

**CORRUGATED STEEL PIPE INSTITUTE  
TECHNICAL ADVISORY COMMITTEE  
Memorandum of Meeting**

*11:45 A.M. Friday June 13<sup>th</sup>, 2016 – St. Andrews-by-the Sea, NB*

**Present:**

Kevin Williams (Chair)	Atlantic	Mike Mounts	Valfilm
Byron Nelson	Leland	Bruce Matheson	Frontier
Dave Watson	Leland	Chris Groot	ES Hubbell
Randy McDonald	Armtec	Ray Wilcock	CSPI

**Absent:**

Lyndsay Dokas	Armtec	Ian Berry	Warner
Kamran Derayeh	ArcelorMittal	Shane Setter	Ironside
Nick Spence	Atlantic	Dave Penny	CSPI

**Guests:**

Mike Wilson	Atlantic	Janine Yetke	Armtec
Stephen MacKinnon	Atlantic	John Tran	ArcelorMittal
Dawn Nigro	Armtec		

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**1. Welcome and Opening Remarks**

Kevin Williams opened the meeting at 11:45am. Attendance was taken and is recorded above.

**2. Review Minutes from May 13<sup>th</sup>, 2016**

Minutes were reviewed and a motion for approval was made by **Dave Watson**, second by **Chris Groot**.

**3. Short Term Items to Close Out**

**a) Tech Bulletin – Polymer Laminate CSP Guideline**

Sign off complete.

The committee agreed to post this bulletin in the members section only. Randy suggested section 6 – Quality Control and Repair be published and made public. **Ray will review wording and incorporate this into Technical Bulletin 2 – Field Repair of Polymer Laminate Barrier Coating. Board members agreed to share this bulletin with NCSPA members.**

**b) Tech Bulletin 18 – Manufacturing CSP Protocol Updates**

Sign off complete.

**It was agreed to post this document on the public section of the website.**

**c) Tech Bulletin 19 – Manufacturing Structural Plate Protocol Updates**

Sign off complete.

It was agreed to post this document on the public section of the website.

**d) Winter Construction Risks Guideline**

Randy is working on the AASHTO graph. Once complete, Glassroot will professionalize the document and post to the public section of the website. An E-Blast will be sent to all contacts in the data base.

**e) Bolts & Nut Research**

**- MTQ (salt spray and abrasion)**

**- Leland (Kesternich)**

MTQ reported that abrasion tests are nearing completion and salt spray just passed 1000 hours. Once salt spray is completed, estimated at mid to end of June, then it will take a month to review and report. Thus, we are most likely looking at end of July. Byron reported that there was an issue with the lab who performs the Kesternich testing and that new samples would be required. Kevin has worked with Leland to develop a Kesternich testing specification.

Byron stated that there was some confusion with the scribed bolts for Kesternich testing. Kevin will touch base with Juan to clarify.

Action: Ray will follow up with MTQ by early July for an update.

Action: Kevin will supply Ray with Kesternich testing specification for Ray to develop fastener testing specification documentation.

**4. Long Term Items**

**a) ASTM A742 Review & Testing – Polymer Laminated Steel**

As per the conference call held on April 21<sup>st</sup> it was agreed to proceed with the following tests:

- Adhesion in ASTM A742 (mandrel bend);
- Adhesion in ASTM D3359
- Boiling water adhesion test
- Salt spray.

Eight samples of each sampled coil are required, six 4" x 4" (or 2" x 8"), and two 2" x 8".

Action: Kevin & Randy to supply coupons along with mill and laminate certificates to Ray by mid-July who will coordinate with Ian for testing.

**b) Metallic CSP Bulletin (Aluminized Type II)**

Future item to be scheduled

**5. Ongoing Items**

**a) AISI – Funding Requests**

**2017 Projects**

1. Polymer Laminated Steel	10,000
2. CSA Certification Programs	10,000
3. Bolt Research & Testing	5,000
4. University Outreach Program	5,000
5. Aluminized Zinc coated project in 3 Provinces	5,000

**Proposed**

Thus far \$35,000

Ideas presented were as follows:

- CSA G401 rewrite for 2019 / 2020 – start building a war chest
- Rerolled Ends – elimination
- Testing of Water Tight Joints in the field
- Metallic Coated Technical Bulletin
- Develop an environmental product declaration for CSP (<http://www.environdec.com/en/What-is-an-EPD/>). It is expected information on the recycled content and LEED points for a CSP stormwater detention could be standardized.
- Develop an environmental product declaration for structural plate
- John suggested talking to Kamran and Steve Fox.
- Complete a life cycle assessment comparing plastic, concrete and steel stormwater detention systems

**b) Regional Updates – Certification Programs**

Region	CSP Protocol	Structural Plate Protocol	Comments
Newfoundland	Presentation made on August 11 <sup>th</sup>	Submitted Polymer Plate Spec.	Met with Doug Power and John Morrissey on March 18 <sup>th</sup> . Spec changes to be submitted – 3 <sup>rd</sup> Q.
PEI	Spoke with Darrell Evans at TAC in Sept 2015.		Followed up in April 2016 at TAC Spring meeting in Ottawa. Future meeting to be scheduled.
Nova Scotia	Presentation made on August 12 <sup>th</sup>		Changes Specs every 2 years. Download section 12 and send changes in 3rd Q 2016 to Will Crocker

New Brunswick	Attempted a number of times through Rob Simpson. Work through Armtec & AIL		No meeting planned yet.
Quebec	Using 2007 with no CSPI reference. <a href="#">Sent Gerard OGPDG.</a>	Presentation made on Sept 14 <sup>th</sup>	<a href="#">Follow up in 2016 with Gerard Desgagne – this summer</a>
Ontario	Using 2007 with no CSPI reference. <a href="#">Webinar held with Art Groenveld. St. Catharines visit on January 18<sup>th</sup>.</a>	Using 2014 with CSPI reference. Target Tony Merlo for all structural plate specifications.	<a href="#">Continue dialogue with visits to St. Catharines &amp; Kingston. Set up Buried Bridge presentation.</a>
Manitoba	Presentation made on Sept 22 <sup>nd</sup>		<a href="#">Follow up with Ruth Eden in 2016</a>
Saskatchewan	Presentation on Sept 21 <sup>st</sup> . Polymer laminated edges – issue?	Height of Cover Tables need updating – download from Website. <a href="#">Met with Howard Yea on March 1<sup>st</sup>.</a>	<a href="#">Meet with Doug Ross in 2016 – site visits, water testing, certification for 2016</a>
Alberta	Presentation on August 4 <sup>th</sup> and Kleskun Hills visit. <a href="#">Met on December 15<sup>th</sup> and presented certification. Issues being resolved.</a>	<a href="#">Set up buried bridge presentation with Alta Trans, City of Calgary and City of Edmonton.</a>	<a href="#">Met on Monday, March 21<sup>st</sup> with Clayton Matwychuk and Joe Filice. Asked to submit changes to Section 118. 2<sup>nd</sup> Q.</a>
B.C.	Presentation on August 7 <sup>th</sup> . Very positive towards updating specifications and certification program. Updated section 320 & 303 and submitted in September.		<a href="#">Met on Thursday, March 24<sup>th</sup>. Under review – 3 month process.</a>

**Action: At a previous meeting, Stephen MacKinnon suggested a matrix which includes all materials (concrete & HDPE). Ray has started research on Provincial specs and will present by the end of 2016.**

**c) ASTM**

Nothing to report

**d) NCSPA**

Discussion took place pertaining to the polymer coated and bolt testing program being driven by Lane & Contech. Randy expressed concerns that it may be fast tracked and could undo what we have done in Canada. Randy will follow up with Ian to clarify his direction with regards to providing samples.

**Action: For future discussion**

**e) TRB**

Kevin reminded all that the design buried bridge seminar will take place on Thursday, June 23<sup>rd</sup>.

**f) CSA**

The CHBDC spring meeting was completed.

**g) AREMA**

Nothing to report

At a previous meeting - Phil Carroll, who is a member of the culvert committee, gave an update. This committee is presently updating culvert maintenance standards. The next meeting is in August in Washington DC. Phil suggested that CSPI hold a webinar on maintenance.

**h) CSCC**

Next board meeting is scheduled for June 30<sup>th</sup>. The steel narrative is nearing completion.

**6. Discussion / New Business (from past meetings)**

a) Ideas for new Technical Bulletins

- Water resistance (membranes & seam sealants) technical bulletin
- Field Inspection (build on NCSPA & NCHRP)
- Invert reline guideline
- Buried Bridge guideline

b) Future Research projects

- Research alternate polymer laminates

c) TAC focus for 2017 – new ideas

1. Kamran suggested CSPI put together a table by diameter outlining the benefits of CSP versus HDPE versus Concrete. Ray will prepare a table for discussion for a future meeting.
2. Dave is presently experimenting joining two helical pipes using a corrugated coupler and some Denso material for the purpose of eliminating rerolled ends. Kevin asked about the history of couplers and for a presentation to be made in the fall. Dave will include this in his talk.
3. Perforated pipe – presently there is nothing in CSA G401 pertaining to touching up the holes. For holes that are blown using a plasma torch, dry galvanized epoxy paint is used. Ray will touch base with Jim Evans of AK and Mike McGough of NCSPA to see what if any technical information exists. This will be placed in the CSA G401 future change file.

**7. Adjourn & Next Meeting**

The meeting was adjourned at 1:35pm. Next meeting is scheduled by the Chair.

Secretary  
Ray Wilcock