



## STRATEGIC PLANNING SESSION Memorandum of Meeting

8:30 A.M. to 10:00 A.M. EST, Tuesday, November 15<sup>th</sup>, 2022  
Homewood Suites by Hilton, Cambridge ON

### **Present:**

Sam Mitra, Chair	Armtec	Mike Williamson	Hubb-Cap
Liz Bouchard	Armtec	David Newbigging	AMD
Scott MacRae	Armtec	Kamran Derayeh	AMD
Jason Sherwood	Atlantic	Marcia Stinson	AMD
Terry Dunn	Atlantic	Lucas Cooper	AMD
Paul Proctor	Atlantic	Dave Watson	Leland
Greg Wilkinson	Atlantic	Todd Gray	ACI
Pat Mayne	Atlantic	Mike Mounts	Valgroup
Bruce Matheson	Frontier	Ray Wilcock	CSPI
Ian Kalverda	Hubb-Cap		

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### **1. AISI Antitrust Guidelines - Ray**

Ray presented the AISI Antitrust Guidelines that are in effect for all CSPI meetings.

### **2. Welcome and Opening Remarks – Sam**

Sam opened the meeting and welcomed all members. Attendance was taken and is recorded above.

### **3. Review Minutes from June 20<sup>th</sup>, 2022, and Approve**

Minutes were reviewed and accepted. A motion for approval was made by **Terry Dunn**, second by **Paul Proctor** and was carried unanimously.

Paul – charts galvanized CSP for NS & PEI s/b No – will be adjusted

### **4. Strategic Plan Overview**

#### **a) Market focus – DOT, key municipalities & consultants**

No discussion.

#### **b) Educate colleges and university students**

Discussion

- Terry – send a listing to all members for update, universities, colleges, and professors.
- Start a listing of who includes soil steel structures in their curriculum.

### c) Review top 10 reasons – why steel?

Discussion:

- Sustainability - Add “Qualified” Local Backfill
- Strength – add 381 by 140 corrugation
- Light weight 900 m
- Durability – space between mm
- Cost effective – Steel Arch (DCSP), space between m
- Include bullet points for all
- Convenient – “available” consistency, remove Lower carbon footprint
- Resilient – add Predictable flexibility
- Resilient – remove “rather than crushing or crumbling”
- Resilient – Improved performance with seismic forces
- Change 4 & 6 to 1 & 2

## **5. Key Performance Indicators (KPI)**

### **a) DOT update**

<b><u>NL</u></b>	Latest update in standards – March 2022. Reviewed standards for changes. <a href="#">Added Andre Granville to CSA G401 Committee.</a>
<b><u>PEI</u></b>	Recommendations sent for section 1338 – Corrugated Metal Structures. Inclusion of polymer coated plate, NZF3000 bolts and edits on reference standards and installation. <a href="#">Added Neil Lawless to CSA G401 Committee.</a>
<b><u>NB</u></b>	Ahmed Dassouki, Director – Design Branch – contacted CSPI following the SWM webinar to ensure all NB staff are included in future updates. <a href="#">Meeting to be scheduled in 2023 to discuss standards and updates to G401.</a>
<b><u>NS</u></b>	<a href="#">Added Justin Clarke to CSA G401 Committee.</a>
<b><u>MTQ</u></b>	Drafted recommendations for Tome III – polymer 75 years-service life. Translation of polymer technical bulletin in French completed for member and ministry use. <a href="#">Added Liana Stepan to CSA G401 Committee.</a>
<b><u>MTO</u></b>	Met with Walter Kenedi, new Chief Bridge Engineer. Agreed to start with review of Culvert & Structural Plate Planning guidelines and make recommendations in 2023. <a href="#">Added James Combe to CSA G401 Committee.</a>
<b><u>MIT</u></b>	Total lack of response from new leadership despite numerous attempts. <a href="#">Will set up future meeting in 2023.</a>
<b><u>SK</u></b>	<a href="#">Added Allan Hegedus &amp; Doug Ross to CSA G401 Committee.</a>

**AT** Accepted CSPI recommendation on section 18 “*Minimum Invert Length of Sloped End Section*”. Members will be able to use the email from AT for clarification until the standard gets updated in 2025. Added Rishi Adhikari to CSA G401 Committee.

**BCMOT** Meeting held with BCMOT staff on July 27th. Phil Carroll and Stuart Murphy of Atlantic and Ron Prychitko of Armtec attended. Discussion on BC MOTI Supplement for CHBDC S6-19 - Section 7. BCMOT accepted several CSPI's submission and will have CSPI review the proprietary guidelines next.

**NWT, YK, NU** To be reviewed in 2023.

Past discussion – start in 2023

Galvalume discussion      It was agreed to introduce the material (1.6 and 2.0 mm) to DOTs for future consideration in standards. Start in the Eastern provinces.

### **DOT Table**

Owner	Gal. CSP	AL2 CSP	PL CSP	Gal. SP	TP SP	HDPE	RCP	Certification	Value Eng.
NL	No	Yes	YES	Yes	YES	<600mm	Yes	YES	Yes
PEI	No	YES	No	YES	No	Yes	Yes	Submitted	No
NS	No	Yes	No	Yes	YES	Yes	Yes	Submitted	Yes
NB	No	Yes	No	Yes	No	Yes	Yes	Submitted	Yes
QC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes – CSP	Yes
ON	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MB	Yes	No	No	Yes	No	?	Yes	No	Yes
SK	Yes	YES	YES	Yes	YES	Yes	Yes	Yes	Yes
AB	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
BC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NT									
YT									
NU									

## **b) Municipality & Consultant Update**

### **City Update**

- Calgary AB** Added May Cayanan to CSA G401 Committee.
- Pembroke ON** Inquiry on relining full peripheral and inverts only. Supplied technical bulletins along with “how to” if they decide on just doing the invert.
- Edmonton AB** Reached out asking about mechanical properties of culverts 50 -60 years old. Checked several resources and with colleagues who have been in the industry for a long time. All agreed and responded that properties were the same as they are today.

### **Consultant Update**

#### **January**

- ISL AB Discussed invert repair methods / full relines for Hwy 19 deep ravine culvert repair. Interested in polymer coated structural plate invert method.

#### **February**

- MEA ON Updated related standards to CSP (CSA, ASTM, etc.)
- WSP AB Contacted CSPI concerning Plant Certification Technical Bulletins. Contractor attempted to bring in CSP USA made from a non-certified manufacturer. Resolved in favour.

#### **March**

- ISL AB Contacted CSPI concerning repair methods for damage to newly installed galvanized CSP.
- R.V. Anderson ON Contacted CSPI with regards to identifying corrugation profile for a galvanized structural plate installed in 1965 in Thorold ON. Pipe is in exceptionally good condition.
- Vern Lange BC Contacted CSPI for BC member information.

#### **May**

- Klohn Crippen Berger BC Supplied information on an old CSPI standard 501, previously used before CSA G401. Rehab Opportunity.

#### **June**

- Stonecroft Engineering BC Ordered 4 water test kits. Will be doing testing throughout BC at multiple sites.
- JM2S Limited ON Contacted CSPI for alternatives to relining inverts only. Supplied information on using polymer coated SP.

**July**

Added to CSA G401 Committee

William Bartlett  
Brad Stirling  
Cale LeishmanNorthwest Consulting  
Klohn Crippen Berger  
ISL Engineering**August**

Associated Engineering AB Inquiry on height of covers associated with backfilling using native soil. Referred AE to Handbook, recommended backfill material, compaction requirements and they should seek expertise from a geotechnical engineer.

Northlink Supply BC

Inquiry on what type of jacks to use for supporting CSP on relines. Supplied technical bulletins and photos of relines, which use a variety of materials.

**Municipalities Table**

Municipality	Gal. CSP	AL2 CSP	PL CSP	HDPE/ PVC	RCP	Value Eng.
Vancouver Storm Sewer Culverts	No No	No No	No No	? ?	Yes Yes	
Langley	Follow Van					
Victoria						
Edmonton Storm Sewer Culverts	No Yes	No No	No No	PVC PVC	Yes Yes	
Calgary Storm Sewer* Culverts	Yes Yes	Yes No	Yes No	PVC & PE App. Req.	Yes No	
Saskatoon						
Regina Storm Sewer Culverts	No Yes	No Yes	No Yes	PVC<450mm HDPE	? Yes	
Winnipeg	Pending	No	No	PVC<900mm	Yes	
Thunder Bay Storm Sewer Culverts	No No	No Yes	No No	PVC<375mm HDP<900mm	Yes No	
Sudbury						
Toronto Storm Sewer Culvert	No	No	No	PVC	Yes	
Hamilton Storm Sewer Culvert	No Yes	No Yes	No Yes	PVC HDPE	Yes Yes	

London	No	No	No	Yes	Yes	
Windsor Storm Sewer Culverts	Yes No	Yes No	Yes No	Yes PVC & PE	Yes Yes	
Reg. Waterloo Storm Sewer Culverts	No No	No No	No No	PVC Yes<600mm	Yes Yes	
St. Catharines Storm Sewer Culverts	No Yes	No Yes	No Yes	Yes Yes	Yes Yes	
Kingston	No	No	No	PVC	Yes	
Ottawa						
Oshawa						
Montreal						
Sherbrooke						
Quebec City						
Trois- Rivieres						
Saguenay						
Fredericton Storm Sewer Culverts	No No	No No	No No	Yes No	Yes Yes	
Moncton						
Halifax Storm Sewer Culverts	No No	No No	No No	Yes HDPE/PE	Yes Yes	
St. Johns	No	No	No	Yes	Yes	

\* Mains only, requires approval from Water Resources on a case-by-case basis

**c) Number of Students/Institutions presented in last 12 months**

<b><u>Date</u></b>	<b><u>University / College</u></b>	<b><u># of Students</u></b>
Nov 24 <sup>th</sup>	OGRA Storm Sewer Mississauga ON	42
Jan 19 <sup>th</sup>	Lakehead University, Thunder Bay	14
Jan 26 <sup>th</sup>	York University, Toronto	63
Feb 8 <sup>th</sup>	Niagara College, Niagara Falls	25
Mar 10 <sup>th</sup>	RMC, Kingston ON	20
Mar 21 <sup>st</sup>	Sask Polytech SK	25
Mar 23 <sup>rd</sup>	U of Sask SK	50
Apr 4 <sup>th</sup>	U of Victoria BC	40
Apr 5 <sup>th</sup>	U of Guelph ON	25

Special thanks to Lisa Ryland (Armtec) and Phil Carrol (Atlantic) for lecturing at U of Sask & U of Victoria, respectfully.

**9 Guest Lectures**

**304 Students**

- Members to talk to their reps to see who is interested in speaking.

#### **6. SWAT Team Initiative – Storm Sewer Market**

- Objective: Develop a strategy to penetrate municipal storm sewer market.
- 17 Members on the Team
- 5 Meetings held in the last 12 months

#### **Last Meeting – September 30th, 2022**

- Stan gave a brief overview on going green with the elimination of BOF steel making – target end of 2028. This will have a future positive impact on CSP's carbon footprint.
- Mike Mounts gave an overview of the testing done on lighter zinc and lighter polymer coating (from 10mil to 5 mil) which will benefit manufacturing members in the storm sewer market. Testing is complete and posted on the NCSAPA website. All tests passed in accordance with ASTM A742, subject to abrasion conditions.
- MarMac coupling tests continue joining two non-rolled pipes, achieving a 10.8 psi at Oregon State University. This is required for the storm sewer market in most cities. Lisa stated that a customer is using a MarMac coupler connecting one rolled end to a helical end.
- Promote the Handbook and downloading capabilities
- Please send Ray any provincial associations calling for speakers / papers.
- Set up webinars for Quebec in French for later this year (SRP, Carbon Footprint). Work with Tony and Stephan Martineau (AIL).

#### **7. Discussion / New Business / Old Business**


No discussion

#### **8. Strategic Plan Adjustments**


None. All agreed to stay the course.

#### **9. Adjourn & Next Meeting**

The meeting was adjourned at **10:00 am** with a motion from **Bruce Matheson**, second by **Dave Watson** and was carried unanimously. The next meeting will be held on June 5<sup>th</sup>, 2023, in Quebec City, QC at the Auberge Saint-Antoine.



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Sam Mitra  
Chair



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Ray Wilcock  
Executive Director