Western Wood Truss Association of Alberta

Conference and AGM

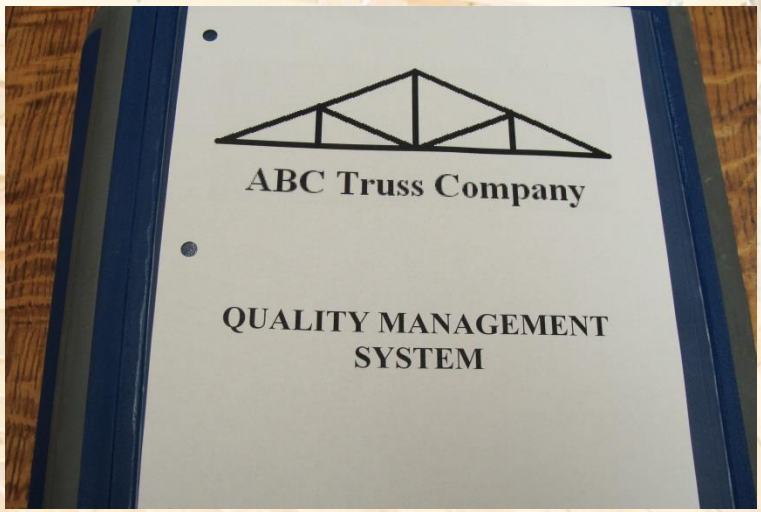
March 14, 2019

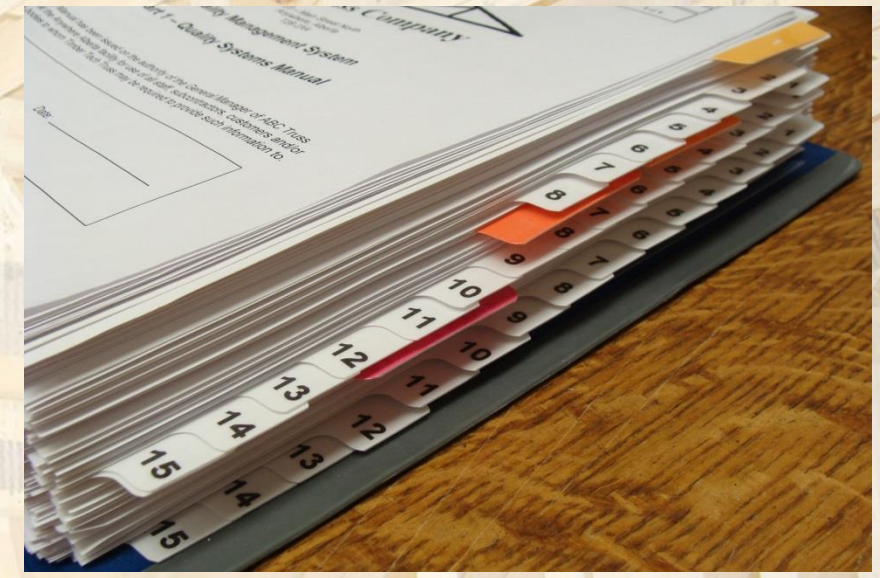
Quality Control Update

WWTA Quality Management System

- The History of Quality Control in Alberta
  - Annual inspections by the WWTA
  - Did it work?
  - Training –GOOD
  - Implementing a system-NOT SO GOOD
  - Purposes for auditing was hard
  - Pass-Fail?

2010





WWTA Quality Management System

- Template developed by Wayne and 3 Beta plants
- “Just give us the template so that we can work on it"
- Presented to members in workshops April-May 2009
- Some plants on way to writing manual and implementing the QMS

Feedback

- “Too heavy”
- “Good system, can see value, just too busy right now”
- “Not too sure how my QC guy is making out on it”
- “By boss is not making me do it so it is sitting”
- “Those first plants had it easy with Wayne doing the work for them.”

Feedback

- “too much stuff here that we don’t need”
- “Our Quality is great right now, so we must be doing it right.”
- “I start dosing off when I begin to read the manual.”
- “I like the old way where the Association was responsible for ensuring quality.”
- “What QMS are you talking about?”

2010-2018

- Some Plants have embraced the QMS and have achieved EXCELLENT results

2019

- The need for Q.C. uniform requirements across Canada has been gaining momentum and acceptance.
  - TPIC incorporating Appendix G
  - TPIC referencing “should” have Q.C.
  - TPIC referencing “shall” have Q.C.-2019
  - Support from other regions.

Building Code Requirements

- CWTA first wrote a Q.C. standard 2013
- Would not be accepted by NBCC
- CWTA started to focus on creating an acceptable standard that could be referenced.

CSA S349

S349-19

Certification requirements for manufacturers of metal plate connected wood trusses

Working Group

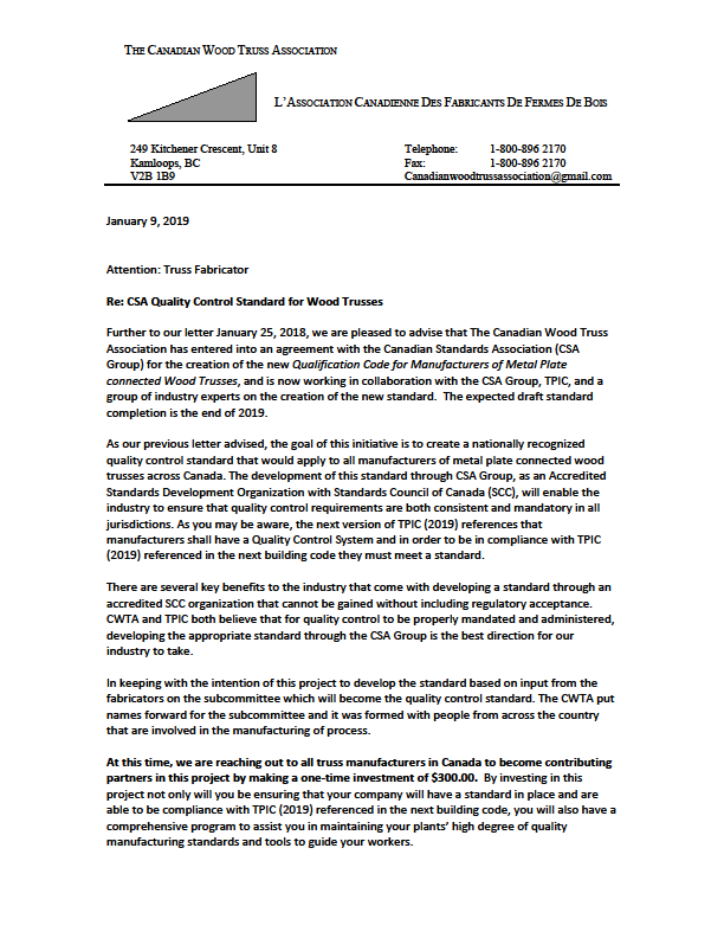
- Bruce McHugh, Eric Popma, Brent Bunting, Darren Foster, Dave Pasolli, Dom Lavoie, Francois Chaurette, J Neels, Kat Crew, Kenneth Koo, Robert Baynit, Steve Boyd.
- Chair Kris Dick

CSA S347

- Ability to be directly referred to in the building code- 2025
- Under CSA 086
- Development paid for by CWTA supported by manufacturers, plate suppliers, grant.

CSA S347

- All manufacturers in Canada have been sent a letter requesting $300 for support of the development of the standard.



THE CANADIAN WOOD TRUSS ASSOCIATION

L'ASSOCIATION CANADIENNE DES FABRICANTS DE FERMES DE BOIS

249 Kitchener Crescent, Unit 8
Kamloops, BC
V2B 1B9

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Canadianwoodtrussassociation@gmail.com

January 9, 2019

Attention: Truss Fabricator

Re: CSA Quality Control Standard for Wood Trusses

Further to our letter January 25, 2018, we are pleased to advise that The Canadian Wood Truss Association has entered into an agreement with the Canadian Standards Association (CSA Group) for the creation of the new *Qualification Code for Manufacturers of Metal Plate connected Wood Trusses*, and is now working in collaboration with the CSA Group, TPIC, and a group of industry experts on the creation of the new standard. The expected draft standard completion is the end of 2019.

As our previous letter advised, the goal of this initiative is to create a nationally recognized quality control standard that would apply to all manufacturers of metal plate connected wood trusses across Canada. The development of this standard through CSA Group, as an Accredited Standards Development Organization with Standards Council of Canada (SCC), will enable the industry to ensure that quality control requirements are both consistent and mandatory in all jurisdictions. As you may be aware, the next version of TPIC (2019) references that manufacturers shall have a Quality Control System and in order to be in compliance with TPIC (2019) referenced in the next building code they must meet a standard.

There are several key benefits to the industry that come with developing a standard through an accredited SCC organization that cannot be gained without including regulatory acceptance. CWTA and TPIC both believe that for quality control to be properly mandated and administered, developing the appropriate standard through the CSA Group is the best direction for our industry to take.

In keeping with the intention of this project to develop the standard based on input from the fabricators on the subcommittee which will become the quality control standard. The CWTA put names forward for the subcommittee and it was formed with people from across the country that are involved in the manufacturing of process.

At this time, we are reaching out to all truss manufacturers in Canada to become contributing partners in this project by making a one-time investment of $300.00. By investing in this project not only will you be ensuring that your company will have a standard in place and are able to be compliance with TPIC (2019) referenced in the next building code, you will also have a comprehensive program to assist you in maintaining your plants' high degree of quality manufacturing standards and tools to guide your workers.

Road Map

Regulatory Requirement

Certifying Body

CSA Standard

Certifying Body

- CB should be an agency having a national mandate.
- Standards Council of Canada (SCC) approved.
- These are **not** non-profits.
- Interested in doing Q.C. for truss plants.
- Have to meet their own qualifications to put their name on the line.

Standard Council of Canada
Accredited Inspection Bodies

- Cdn Group for Approval
- CSA Testing and Certification
- DMS Medical Gas Systems Inc.
- Electrical Safety Authority
- ENEFEN Energy Efficiency Engineering
- Flatland Inspection Services
- IRED Thermal Group
- Lab Test Certification Inc.
- MET Labratories
- MW Biomedical Inspection
- Nemko Canada
- QAI Labratories
- QPS Evaluation Services
- RAE Gas Code Inspections
- RPC
- TUV Rhineland of North America
- Underwriters Laboratories Canada
- Vision Integrity Engineering

Standard Council of Canada
Accredited Product Process and Services

- Air-Conditioning, Heating an Refrigeration Institute
- APA-The Engineered Wood Assoc.
- ASSE International
- Bay Area Compliance Labs
- Cdn General Standards Board
- CSA Group Testing
- Curtis-Straus
- CWB Certification
- DEKRA Certification
- Electrical Safety Authroity
- FM Approvals
- IAPMO
- ICC Evaluation Services
- Intertek Testing Services
- LabTest Certification
- MET Laboratories
- Nembko North America
- NSF International
- NTA Inc.
- OMNI-Test Laboratories
- PFS Corportation
- PricewaterhouseCoopers
- QAI Laboratories
- QPS Evaluation Services
- Safety Equipment Institute
- SGS North America
- TR Arnold Associates
- Trusdail Laboratories
- UL LLC
- Underwriters Laboratories
- Water Quality Assoc.

Truss Manufacturing Certifying Body

The Canadian Wood Truss Association
Association Canadienne des Fabricants de Fermes de Bois

Road Map

Regulatory Requirement

Certifying Body

CSA Standard

Regulatory Body

- In this instance the Authority having Jurisdiction.
- A standard is only effective if it is enforced.

THE CITY OF Edmonton

ONWARD Calgary

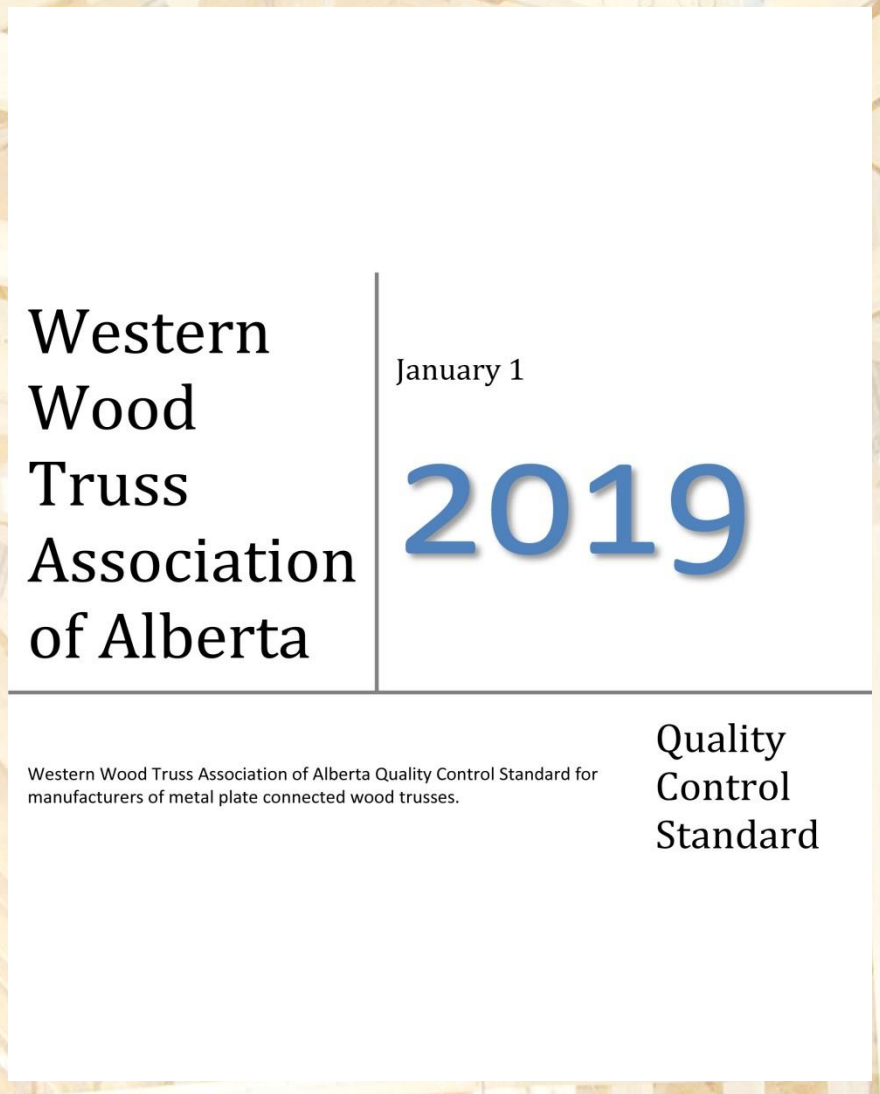
WWTA Quality Control Standard

- Started working on with consultations at the end of 2017
- Q.C. Committee worked on standard during the year.
- Reviewed twice at the WWTA Board level in 2018.
- Transition period of 2019

TPIC 2019

- Remember that TPIC 2019 states manufacturers SHALL have Q.C.
- In Alberta that means in 2020 (Probably)
- Just as important as anything else in TPIC.
- Could be required by a AHJ.

WWTA Quality Control Standard



Western Wood Truss Association of Alberta

January 1

2019

Western Wood Truss Association of Alberta Quality Control Standard for manufacturers of metal plate connected wood trusses.

Quality Control Standard

WWTA Quality Control Standard

• Q.C. Manual	10%
• Q.C. Meetings	10%
• In-Plant Inspections	40%
• Training	5%
• Handling, Storage, Delivery	5%
• Truss Design (optional)	
• Outside Party Inspection	30%

Q.C. Manual-10%

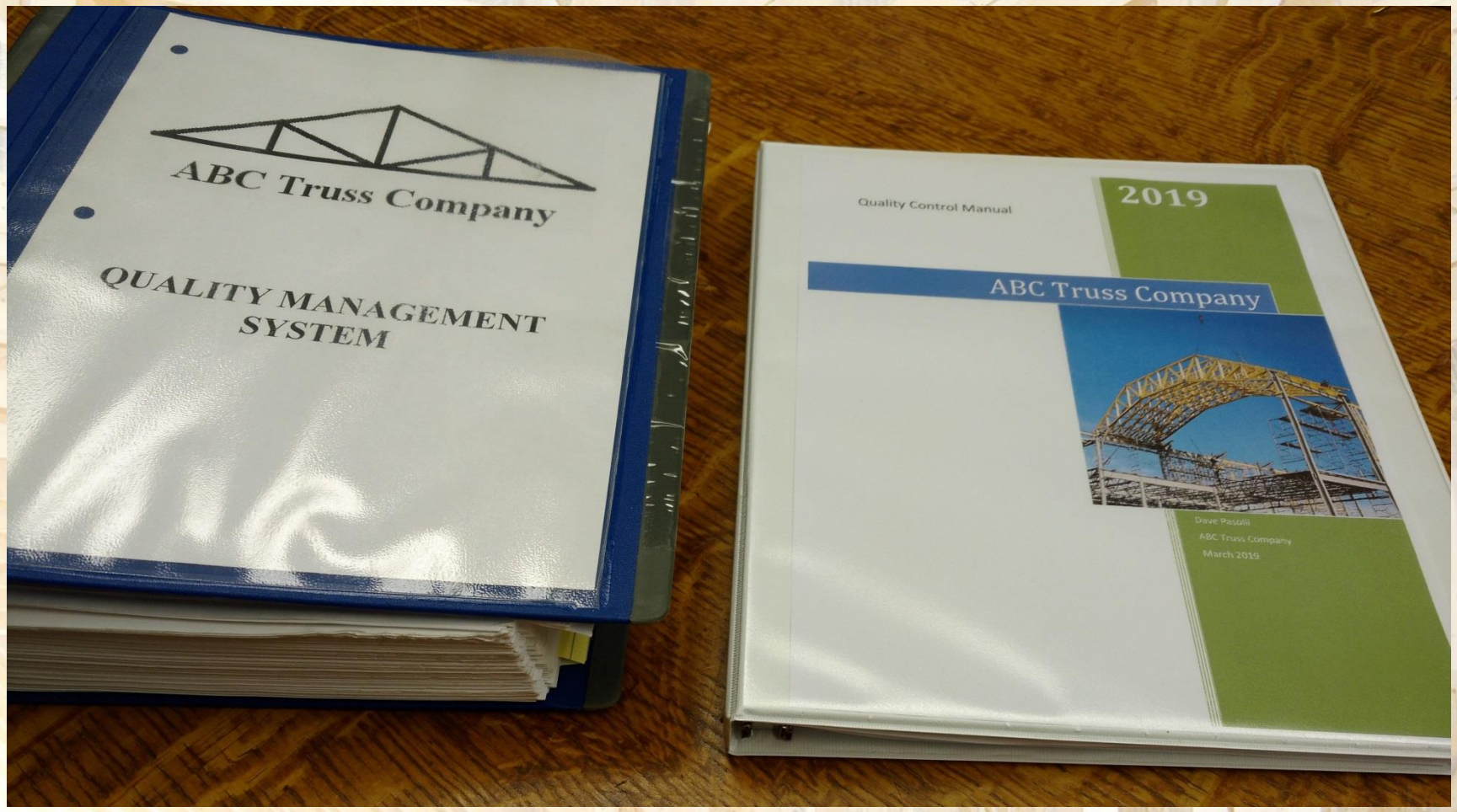
Quality Control Manual

2019

ABC Truss Company

Dave Pasolli
ABC Truss Company
March 2019

½” vs. 3”


ABC Truss Company
QUALITY MANAGEMENT SYSTEM
Quality Control Manual
2019
ABC Truss Company
Dave Pasolli
ABC Truss Company
March 2019

2019 Q.C. Manual

1) Company Info
2) Quality Policies
3) Truss Design
4) Lumber and Metal Connector Plates
5) Manufacturing Tolerances
6) Internal Inspection
7) Work Instructions

2019 Q.C. Manual

- Heavily references Truss Training Online
  - Training Employees
  - Work Instructions
- Can be customized easily
  - Add your own pictures
  - Change size of pictures

Q.C. Meetings-10%

- Regular
- Documentation
- Internal Inspections
- Customer Feedback
- Action Items

In-Plant Inspections-40%

- Frequency
- Documentation
- TPIC Appendix G
- Tools/Paperwork
- Alternative Inspections
- Non-conforming

Why are inspections so important?

- Unlike most other structural products physical testing can’t be done, so we rely on inspections.

Training-5%

- Documentation
- Demonstration
- Follow Policy
- Understand Standards
- Attend Q.C. meetings
- New workers

Handling, Storage, Delivery-5%

- Customer Feedback
- Damage
- Labeling
- Reviewing Packages

Truss Design-Optional

- Correct Software
- Supervision
- Training
- Processes
- Check Lists

Outside Party Review-30%

- Observe main areas of production
- Review internal systems/processes
- Inspect a sample of trusses
- Provide a report

Q.C. Review-Appendix C

In-Plant Inspections (40%)				
	Are inspections completed as per company policy	120		
	Do inspections include the critical criteria including:			
	dimension tolerances	20		
	lumber grade requirements	20		
	plate placement tolerances	20		
	joint gap tolerances	20		
	effective teeth requirements	20		
	labeling of the product	20		
	Are both sides of the truss inspected	50		
	Are the proper tools available for inspecting trusses	20		
	Is there a method for inspecting off-set plate placements	40		
	Are records of inspections filed and reviewed properly	30		
	Is there a process to correct non-conforming product during inspections	20		
		400		

Implementation

- Approve the Standard as recommended by the Board of Directors later at the AGM.
- 2019 Conduct review of each member and provide feedback for compliance.
- Comply with 2020 A.B.C. reference to TPIC.
- Easy compliance with 2025 NBCC and CSA requirement.

USB Flash Drive

- WWTA Alberta Q.C. Standard
- Q.C. Manual Template