00

3

TTWW+m

MT20

5.0

5.0

Edge

3.75

4

TMV+p

MT20

2.0

4.0

5

BMVW1-t

MT20

3.0

4.0

6

BMVW1-t

MT20

3.0

4.0

7

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.

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

BEARINGS

FACTORED

MAXIMUM FACTORED

INPUT

REQRD

GROSS REACTION

GROSS REACTION

BRG

BRG

JT

VERT

HORZ

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

5

387

0

387

0

0

5-8

5-8

7

493

0

493

0

0

5-8

5-8

UNFACTORED REACTIONS

1ST LCASE

MAX./MIN. COMPONENT REACTIONS

JT

COMBINED

SNOW

LIVE

PERM.LIVE

WIND

DEAD

SOIL

5

272

190 / 0

0 / 0

0 / 0

0 / 0

82 / 0

0 / 0

7

344

254 / 0

0 / 0

0 / 0

0 / 0

90 / 0

0 / 0

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

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: (3)

CHORDS

MEMB.

MAX. FACTORED FORCE (LBS)

FACTORED VERT. LOAD (PLF)

LC1 (LC)

MAX

UNBRAC LENGTH

WEBS

MEMB.

MAX. FACTORED FORCE (LBS)

MAX

CSI (LC)

FR-TO

FROM

TO

FR-TO

1-2

0 / 29

-77.3

-77.3

0.10 (1)

10.00

6-3

-31 / 72

0.02 (3)

2-3

-322 / 0

-77.3

-77.3

0.05 (1)

6.25

3-5

-286 / 0

0.22 (1)

3-4

0 / 0

-77.3

-77.3

0.50 (1)

10.00

2-6

0 / 301

0.07 (1)

5-4

-238 / 0

0.0

0.0

0.05 (1)

7.81

7-2

-501 / 0

0.0

0.0

0.05 (1)

7.81

7-6

0 / 0

-17.5

-17.5

0.14 (3)

10.00

6-5

0 / 266

-17.5

-17.5

0.16 (3)

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

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 (0.27")

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

ALLOWABLE DEFL.(TL)= L/360 (0.27")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

CSI: TC=0.50 (3-4:1), BC=0.16 (5-6:3), WB=0.22 (3-5:1), SSI=0.19 (3-4:1)

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) SHEAR SECTION

(PSI) (PLI) (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= 0.49 (2) (INPUT = 0.90 )

JSI METAL= 0.13 (2) (INPUT = 1.00 )

LICENSED PROFESSIONAL ENGINEER

R. M. TREVISAN

100136551

March 13th, 2017

PROVINCE OF ONTARIO

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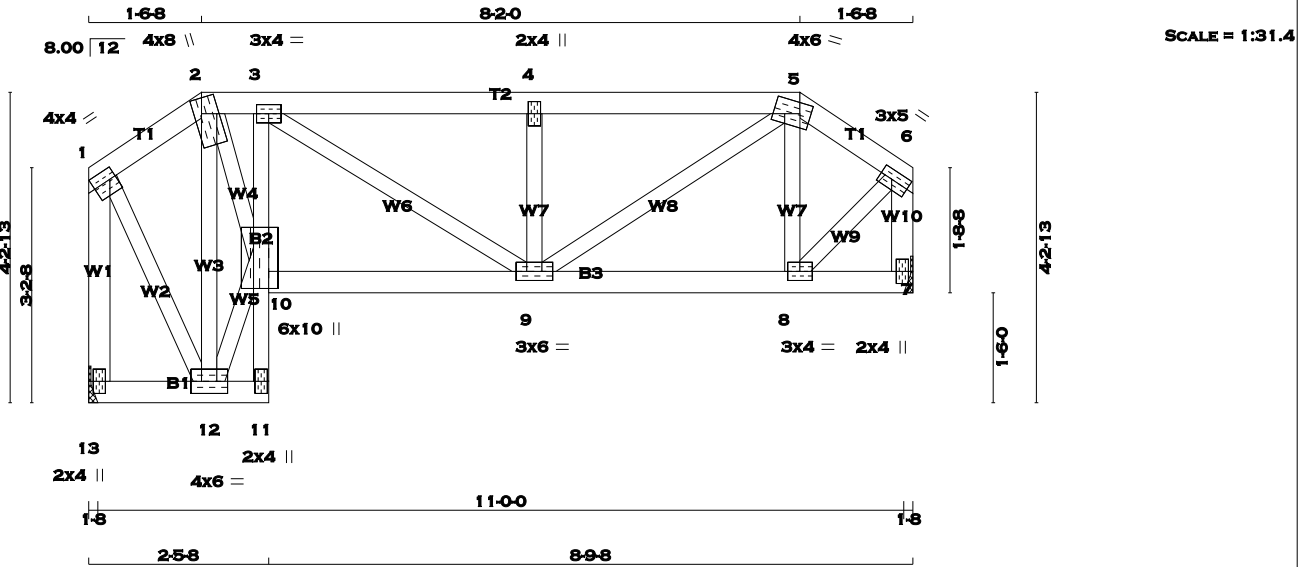
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17-5010

BUILDING DIVISION

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KOTT



| LUMBER                       |        |      |        | DESCR. |
|------------------------------|--------|------|--------|--------|
| N. L. G. A. RULES            | CHORDS | SIZE | LUMBER |        |
| 1 - 2                        | 2x4    | DRY  | No.2   | SPF    |
| 2 - 5                        | 2x4    | DRY  | No.2   | SPF    |
| 5 - 6                        | 2x4    | DRY  | No.2   | SPF    |
| 13 - 1                       | 2x4    | DRY  | No.2   | SPF    |
| 7 - 6                        | 2x4    | DRY  | No.2   | SPF    |
| 13 - 11                      | 2x4    | DRY  | No.2   | SPF    |
| 11 - 3                       | 2x3    | DRY  | No.2   | SPF    |
| 10 - 7                       | 2x4    | DRY  | No.2   | SPF    |
| ALL WEBS 2x3 DRY No.2 EXCEPT |        |      |        | SPF    |
| DRY: SEASONED LUMBER.        |        |      |        |        |

| PLATES (table is in inches) |         |        |     |      |           |
|-----------------------------|---------|--------|-----|------|-----------|
| JT                          | TYPE    | PLATES | W   | LEN  | Y X       |
| 1                           | TMVW-t  | MT20   | 4.0 | 4.0  | 1.75 Edge |
| 2                           | TTWW+m  | MT20   | 4.0 | 8.0  | 2.50 1.25 |
| 3                           | TMVW-t  | MT20   | 3.0 | 4.0  |           |
| 4                           | TMW+w   | MT20   | 2.0 | 4.0  |           |
| 5                           | TTWW-m  | MT20   | 4.0 | 6.0  | 1.75 1.75 |
| 6                           | TMVW-t  | MT20   | 3.0 | 5.0  | 1.50 2.00 |
| 7                           | BMV1+p  | MT20   | 2.0 | 4.0  |           |
| 8                           | BMWW-t  | MT20   | 3.0 | 4.0  |           |
| 9                           | BMWWW-t | MT20   | 3.0 | 6.0  |           |
| 10                          | BMWWW+p | MT20   | 6.0 | 10.0 | 6.75 4.00 |
| 11                          | BMV+p   | MT20   | 2.0 | 4.0  |           |
| 12                          | BMWWW-t | MT20   | 4.0 | 6.0  |           |
| 13                          | 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.

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

| BEARINGS |      |      |        | FACTORED       |      |      |        | MAXIMUM FACTORED |      |      |        | INPUT            |                     | REQRD            |                     |
|----------|------|------|--------|----------------|------|------|--------|------------------|------|------|--------|------------------|---------------------|------------------|---------------------|
| JT       | VERT | HORZ | UPLIFT | GROSS REACTION | DOWN | HORZ | UPLIFT | GROSS REACTION   | DOWN | HORZ | UPLIFT | BRG              | IN-SX               | BRG              | IN-SX               |
| 13       | 534  | 0    | 0      | 534            | 0    | 0    | 0      | 534              | 0    | 0    | 0      | HANGER BY OTHERS | MIN. SEAT SIZE: 1-8 | HANGER BY OTHERS | MIN. SEAT SIZE: 1-8 |
| 7        | 534  | 0    | 0      | 534            | 0    | 0    | 0      | 534              | 0    | 0    | 0      | HANGER BY OTHERS | MIN. SEAT SIZE: 1-8 | HANGER BY OTHERS | MIN. SEAT SIZE: 1-8 |

| UNFACTORED REACTIONS |          |         |       |           |       |         |       |  |
|----------------------|----------|---------|-------|-----------|-------|---------|-------|--|
| JT                   | COMBINED | SNOW    | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |  |
| 13                   | 374      | 262 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 112 / 0 | 0 / 0 |  |
| 7                    | 374      | 262 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 112 / 0 | 0 / 0 |  |

**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: (3) |                           |                           |                |               |       |                           |          |  |  |
| CHORDS                |                           |                           |                |               | WEBS  |                           |          |  |  |
| MEMB.                 | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (LBS) | LC1 MAX (LC)   | UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX (LC) |  |  |
| FR-TO                 |                           | FROM                      | TO             |               | FR-TO |                           |          |  |  |
| 1-2                   | -235 / 0                  | -77.3                     | -77.3 0.03 (1) | 6.25          | 12-2  | -730 / 0                  | 0.20 (1) |  |  |
| 2-3                   | -511 / 0                  | -77.3                     | -77.3 0.06 (1) | 6.25          | 12-10 | 0 / 483                   | 0.11 (1) |  |  |
| 3-4                   | -659 / 0                  | -77.3                     | -77.3 0.15 (1) | 6.25          | 2-10  | 0 / 884                   | 0.20 (1) |  |  |
| 4-5                   | -659 / 0                  | -77.3                     | -77.3 0.15 (1) | 6.25          | 3-9   | 0 / 162                   | 0.04 (1) |  |  |
| 5-6                   | -373 / 0                  | -77.3                     | -77.3 0.03 (1) | 6.25          | 9-4   | -327 / 0                  | 0.05 (1) |  |  |
| 13-1                  | -533 / 0                  | 0.0                       | 0.0 0.09 (1)   | 7.81          | 9-5   | 0 / 432                   | 0.10 (1) |  |  |
| 7-6                   | -528 / 0                  | 0.0                       | 0.0 0.06 (1)   | 7.81          | 8-5   | -205 / 0                  | 0.03 (1) |  |  |
|                       |                           |                           |                |               | 1-12  | 0 / 393                   | 0.09 (1) |  |  |
| 13-12                 | 0 / 0                     | -17.5                     | -17.5 0.03 (1) | 10.00         | 8-6   | 0 / 404                   | 0.09 (1) |  |  |
| 12-11                 | 0 / 11                    | -17.5                     | -17.5 0.03 (1) | 10.00         |       |                           |          |  |  |
| 11-10                 | -26 / 0                   | 0.0                       | 0.0 0.06 (1)   | 7.81          |       |                           |          |  |  |
| 10-3                  | -295 / 0                  | 0.0                       | 0.0 0.06 (1)   | 7.81          |       |                           |          |  |  |
| 10-9                  | 0 / 527                   | -17.5                     | -17.5 0.12 (1) | 10.00         |       |                           |          |  |  |
| 9-8                   | 0 / 300                   | -17.5                     | -17.5 0.08 (3) | 10.00         |       |                           |          |  |  |
| 8-7                   | 0 / 0                     | -17.5                     | -17.5 0.03 (3) | 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**

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 (0.37")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")  
ALLOWABLE DEFL.(TL)= L/360 (0.37")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.15 (3-4:1), BC=0.12 (9-10:1), WB=0.20 (2-10:1), SSI=0.13 (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) SHEAR SECTION  
(PSI) (PLI) (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= 0.86 (6) (INPUT = 0.90 )  
JSI METAL= 0.20 (2) (INPUT = 1.00 )



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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.



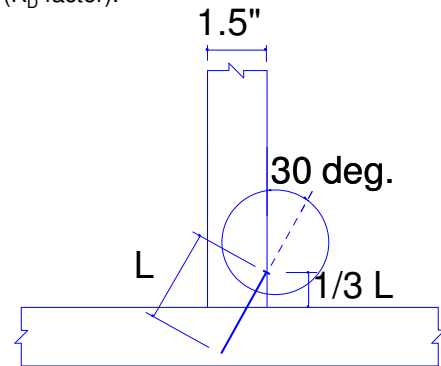
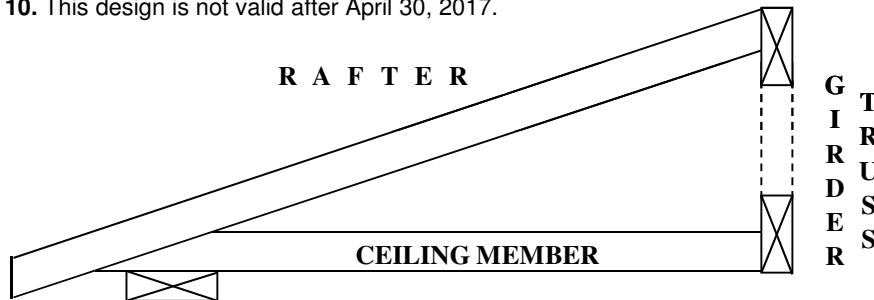
## BEARING ANCHORAGE BY TOE-NAILS FOR LATERAL CAPACITY

B37579H1

| NAIL TYPE        | LENGTH<br>(IN) | DIAMETER<br>(IN) | NAIL LATERAL CAPACITY (LB) |        |
|------------------|----------------|------------------|----------------------------|--------|
|                  |                |                  | S-P-F                      | D. FIR |
| COMMON<br>WIRE   | 3.00           | 0.144            | 132                        | 147    |
|                  | 3.25           | 0.144            | 132                        | 147    |
|                  | 3.50           | 0.160            | 159                        | 177    |
| COMMON<br>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             |



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## BEARING ANCHORAGE BY TOE-NAILS FOR WIND LOADING

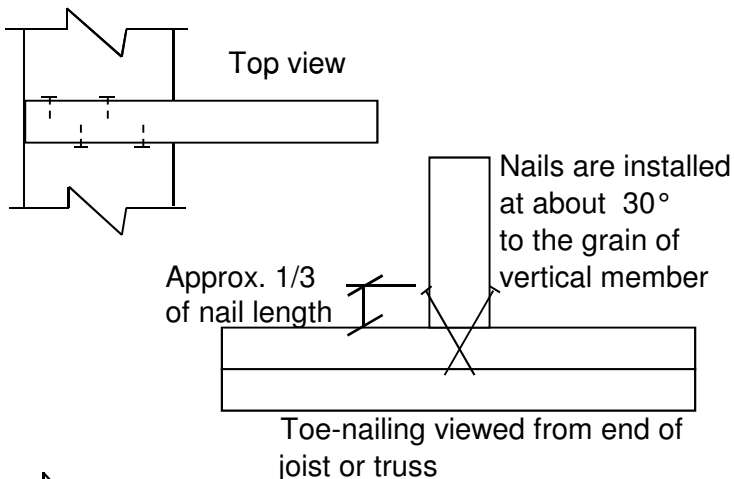
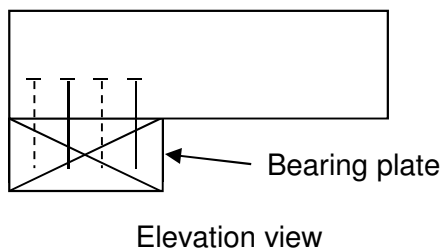
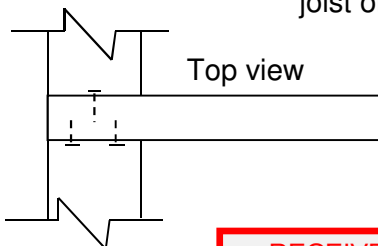
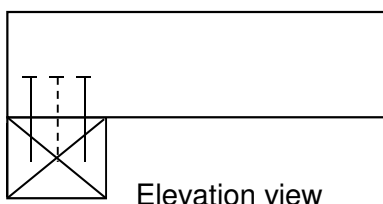
B37579H2

| NAIL TYPE        | LENGTH<br>(IN) | DIAMETER<br>(IN) | NAIL WITHDRAWAL CAPACITY (LB) |        |
|------------------|----------------|------------------|-------------------------------|--------|
|                  |                |                  | S-P-F                         | D. FIR |
| COMMON<br>WIRE   | 3.00           | 0.144            | 30                            | 42     |
|                  | 3.25           | 0.144            | 32                            | 45     |
|                  | 3.50           | 0.160            | 38                            | 52     |
| COMMON<br>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****Toe-nailing on 2x4 Bearing Plate**

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JOB NAME DETAILS

JOB DESC.

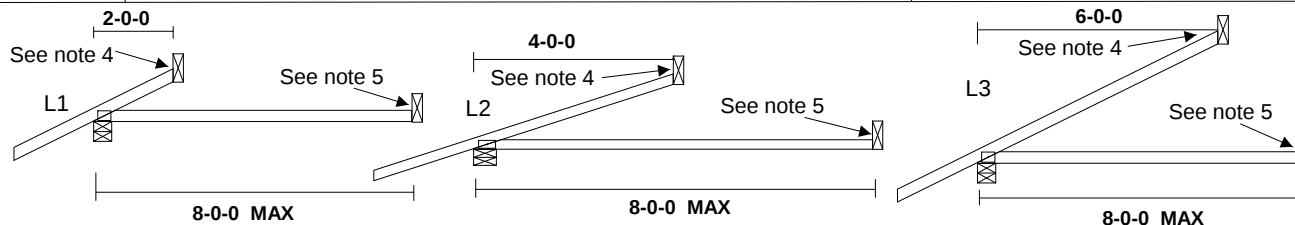
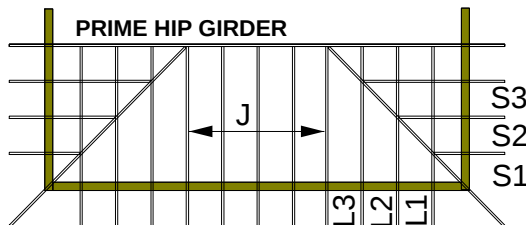
HIP END FRAMING

TRUSS BRIDGE-BLOCK 330

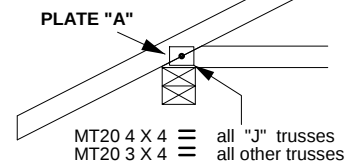
DRAWING NO.

B37579J

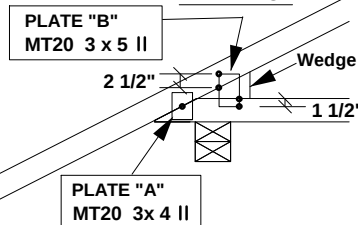
EMC JOB # P10317-056



DETAIL "A"



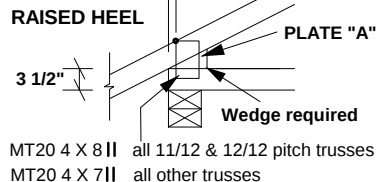
DETAIL "C"



CANTILEVER DETAIL "C"

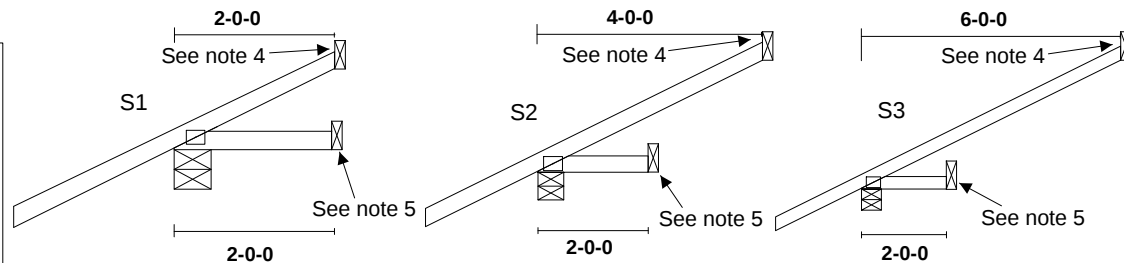
| SLOPE | MAX CANTILEVER | PLATE "B" | WEDGE SIZE |
|-------|----------------|-----------|------------|
| 3/12  | 17"            | 3 X 5     | 2 X 3      |
| 4/12  | 14"            | 3 X 5     | 2 X 3      |
| 5/12  | 12"            | 3 X 5     | 2 X 4      |
| 6/12  | 10"            | 3 X 5     | 2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

DETAIL "B"

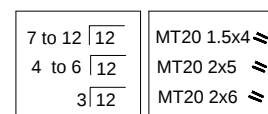


NOTES:

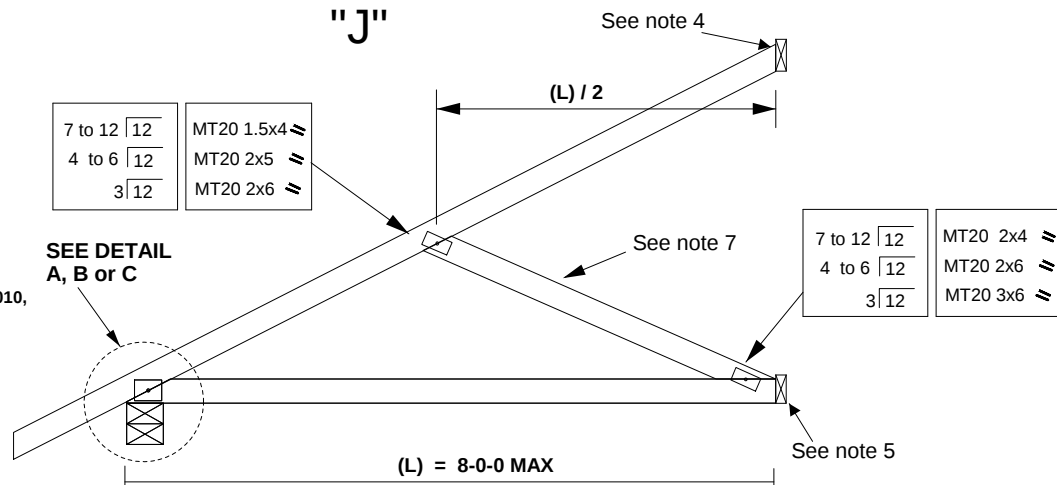
- ALL LUMBER SHALL BE 2x4 SPF OR D. Fir No. 2 DRY OR BETTER.
- THIS TRUSS IS DESIGNED FOR HOUSING AND SMALL BUILDING REQUIREMENTS OF PART 9 NBC 2010, WHERE GROUND SNOW LOAD IS 60.0 PSF OR LESS AND RAIN LOAD DOES NOT EXCEED 12.53 PSF; TOP CHORD DEAD LOAD IS 6 PSF OR LESS; BC LIVE LOAD IS 0 PSF AND BC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



"J"



SEE DETAIL A, B or C



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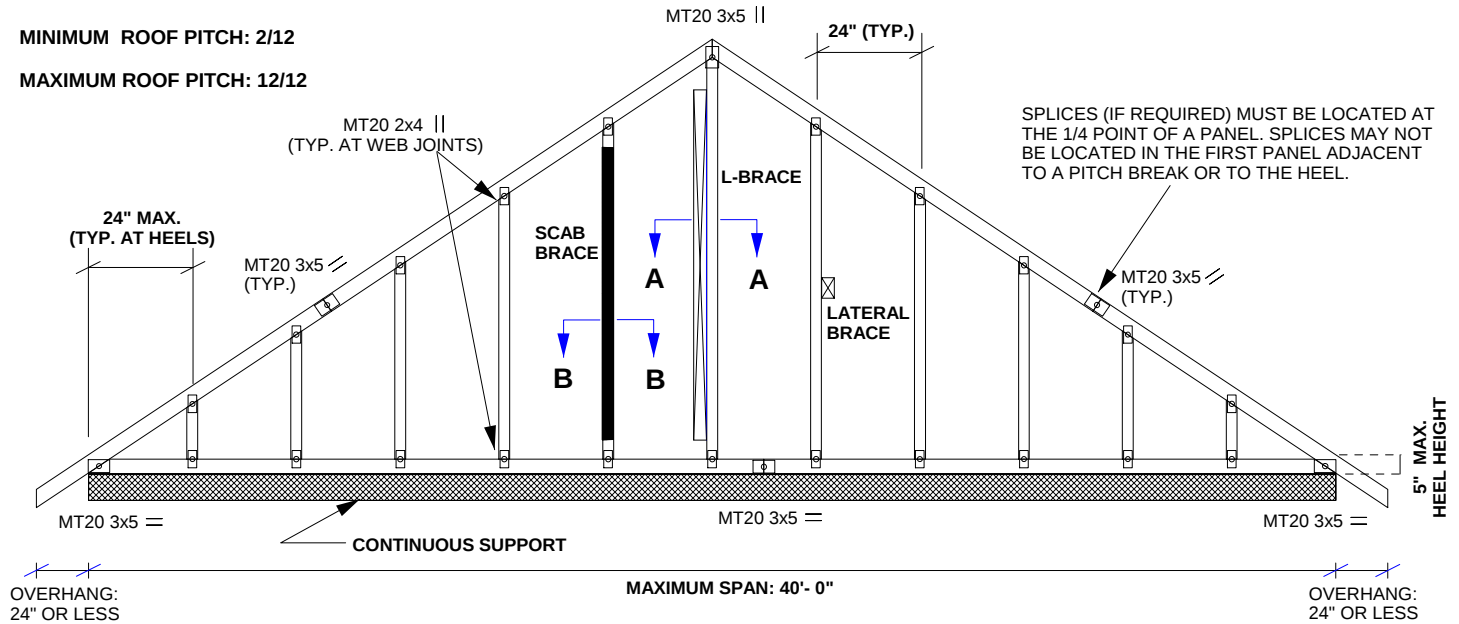
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MINIMUM ROOF PITCH: 2/12

MAXIMUM ROOF PITCH: 12/12



## LUMBER

TOP CHORD: 2 X 4 No. 2 DRY SPF or D- Fir  
 BOTTOM CHORD: 2 X 3 or 2 X 4 No. 2 DRY SPF or D- Fir  
 GABLE WEB: 2 X 3 or 2 X 4 No. 2 DRY SPF or D- Fir

## PLATES

JOINT PLATES  
 HEELS MT20 3 X 5  
 PEAK MT20 3 X 5  
 TC SPLICES MT20 3 X 5  
 BC SPLICES MT20 3 X 5  
 WEB JOINTS MT20 2 X 4

## DESIGN CRITERIA

TOP CHORD LL = 60.0 PSF OR LESS  
 TOP CHORD DL = 6.0 PSF OR LESS  
 BOTTOM CHORD LL = 0 PSF  
 BOTTOM CHORD DL = 7.0 PSF

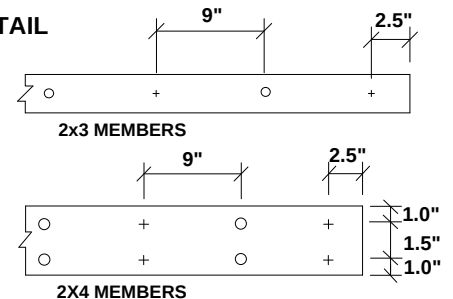
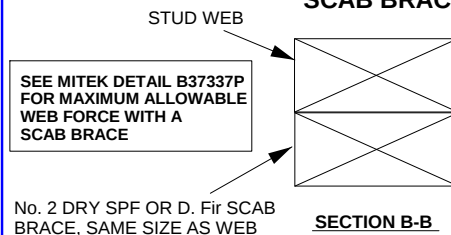
TOTAL LOAD = 73.0 PSF OR LESS

## BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2 FT.  
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10 FT. OR RIGID CEILING DIRECTLY APPLIED.  
 WEBS MUST BE Laterally Braced, SCAB BRACED OR L-BRACED AS INDICATED IN TABLE BELOW:

| WEB LENGTH (L)     | SCAB BRACE   | L-BRACE      | LATERAL BRACE                  |
|--------------------|--------------|--------------|--------------------------------|
| L < 6 FT.          | NOT REQUIRED | NOT REQUIRED | NOT REQUIRED                   |
| 6 FT. < L < 12 FT. | REQUIRED     | 2x4 L-BRACE  | 1 LATERAL AT 1/2 LENGTH OF WEB |

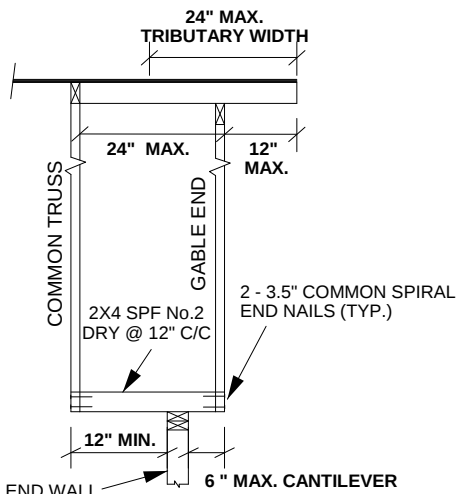
## SCAB BRACE DETAIL



FASTEN SCAB BRACE TO ONE FACE OF WEB WITH 9-3/4 GAUGE 0.122" X 3" COMMON SPIRAL NAILS SPACED @ 9" C/C (MAX) WITH 2.5" MINIMUM END DISTANCE. SCAB BRACE MUST COVER 90% OF WEB LENGTH. DRIVE NAILS ALTERNATELY FROM FRONT AND BACK FACES.

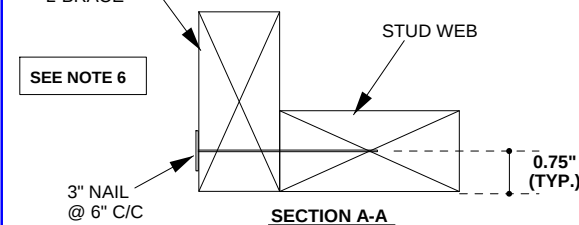
## CANTILEVER DETAIL

Note: Gable end may be cantilevered up to 6 inches past end wall as shown. Gable end to be continuously supported by 2x4 SPF No.2 (DRY) members at 12" o.c. along the bottom chord. Roof design loads shall not exceed the loading shown above.



2X4 No. 2 DRY SPF OR D. Fir  
 L-BRACE

## L-BRACE DETAIL



FASTEN L-BRACE TO NARROW EDGE OF WEB WITH ONE ROW OF 9-3/4 GAUGE 0.122" X 3" COMMON SPIRAL NAILS SPACED AT 6" C/C WITH 3" MINIMUM END DISTANCE. BRACE MUST COVER 90% OF WEB LENGTH.

## NOTES:

- Gable studs are spaced at 24" C/C (max.) with a max. length of 12 ft.
- All plates specified are MiTek MT20, centered at each joint, and pressed into both faces of truss.
- Truss spacing is 24" C/C, maximum.
- Gable truss is designed for continuous support. Bearing material must be of the same species as chord member and of grade No. 2 or better.
- This truss requires rigid sheathing attached to exposed face.
- 2x3 or 2x4 T-braces shown for gable webs in the MiTek engineering drawings may be replaced by a 2x4 L-brace as shown above.
- This truss is designed for residential or small building requirements, conforming to Part 9, NBCC 2010.
- This detail is not valid after April 30, 2017.

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