

Master Specification Atlantic Wood Truss Fabricators Association	PREFABRICATED WOOD TRUSSES	06190 Page 1 2010-January-15
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AWTFA
Atlantic Wood Truss Fabricators Association
WOOD TRUSS SPECIFICATIONS (TEMPLATE)
FOR WOOD TRUSS SPECIFIERS

PREFACE

This Specification Template is a compilation of usual industry specifications relating to the design, fabrication and erection of wood trusses. These specifications will evolve over a period of time and will be subject to change as improved methods replace those of today. This Template is available in an editable format by contacting the AWTFA.

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Part 1 - General

1.1 REFERENCES

- .1 CAN/CSA-O80-Series-97 (R2002), Wood Preservation.
- .2 CSA-O86-01 (R2005) Engineering Design in Wood.
- .3 CAN/CSA-O141-05, Softwood Lumber.
- .4 CSA S347-99 (R2004), Method of Test for Evaluation of Truss Plates Used in Lumber Joints.
- .5 CSA W47.1-03, Certification of Companies for Fusion Welding of Steel Structures.
- .6 NLGA-2003, Standard Grading Rules for Canadian Lumber.
- .7 TPIC 2007, Truss Design Procedures and Specifications For Light Metal Plate Connected Wood Trusses
- .8 Truss Plate Institute of Canada, Handling, Erection and Bracing of Wood Trusses.
- .9 National Building Code of Canada 2005 (NBCC)

1.2 DESIGN CRITERIA

- .1 Design wood trusses, bracing, bridging and connectors in accordance with Part 4 of NBCC, TPIC 2007 and CSA-O86-01(R2005) for the loads indicated on drawings, including snow drift and wind uplift loads, as well as minimum uniform and minimum concentrated loadings stipulated in NBC commentary.
- .2 Design loads, as applicable to project location and special conditions, is the responsibility of the Building Designer.
- .3 Limit live load deflection to 1/360th of span.
- .4 Girder truss locations that are shown on the structural drawings shall not be relocated without approval of the Consultant.
- .5 Truss webs.
 - .1 Minimum web size: 2x4 for trusses over 60'-0'.
 - .2 Adjacent trusses which are not similar (ex. hip trusses) and have webs that require bracing shall be braced using 'T', 'I', or 'L' braces, or other acceptable detail.
 - .3 Review all construction drawings and arrange webs to accommodate mechanical units and other specialties.

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- .6 Provide truss bearing enhancers or other acceptable means as required so that wall bearing plates are not overstressed in compression perpendicular to grain.

1.3 SOURCE QUALITY CONTROL

- .1 Identify lumber by grade stamp of an agency certified by Canadian Lumber Standards Administration Board.
- .2 Lumber used in manufacturing trusses must comply to size and grade indicated on truss drawing.

1.4 DRAWINGS

- .1 Drawings shall consist of truss placement drawing(s) and individual truss drawings.
- .2 Submit truss placement drawings and truss drawings for review prior to manufacturing.
- .3 Each truss drawing shall bear the signature and stamp of professional engineer licensed to practice in the province.
- .4 Truss placement drawings shall indicate principle dimensions, piece marks, truss spacing, and all other information necessary for the installation of the trusses.
- .5 Truss shop drawings shall indicate:
 - .1 Species, sizes, and grades of lumber used as truss members. Show pitch, span, camber, configuration and spacing of trusses. Show bearing details. Indicate design loads and stress increase.
 - .2 Indicate clearly all loading used in design.
 - .3 Indicate lateral web bracing for compression members if less than three identical adjacent members, provide a "T-brace", or other acceptable detail in lieu of continuous lateral bracing.
- .6 Submit manufacturer's data for all designed hangers. Truss designer is responsible for design of all truss to truss and truss to beam connections.

1.5 DELIVERY AND STORAGE

- .1 Upon delivery of trusses, submit to Contractor a copy of "Atlantic Wood Truss Fabricators Association's Recommended Handling and Erection Procedures for Trusses. Make available on site a copy for reference by Consultant. Handling and erection of trusses is the sole responsibility of the Contractor.
- .2 Offload trusses as per A.W.T.F.A.'s recommended procedures and in a manner which will not damage trusses or cause connector plates to pull out.
- .3 Store trusses in accordance with A.W.T.F.A.'s instructions. Prevent bending, warping and overturning of trusses. Report any damage to the Consultant.

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Part 2 - Products

2.1 MATERIALS

- .1 Lumber: SPF, No. 2 or better, softwood, S4S, 2 x 3 minimum nominal size for webs, and to the following standards:
 CAN/CSA-O141.
 NLGA (National Lumber Grading Association), Standard Grading Rules for Canadian Lumber.
- .2 Truss connector plates: to CAN/CSA-O86-01.
- .3 Truss uplift anchors, hangers and strap ties: as manufactured by an approved manufacturer, or approved equal. Model numbers as indicated on drawings, otherwise designed for factored loads indicated. Use manufacturer recommended fasteners for connections.

2.2 FABRICATION

- .1 Cut truss members to accurate length, angle, and size to assure tight joints for finished trusses, as per TPIC guidelines.
- .2 Assemble truss members to design configuration.
- .3 Connect members using metal connector plates as per approved truss shop drawings.

Part 3 - Execution

3.1 ERECTION

- .1 Erect wood trusses in accordance with AWTFAs Recommended Handling Procedures of Wood Trusses.
- .2 Exercise care to prevent out-of-plane bending of trusses.
- .3 Install temporary lateral and cross bracing to hold trusses plumb and in safe condition until permanent bracing and sheathing are installed.
- .4 Install web bracing in accordance with reviewed truss shop drawings.
- .5 Install permanent bracing as detailed on structural drawings prior to application of loads to trusses.
- .6 Restrict construction loads to below design loads to prevent overstressing of truss.

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- .7 Laminate girder trusses in accordance with reviewed truss drawings. Lamination to be completed prior to installing supported trusses.
- .8 Install hangers, tie-downs, strap ties, etc. in accordance with manufacturer's written instructions. Use manufacturer supplied or recommended fasteners for connections.
- .9 Do not cut or remove any truss material without approval of the Consultant.
- .10 Trusses shall not support any items unless specifically detailed on drawings or approved in writing by the Consultant.
- .11 Report damage to the Consultant. Correct damage to satisfaction of the Consultant.

3.2 REVIEW OF WORK

- .1 The Contractor shall inspect roof truss and bracing installation prior to final review by the Consultant and submit written report of all outstanding items and action to be taken prior to final review.
- .2 Provide a minimum 48 hours notice prior to final review by Consultant.
- .3 All work, including installation of all bracing, is to be complete prior to final review. Should there be any deficiencies found in the work that was not previously reported to the Consultant, any further inspection costs will be charged to the Contractor.

***** END *****