

THE TUNNELLING ASSOCIATION OF CANADA'S  
2022 CONFERENCE

# TUNNELLING<sup>®</sup>

FOR THE FUTURE

SUSTAINABLE



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NOVEMBER 2 - NOVEMBER 4  
FAIRMONT HOTEL VANCOUVER  
VANCOUVER, BC

[WWW.TAC2022.CA](http://WWW.TAC2022.CA)

# 2022 ANNUAL GENERAL MEETING

Wednesday, November 2, 2022



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**Bruce Downing**

President  
Tunnelling Association of Canada



# Agenda

ITEM	PRESENTER
Welcome and Introductions	Bruce Downing
Acceptance of the 2021 AGM Minutes (motion)	Bruce Downing
President's Report	Bruce Downing
Membership Report 2022 and Targets for 2023	Dan Ifrim
Treasurer's Report	Michelle Richards
2023 TAC Board of Directors (motion)	Erik Eberhardt
Regional Reports	Andre Rancourt & Jason Mann
Young Members Report	Nichole Boulton
WTC 2026 Update	Andre Rancourt
By-law Review Report	Andre Solecki
Tunnelling Magazine Update	Connor Langford
Other Business	Bruce Downing

Please stay following the AGM for a presentation by the EDI Committee



# Minutes of the 2021 AGM

*The draft minutes of the October 19, 2021 Tunnelling Association of Canada Annual General Meeting are posted on the TAC website at [https://www.tunnelcanada.ca/agm\\_minutes.php](https://www.tunnelcanada.ca/agm_minutes.php)*

**Motion:** *to approve the minutes from the 2021 AGM as presented.*



# President's Report

## A Year of Increasing Activity

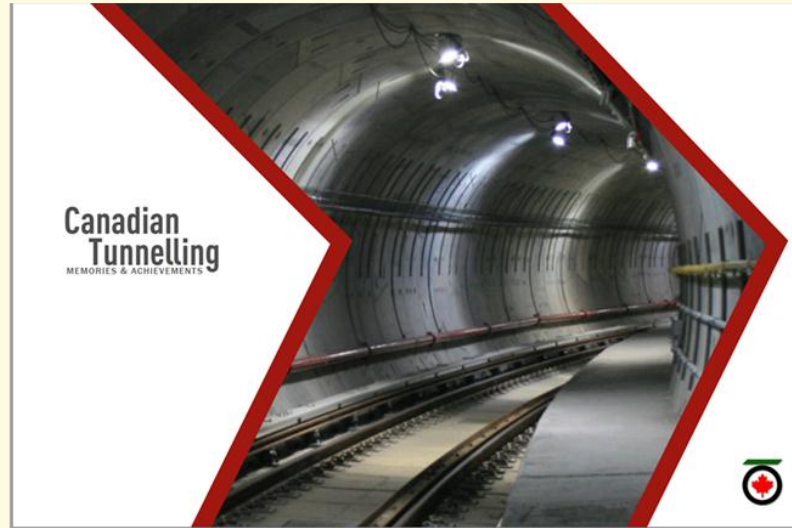
- TAC 2022 – On the heels of TAC2020-one
- Chapter and TAC-ym Activity – long awaited return to in-person events
- Preparation of Proposal to Host WTC2026
- Several new initiatives
- Transitioned from Gibson Group Management to Redstone Agency





# President's Report

## Completed



## In Progress



## In Progress

- A register/database of Canadian tunnels and tunnelling projects (under construction, planned, etc.)
- Other suggestions from membership



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# President's Report

## ITA, Nordic Forum, Americas Forum

- TAC has helped lead a series of reforms to ITA governance, influencing the formation of a Governance Council tasked with conducting organization reviews and changes to how WTC host cities are selected, and events organized.
- Under these new rules, TAC has submitted an EOI for WTC 2026 to be hosted in Montreal. EOI accepted by ITA and full proposal is now under preparation.
- Previous TAC experience – highly successful WTC 2010 (Vancouver) and WTC 1989 (Toronto)
- The next WTCs: 2023 Athens, 2024 Shenzhen, 2025 Stockholm.
- The ITA continues to remain active with key initiatives like the Working Groups. TAC members are invited to get involved and should contact us if they are interested in being a TAC representative for a particular ITA Working Group.





# President's Report

## Engineering Institute of Canada

- TAC is a member society of the Engineering Institute of Canada (EIC). The EIC is a federation of 14 technical/engineering societies.
- As a member, TAC is eligible to nominate members for EIC awards and honours, such as Fellows of the EIC and the Julian C. Smith Medal and K.Y. Lo Medal recognizing significant engineering contributions to Canada and internationally, respectively.
- TAC's second nominee for the FEIC honour, Brian Garrod, was selected by the EIC for 2021.
- The EIC also participates in the Bacon and Eggheads breakfast talk series, which focuses on connecting Parliamentarians with experts in science and engineering.



# President's Report

## Officers

Bruce Downing – President  
Erik Eberhardt – Immediate Past President  
Jason Mann – Vice President West  
Andre Rancourt – Vice President East  
Michelle Richards – Treasurer  
Andre Solecki – Secretary

## Key Redstone Staff



**Sharvari Katekar**  
Membership & Marketing  
[info@tunnelcanada.ca](mailto:info@tunnelcanada.ca)



**Erika Nunes**  
Account Lead  
[admin@tunnelcanada.ca](mailto:admin@tunnelcanada.ca)



**Natalie Wallace**  
Redstone Director  
[natalie@redstoneagency.ca](mailto:natalie@redstoneagency.ca)



**Melody Done**  
Accountant  
[melody@redstoneagency.ca](mailto:melody@redstoneagency.ca)



**Ashley Bain**  
Conference Manager  
[conference@tac2022.ca](mailto:conference@tac2022.ca)

## Directors

Stephanie Robillard – Director, British Columbia  
Mohammed Al-Bataineh – Director, Alberta  
Jason Mann – Director, Manitoba and Prairies  
Dan Ifrim – Director, Ontario  
Jean Habimana – Director, Quebec and Maritimes

Nichole Boulton – Director  
Andrew Caruana – Director  
Mark Diederichs – Director  
Connor Langford – Director  
Boro Lukajic – Director  
Leila Sunderani – Director  
Seamus Tynan – Director



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# Membership Report

## *TAC Membership Update*

Presented by: Dan Ifrim, Director, Ontario Chapter

Contributions by: Sharvari Katekar, Redstone



# Membership Report

## Current 2022 Membership

As of Oct 3rd, 2022, total TAC membership included 521 individuals and firms broken down as follows (with a comparison to the figures at last year's AGM):

- ❑ Individual Members: 342+50\*=392 (266) increase of 126
- ❑ Corporate Members: 61+10\*=71 (66) increase of 5
- ❑ Student Members: 42+1\*=43 (37) increase of 6
- ❑ Retired Members: 12+3\*=15 (15) no change

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❑ TOTAL: 457+64\*=521 (386) total increase of 135

\*International Members

In 2021, total membership was 386 – our current count of 521 represents about 35% year over year decrease.

As anticipated by last year (following 2020+1 Conference in Toronto), TAC Corporate membership continued to increase by a lot more than the planned 6% increase.



# Membership Report

Below table represents the membership growth from 2021 to 2022 and proposed 2023 (excludes international members).

**In 2023, the goal is to sustain current membership and increase the total membership to over 550, with focus on general Student Membership and general membership in Alberta, Manitoba & Prairies, Quebec & Atlantic chapters.**

Chapter	2021		2022		2023	
	Nr.	%	Nr.	%	Nr.	%
Ontario	220	64.0%	284	62.1%	290	53.7%
British Columbia	77	22.4%	108	23.6%	133	24.1%
Quebec & Atlantic	23	6.7%	36	7.9%	60	11.1%
Alberta	16	4.7%	20	4.4%	40	7.4%
Manitoba & Prairies	8	2.3%	9	2.0%	20	3.7%
<b>Total Canada</b>	<b>344</b>	<b>100%</b>	<b>457</b>	<b>100%</b>	<b>540</b>	<b>100%</b>



# Membership Report

## MEMBERSHIP BENEFITS

### Individual membership:

- ☐ Subscription (six issues annually) to *Tunnelling Journal / Canadian Tunnelling*, TAC's new magazine, developed and written by TAC and dedicated to promoting and advancing the tunnelling industry in Canada.
- ☐ Access to TAC conference proceedings and preferred member prices for the 2023 TAC Conference in Toronto.
- ☐ Access to electronic documents from other conferences and workshops sponsored by TAC
- ☐ Access to local chapter events at preferred TAC member prices
- ☐ Regular TAC and chapter E-News on society updates/events and news of other association tunnelling events, such as the World Tunnel Congress

### Corporate membership:

- ☐ Includes the above benefits (for one individual) plus:
- ☐ Logo and hyperlink to firm from the Corporate Members page on the TAC website
- ☐ Recognition of corporate membership at least once annually in *Tunnelling Journal / Canadian Tunnelling* and complementary subscription.
- ☐ Dedicated financial support for TACym events





# Membership Report

**Membership fees for 2023 will remain unchanged:**  
(prices do not include applicable taxes)

Membership Type	Price
Corporate Member:	\$700.00
Individual Member:	\$100.00
Retired Member:	\$30.00
Student Member:	\$12.50



# Treasurer's Report

Presented by: Michelle Richards

## Assets

		As at December 31,	
Current Assets		<u>2021</u>	<u>2020</u>
	Cash and Short Term	\$333,646	\$411,593
	Accounts Receivable	\$136,074	-
	Prepaid Expenses	\$5,000	\$12,345
	Total Assets	<u>\$474,720</u>	<u>\$423,938</u>

## Liabilities and Accumulated Surplus

Current Liabilities			
	Accounts Payable and Accrued Liabilities	\$9,501	\$10,052
	Unearned Revenue	\$36,491	\$14,462
	Total Liabilities	<u>\$45,992</u>	<u>\$24,514</u>
Accumulated Surplus		\$428,728	\$399,424
	Total Liabilities and Accumulated Surplus	<u>\$474,720</u>	<u>\$423,938</u>



# Treasurer's Report

## Statement of Operations

For the year ended December 31,

	<u>2021</u>	<u>2020</u>
Revenues		
Conference and Workshop Revenues	\$125,828	\$-
Corporate Membership Fees	\$34,000	\$29,000
Individual Membership Fees	\$20,288	\$22,476
Sponsorships	\$13,170	\$6,000
Chapter Event Revenues	\$2,970	\$1,095
Interest	\$2,125	\$3,359
	<b>\$198,381</b>	<b>\$61,930</b>
Expenses		
History Book Project	\$83,372	\$3,000
Professional Fees	\$30,892	\$28,869
Scholarships and Awards	\$30,887	\$26,266
National Office Overhead	\$9,723	\$13,215
Chapter and Other Events	\$7,537	\$5,240
Tunnelling Magazine	\$6,666	\$-
	<b>\$169,077</b>	<b>\$76,590</b>
Excess/(Deficiency) of Revenues over Expenses	\$29,304	(\$14,660)
Accumulated Surplus, Beginning of Year	\$399,424	\$414,084
Accumulated Surplus, End of Year	<b>\$428,728</b>	<b>\$399,424</b>



# Treasurer's Report

***Motion:** to approve the 2021 Year End Financial Statements as presented*

***Motion:** to approve Bob Adam, CPA, as the auditor for the 2022 TAC fiscal year*



# 2022 Forecast

	2022 Jan-Dec Budget (Approved)	2022 Year-To-Date Actuals	2022 Year-end Forecast
Membership Dues	\$ 79,000	\$ 90,560	\$ 90,560
Investment/Other Revenue	\$ 4,000	\$ 316	\$ 430
TAC Conference Revenue	\$ 375,425	\$ 455,689	\$ 500,000
Chapter and Other Events	\$ 2,250	\$ 586	\$ 1,500
TAC History Book - Sponsorship, Sales and Art Prints	\$ -	\$ -	\$ -
	<b>\$ 460,675</b>	<b>\$ 547,151</b>	<b>\$ 592,490</b>
TAC Administration (Contract services)	\$ 40,000	\$ 64,466	\$ 80,500
TAC Conference Expenses	\$ 317,867	\$ 81,500	\$ 317,867
ITA and EIC Membership	\$ 3,750	\$ 3,273	\$ 3,273
ITA Delegate travel	\$ 4,000	\$ -	\$ -
Website	\$ 5,000	\$ 1,953	\$ 5,000
Board and Chapter Exec Meetings	\$ 1,200	\$ -	\$ 1,200
Office (Supplies, Telephone, etc)	\$ 750	\$ 1,510	\$ 1,510
Promotional Materials	\$ 1,500	\$ -	\$ 1,500
Books, Subscriptions, Postage, Mailing Travelling Expenses	\$ 1,850	\$ 2,267	\$ 2,267
Bank Charges	\$ 600	\$ 602	\$ 602
Merchant fees	\$ 2,500	\$ 4,569	\$ 4,569
TAC Scholarships	\$ 10,000	\$ 8,000	\$ 10,000
Other Travel	\$ 1,500	\$ -	\$ 1,500
TAC Awards	\$ 4,000	\$ 702	\$ 4,000
Awards Video Production	\$ 12,000	\$ 15,416	\$ 15,416
Chapter and Other Events	\$ 17,300	\$ 6,617	\$ 17,300
Young Members	\$ 1,500	\$ -	\$ 1,500
Professional Services (audit)	\$ 6,000	\$ 5,600	\$ 6,000
Miscellaneous	\$ 250	\$ 3,654	\$ 3,654
Special Projects - TAC Commemorative Book	\$ 3,000	\$ -	\$ 31,800
Special Projects - Canadian Tunnelling Pilot Project	\$ 14,000	\$ 7,872	\$ 16,896
	<b>\$ 448,567</b>	<b>\$ 207,999</b>	<b>\$ 526,353</b>
	<b>\$ 12,108</b>	<b>\$ 339,151</b>	<b>\$ 66,137</b>



# 2023 Budget

2022 Budget and Forecast Year End, and Approved 2023 Budget				
REVENUE	Budget 2022	2022 Forecast	2023 Budget	% Chg 2022 & 2023 budget
Member Fees	30,000.00	41,560.00	40,000.00	33%
Corporate Membership	49,000.00	49,000.00	45,000.00	-8%
Investment Income	4,000.00	430.00	13,796.63	245%
TAC Conference 2022	375,425.00	500,000.00	-	-100%
TAC Workshop 2023	-	-	58,800.00	100%
Chapter and Other Events	2,250.00	1,500.00	13,800.00	513%
TAC History Book Sponsorship	-	-	-	0%
<b>TOTAL REVENUE</b>	<b>460,675.00</b>	<b>592,490.00</b>	<b>171,396.63</b>	<b>-63%</b>
OPERATING EXPENSES				
TAC Administration (Contract services)	40,000.00	80,500.00	56,000.00	40%
TAC Conference 2022	317,867.00	317,867.00	-	-100%
TAC Workshop 2023	-	-	36,750.00	100%
Professional Services (audit)	6,000.00	6,000.00	6,000.00	0%
Miscellaneous	250.00	3,654.00	-	-100%
ITA and EIC Membership	3,750.00	3,273.00	3,937.50	5%
ITA Delegate travel	4,000.00	4,000.00	4,000.00	0%
Other Travel	1,500.00	1,500.00	1,500.00	0%
Website	5,000.00	5,000.00	3,800.00	-24%
Board and Chapter Exec Meetings	1,200.00	1,200.00	500.00	-58%
Office (Supplies, Telephone, etc)	750.00	1,510.00	1,700.00	127%
Promotional Materials	1,500.00	1,500.00	3,500.00	133%
Printing	1,200.00	1,200.00	500.00	-58%
Postage	650.00	2,267.00	900.00	38%
Bank Charges	600.00	602.00	630.00	5%
Merchant fees	2,500.00	4,569.00	3,100.00	24%
TAC Scholarships	8,000.00	8,000.00	8,000.00	0%
TAC Scholarship Travel	2,000.00	2,000.00	2,000.00	0%
TAC Awards	4,000.00	4,000.00	4,000.00	0%
Awards Video Production	12,000.00	15,416.00	16,000.00	33%
Chapter and Other Events	17,300.00	17,300.00	38,350.00	122%
Young Members	1,500.00	15,000.00	1,500.00	0%
Special Projects - TAC Commemorative Book	3,000.00	31,800.00	-	-100%
Canadian Tunnelling Magazine Pilot	14,000.00	16,896.00	16,540.00	18%
<b>TOTAL EXPENSES</b>	<b>448,567.00</b>	<b>526,353.00</b>	<b>209,207.50</b>	<b>-53%</b>
<b>NET INCOME/(LOSS)</b>	<b>\$12,108.00</b>	<b>\$66,137</b>	<b>-\$37,810.87</b>	<b>-412%</b>

*Motion: to  
approve the  
2022 Budget  
as presented*





# 2022 TAC Board of Directors

	NAME	POSITION	Responsibility	REGION	SECTOR	TERMS SERVED*	TERM COMPLETION
OFFICERS	Bruce Downing	Officer - President	ITA, Nordic Forum, EIC, Journal	W	CS	1	DEC 31, 2024
	Erik Eberhardt	Officer - Immediate Past President	Board Nominations, TAC Awards, Journal, WTC 2026	W	AC	1	DEC 31, 2024
	Jason Mann	Officer - VP, West	TAC Conferences, Journal	W	CS	1	DEC 31, 2024
	Andre Rancourt	Officer - VP, East	Membership, WTC 2026	E	CS	1	DEC 31, 2024
	Michelle Richards	Officer -Treasurer	Budget, Cash Management, Banking	W	CS	3	DEC 31, 2022
	Andre Solecki	Officer - Secretary	By Laws, Governance, Journal	E	CS	2	DEC 31, 2023
DIRECTORS	Stephanie Robillard	Director, British Columbia Region	British Columbia Region, Journal	W	CS	3	DEC 31, 2024
	Dan Ifrim	Director, Ontario Region	Ontario Region, Journal	E	CS	3	DEC 31, 2024
	Connor Langford	Director	Scholarship, TAC 2022, Journal	W	CS	3	DEC 31, 2024
	Seamus Tynan	Director	Safety Working Group, Journal	E	CT	4	DEC 31, 2024
	Nichole Boulton	Director	Young Members, Journal	W	CT	4	DEC 31, 2023
	Jean Habimana	Director, Quebec & Maritimes Region	Quebec & Maritimes Region, Journal, WTC 2026	E	CS	2	DEC 31, 2023
	Mark Diederichs	Director	EDI, Universities	E	AC	2	DEC 31, 2023
	Andrew Caruana	Director	By-Laws, Journal	E	SP	2	DEC 31, 2023
	Mohammed Al-Bataineh	Director, Alberta & Prairies Region	Alberta & Prairies Region, Journal	W	CS	0.33	DEC 31, 2022
	Glen Mongillo	Director	By Laws	E	SP	0.33	DEC 31, 2022
	Leila Sunderani	Director	EDI, Social Media	E	CS	1	DEC 31, 2022
	Boro Lukajic	Director	EIC awards, Journal, WTC 2026	E	CS	>5	DEC 31, 2022



# 2023 TAC Officers - Treasurer

## SECTION 7 – OFFICERS

### 7.01 Description of Offices

**d. Treasurer** – The treasurer shall be appointed by the directors. The treasurer shall have such powers and duties as the board may specify.

**The Board motioned and approved the appointment of Michelle Richards to a new 3-year term.**



# 2023 TAC Board of Directors Election

## SECTION 5 – DIRECTORS

### 5.01 Election and Term

**Nominees** for... director positions shall be selected by majority vote of the directors.

The **Slate of Nominees** selected by the... **directors** shall be submitted to the entire membership of the Corporation with the **notice of the Annual General Meeting**.

**Additional nominees** may be submitted by the **written notice** of not less than five (5) members, together with the written agreement of the additional nominee(s).

If additional nominations are received, an election will be held by ballot for those positions for which the additional nominations are received.



# 2023 TAC Board of Directors Slate

**The Board motioned and approved the following slate for the director positions whose terms are ending. This was sent to membership with the announcement of the AGM**

Mohammed Al-Bataineh	Director, Alberta & Prairies Region	Alberta & Prairies Region, Journal	W	CS	0.33	DEC 31, 2022
Glen Mongillo	Director	By Laws	E	SP	0.33	DEC 31, 2022
Leila Sunderani	Director	EDI, Social Media	E	CS	1	DEC 31, 2022
Boro Lukajic	Director	EIC awards, Journal, WTC 2026	E	CS	>5	DEC 31, 2022

*Motion: to approve the TAC Board of Directors Slate as presented*



# Regional Reports – TAC West

## British Columbia – In Construction

**Second Narrows Water Supply Tunnel** - Includes three critical water mains (1.5 m dia. and 2x2.4 m dia.) under the Burrard Inlet between North Vancouver and Burnaby

**Annacis Water Supply Tunnel** - Tunnel between Surrey and New Westminster is under construction. Includes a 4.5 m diameter EPBM to construct the 2.3 km long tunnel below the river.

**Broadway Subway Rail Extension** - 5.7 km-long rail extension with six new underground stations



# Regional Reports – TAC West

## British Columbia – In Design

**Eagle Mountain Gas Pipeline Tunnel Project** - 9km tunnel component to house a 24” gas pipeline

**Stanley Park Water Supply Tunnel** - Metro Vancouver project will feature a 1.4km tunnel under Stanley Park constructed by roadheader

**Cambie Richmond Water Supply Tunnel** - new water supply tunnel under the Fraser River between Vancouver and Richmond

**Haney Water Supply Tunnel – Pitt River Crossing** – 1.2 km long tunnel under the Pitt River between Port Coquitlam and Maple Ridge to house a 2.4 m diameter steel water main

**Lulu Island Delta Main Fraser River Crossing** – Replacement of an 800 mm steel pipe along the bottom of the Fraser River between the City of Richmond and the City of Delta.





# Regional Reports – TAC West

## Alberta– In Construction

**99 Avenue Tunnel Bypass** – Sanitary sewer conveys wastewater from a large part of west Edmonton to the Gold Bar WTP: 1615 m of 1800 mm ID reinforced concrete pipes

**Valley Line West LRT Drainage Relocation** - Approximately 4km of underground sewer constructed using open cut and/or microtunnelling construction methods

**Kinnaird Opportunistic Sewer Separation** - Connect existing 1,200mm storm sewer at the intersection of 89 Street and 119 Avenue to an existing 1,800mm storm sewer at the intersection of 88 Street and 117 Avenue (project completed)

Recent Awards: Mill Creek S2 - Combined Sewer Trunk Rehab

Duggan Tunnel Replacement

23rd Ave Drainage Tunnel for Capital Line LRT



# Regional Reports – TAC West

**Manitoba/Prairies** – Near Term – Investment in BFR and CSO Management Programs

**Cockburn and Calrossie Contract 7**– Approximately 540 m of 1,350 mm diameter and approximately 235 m of 1,200 mm diameter sewer

**Manitoba/Prairies** – Future

**Cockburn and Calrossie Contracts 9 and 13** - Estimated to be prepared for tendering sometime during 2023, with the potential for up to 2 km of trunk sewer ranging in diameter from 900 mm to 1,800 mm



# Regional Reports – TAC East

Presented by: André Rancourt, VP East TAC



# Ontario Tunnelling Updates

## Projects under construction:

- *Eglinton Crosstown West Extension*
- *Scarborough Subway Extension*
- *Ashbridges Bay Outfall Tunnel*



# Eglinton Crosstown West Extension

- 9.2 km extension to Eglinton Crosstown LRT of which @6.4 km of 5.75 m (ID) twin bored tunnels.

Rexy and Renny, the 2 TBMs started tunnelling on 11<sup>th</sup> of April 2022 and are well advanced in ground, achieving record excavation rates.



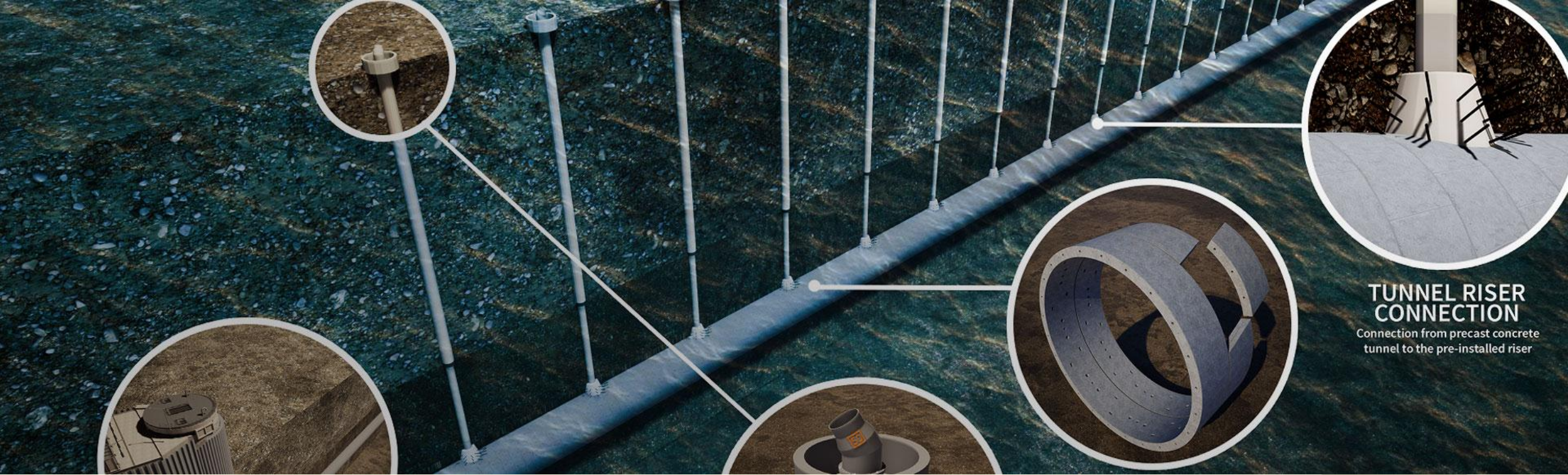


# Scarborough Subway Extension

Feature the largest transit tunnel in Canada, 11.9 m ID. The project consists of 7.8 km of single bore tunnel, 500 m cut & cover box structure between Kennedy Station and end of tunnel and 3 stations. The TBM arrived at the job site in Toronto.







**TUNNEL RISER  
CONNECTION**  
Connection from precast concrete  
tunnel to the pre-installed riser

## *Ashbridges Bay Outfall Tunnel*

The ABTP Outfall project has reached an important milestone: tunnel completing and TBM removal. To final completion there are a couple of raisers to be installed followed by tunnel connection and the rest of the marine work including riser connection and diffusers installation.



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# *Ashbridges Bay Outfall Tunnel*



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# Ontario Tunnelling Updates

## Upcoming projects:

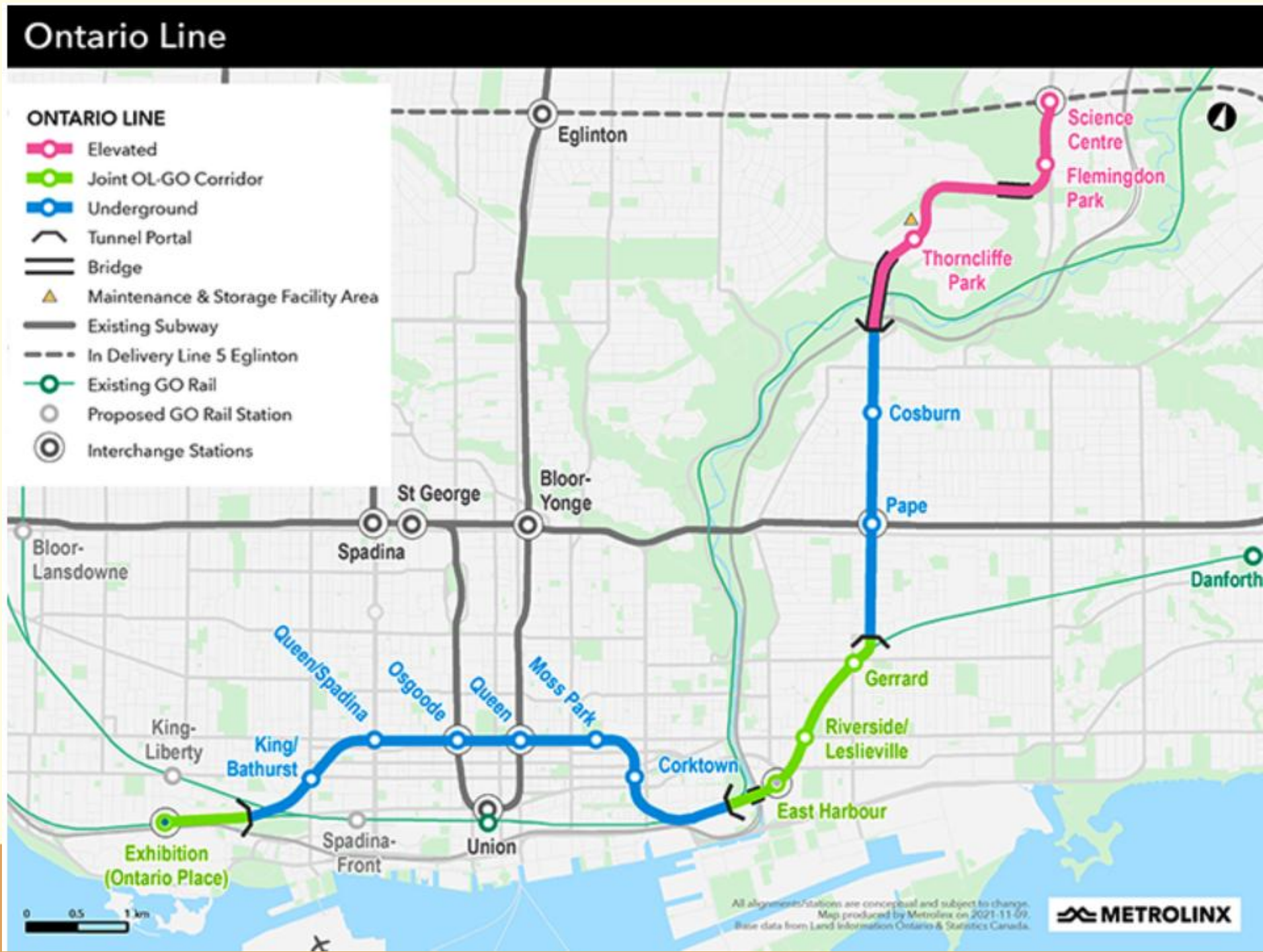
- *Ontario Line*
- *Yonge Extension*
- *Inner Harbour West*





# Ontario Line

The Project will be the largest transit project in Canada including 15.6 km of subway line with 15-stops running from Exhibition Place, through the heart of downtown, and all the way to the Ontario Science Centre. The D/B project is expected to be awarded by the end of 2022.

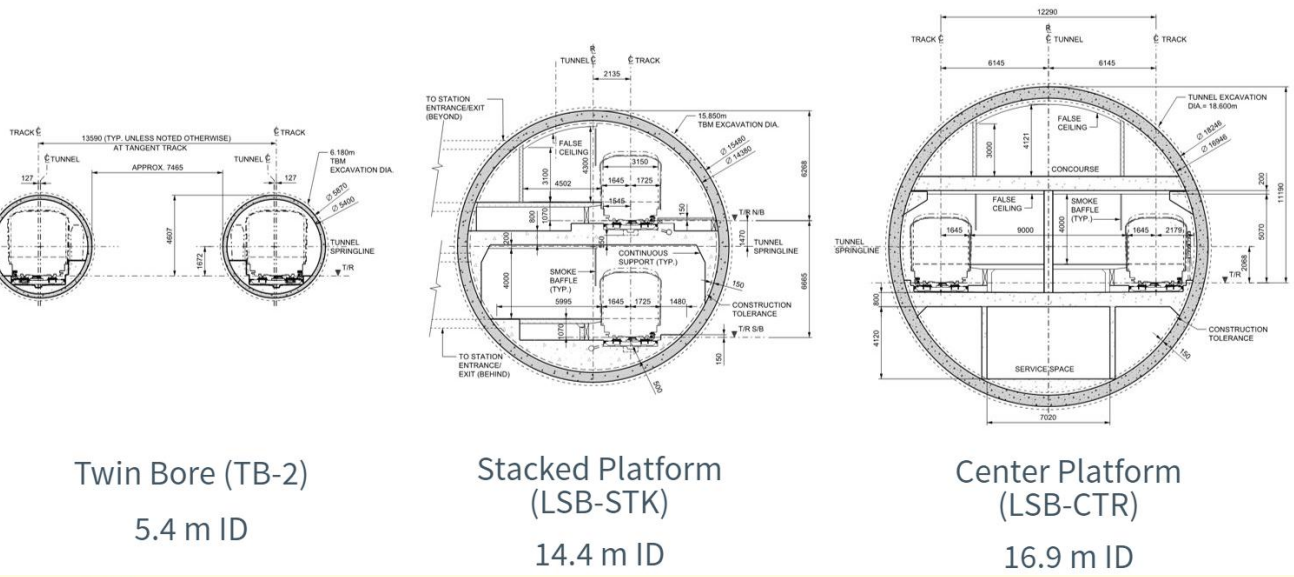


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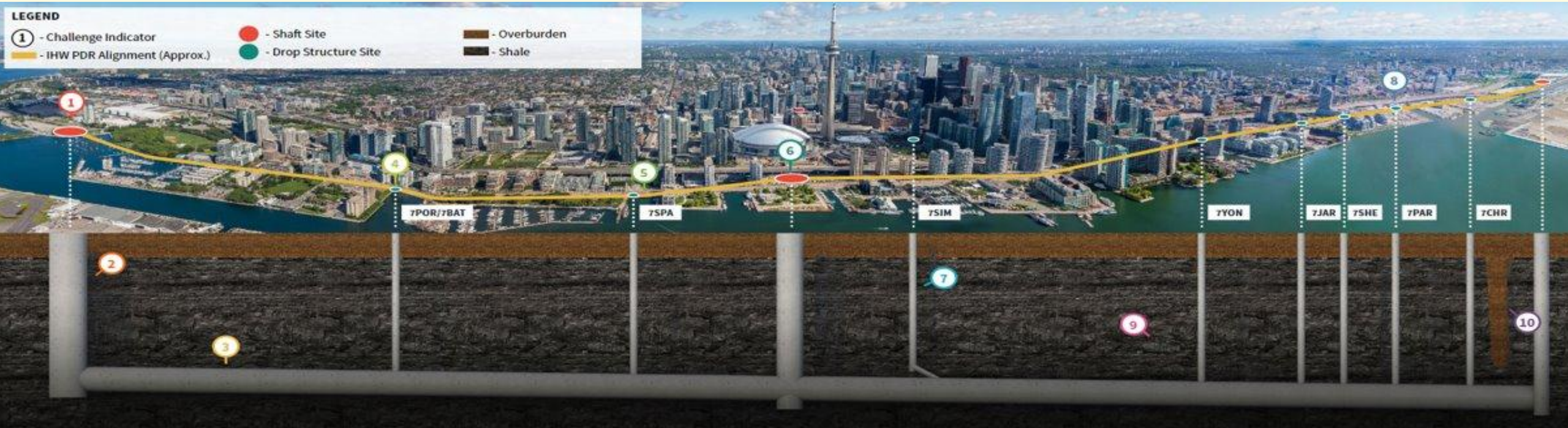
# Yonge Extension

The Yonge North Subway Extension (YNSE) will extend the TTC's Line 1 subway service ±8 km from the existing terminus at Finch Station into the City of Richmond Hill. It will include a 6.1 km underground tunnel segment. The RFP is expected in 2023.

## YNSE – Tunnel Options







## Inner Harbour West

The project is stormwater storage for Wet Weather Flows (WWF) and water quality improvement. The project includes:

5.5 km of tunnels (6.3m ID), 3 shafts (up to 30m dia.), 9 connections and 8 drop structures.



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# Québec Tunnelling updates

## Projects under construction:

- *REM Transit Electrical Train Line*
- *Lafontaine Tunnel Rehabilitation*
- *Cote-Vertu Metro Storage and Maintenance Facility*





# REM Transit Electrical Train Line





# REM Transit Electrical Train Line

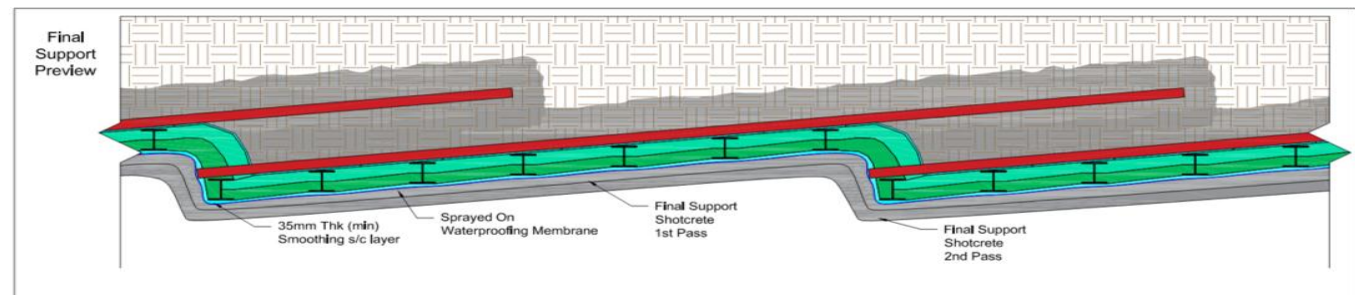
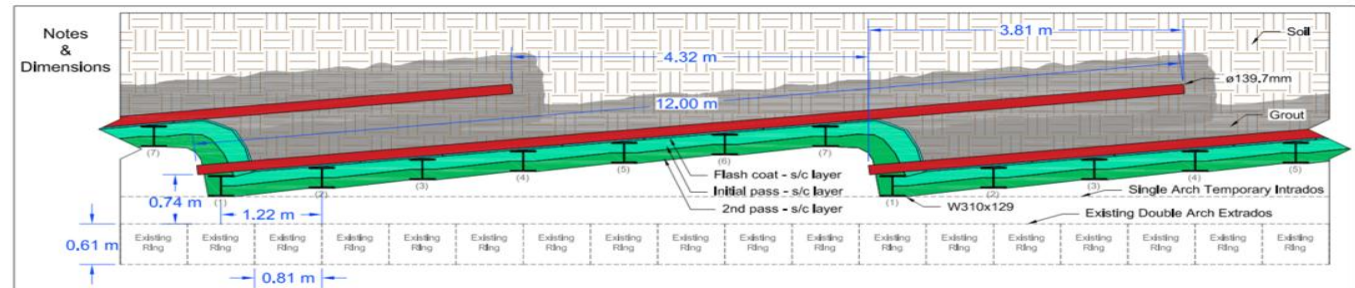
The “Alice” TBM finished excavation of the 2.5 km long 7.4 m diameter single track tunnel that runs underneath airport runway and taxiway with very negligible settlement on July 7, 2022. TBM cutterhead and shield will remain in place waiting for the Airport Station excavation to be completed for their removal. TBM is being dismantled from Technoparc Station to allow trackwork and equipping to commence.





# REM Transit Electrical Train Line

Work is proceeding in the 5 km long 100 year old Mont-Royal Tunnel that is being converted from a commuter rail operation to a high frequency light rail operation. Excavation for the two underground stations is completed and the inside structures are being constructed. The replacement and rehabilitation of the 500 m long masonry south section is completed that used a combination of pipe arch canopy and a structure repair to strengthen a portion of the tunnel that was corroded due to shallow cover and de-icing salt from the above roadway. Other ongoing work include installation of a firewall along the tunnel and other tunnel systems to comply with NFA 130 requirements.

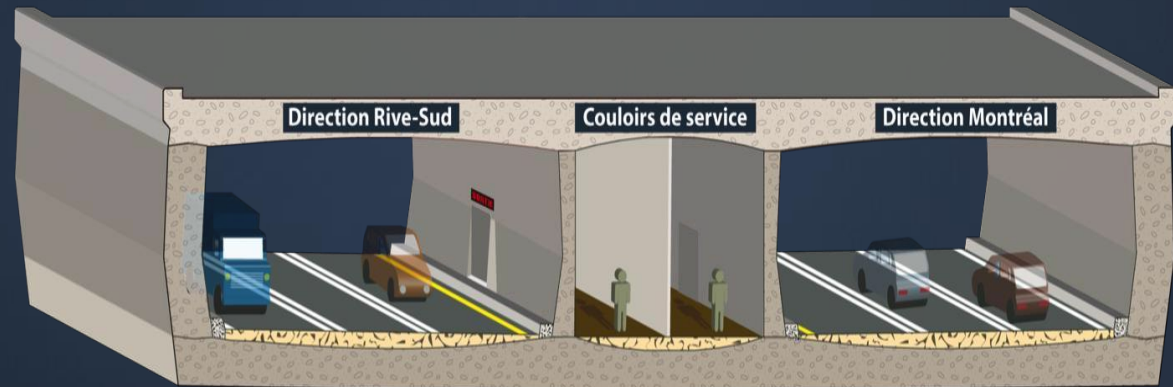
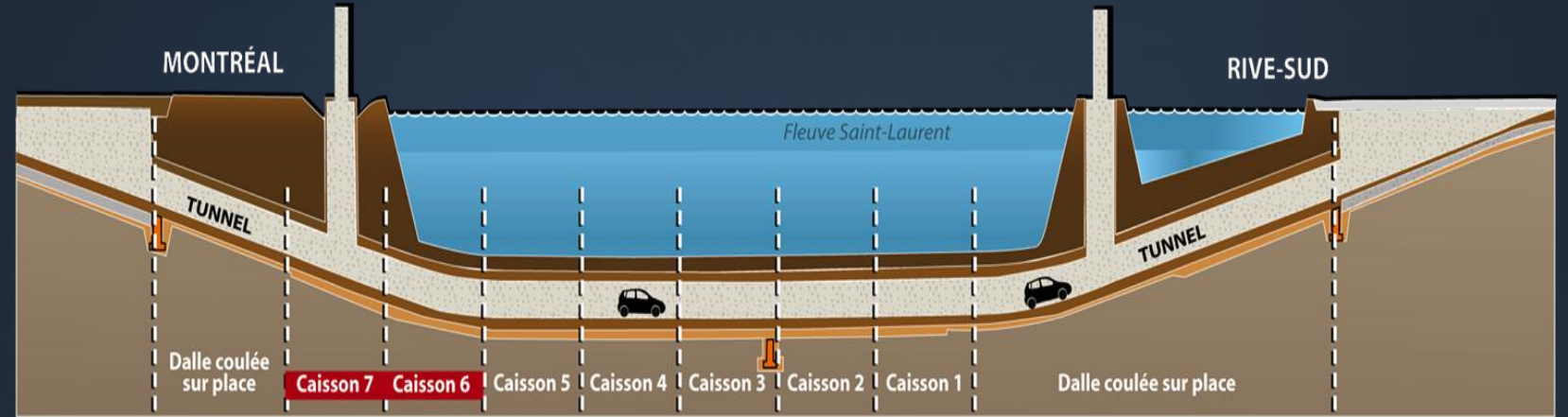


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# Lafontaine Tunnel Rehabilitation

Preparatory work is ongoing at both approach and lane closure has started in south direction to allow repair of screed and installation of Saccardo fans at the tunnel entrance. Rest of tunnel systems is being implemented in the two tunnel towers and central corridor.





# Cote-Vertu Metro Storage and Maintenance Facility

Opening for the Garage Cote Vertu Project was on June 17 with local, provincial, and federal officials. The project will house 10 additional trains and provide a repair shop within three parallel tunnels and a connecting tunnel the existing tunnel for a total of 2.5 km long. This will allow trains to be inserted during rush hours and increase train frequency on the Orange Line.



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# Québec Tunnelling Updates

## Upcoming projects:

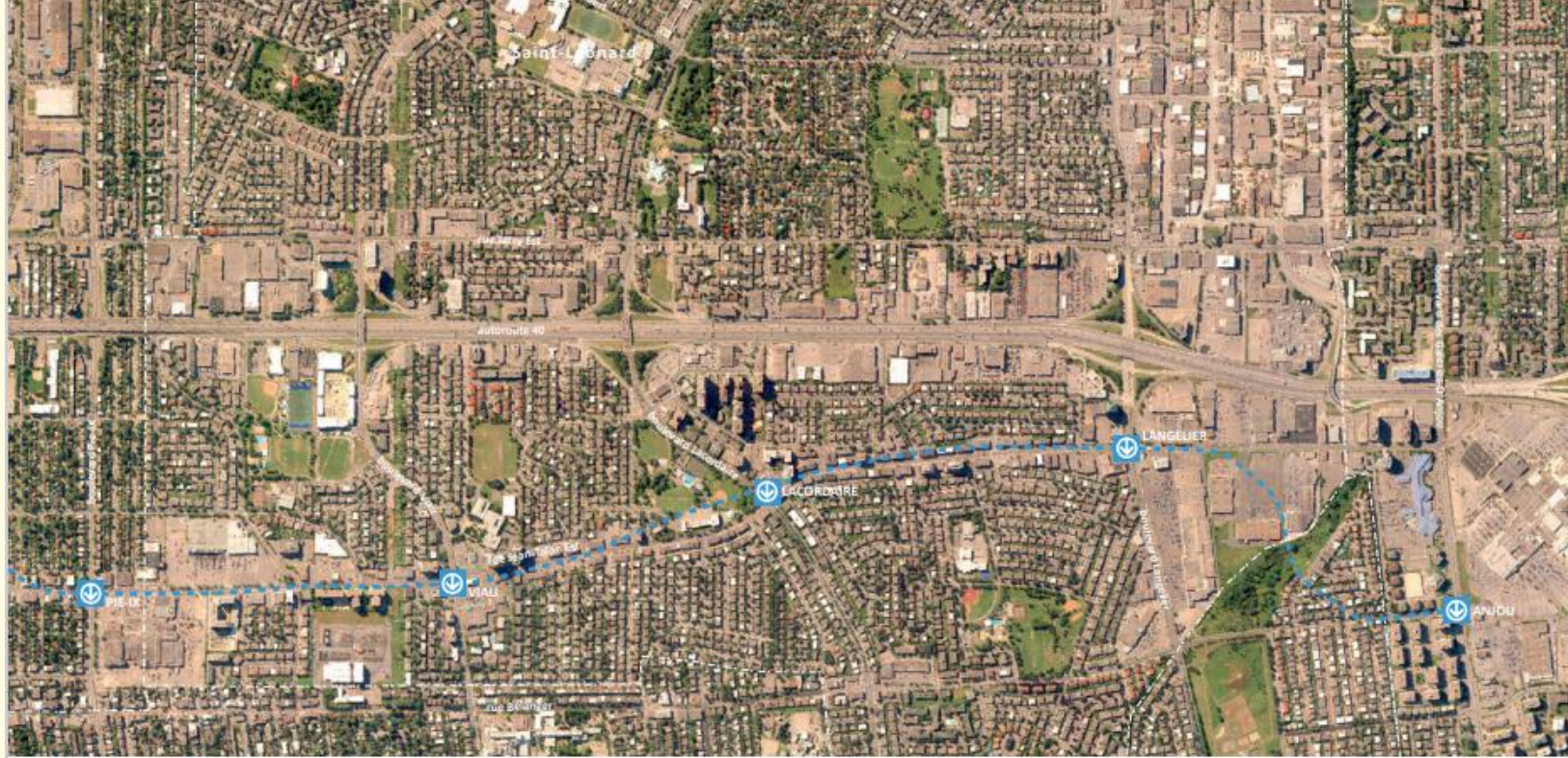
- *Blue Line Extension*
- *REM East Extension*
- *Québec City-Lévis Road Tunnel*
- *Québec City Tramway Tunnel*





# Blue Line Extension

±3 km Metro line extension, with 5 stations. Conventional BB contract. Request for proposals for is expected shortly.





# REM East Extension

7 jours / 7

horaire synchronisé au métro  
de Montréal

2 à 4 min.

fréquence aux heures de pointe

100%

électrique et automatisé

10 G \$

coût total estimé  
pour le projet

32 km

de voies dédiées :  
7 km souterrains  
et 25 km aériens

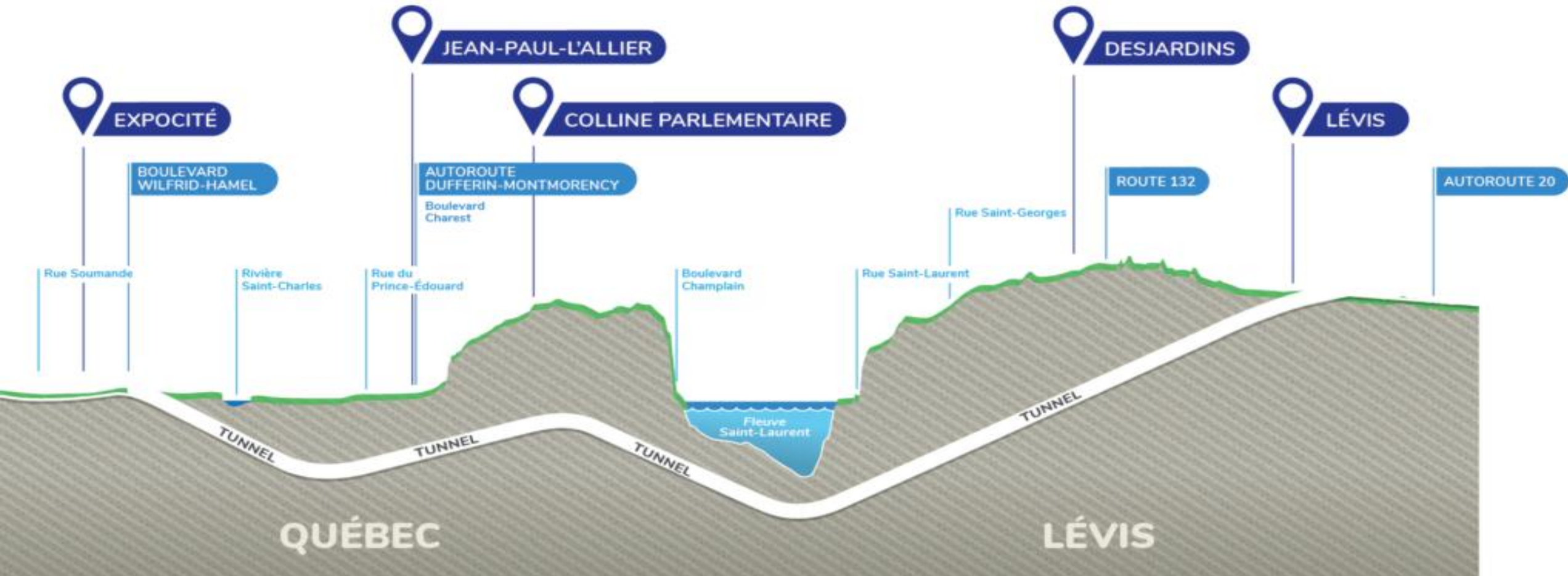
23 stations

accessibles



# Québec City-Lévis Road Tunnel

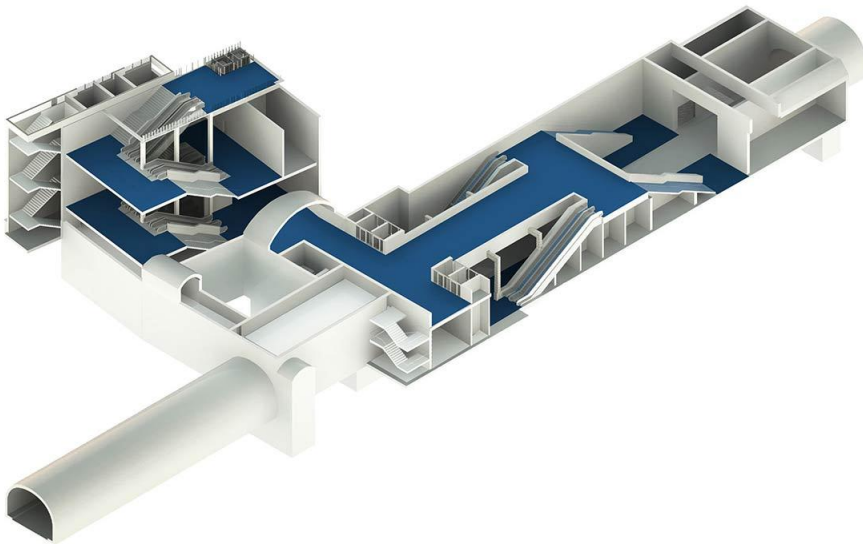
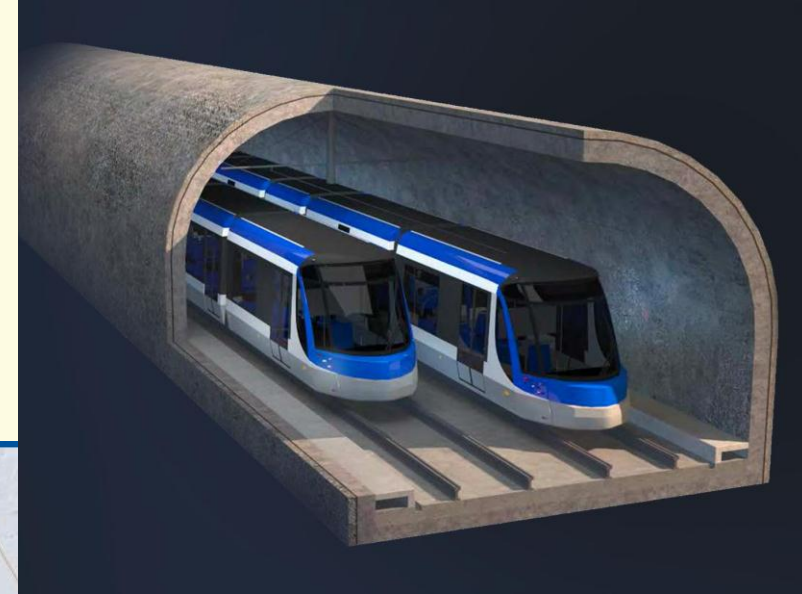
The provincial government has selected a twin tunnel configuration with two lanes in each direction as opposed to previously announced one bore with three lanes in each direction. Preliminary Design is expected to end in 2025





# Québec City Tramway Tunnel

1.8 km Tunnel with 2 tracks and 2 UG Stations. Tender Design is progressing for the Quebec Tramway with two packages: the rolling stock and the infrastructure packages that are being tendered in sequence. Each package has received two proponents team. Bids are due in Fall 2022 for rolling stock and in Spring 2023 for the infrastructure package.



# Young Members Report



Presented by: Nichole Boulton

## Current Young Members

- Student Members: 43 (up from 37 last year)
- Young Members ( $\leq 35$ ): 57 identified through TAC registration

## Current Social Media Outreach

- 1,456 followers on Facebook (@TACyoungmembers)
  - 1,152 last report
- 239 followers on Instagram (@tac\_young\_members)
  - 203 last report
- Goal for this upcoming year is to coordinate the Social Media Outreach with the Communications Task Force and Redstone to increase activity and engagement.





# Young Members Report

**Presented by: Nichole Boulton**

## BC Site Visits

Site Visit to Second Narrows Project and  
NSCP Project for GeoRox students  
hosted by Traylor-Aecon and Michels Canada – Nov 20,  
2021

Site Visit to Vancouver Area Microtunnel project planned  
for Nov 2022



# Young Members Report

Presented by: Nichole Boulton

## ON Site Visit

CSI-Forterra Precast plant site visit in Whitby –  
hosted by CSI Forterra

*The opportunity to visit and witness the production of precast tunnel liners was truly unique, interesting, and informative. What I enjoyed the most was learning about the innovation in the concrete mix design by using steel fibers.*

**-Ali**

*I am grateful for the opportunity provided by TAC and CSI-Forterra to witness firsthand how the liner for this project is being manufactured and tested.*

**-Luigi**





# Young Members Report

Presented by: Nichole Boulton

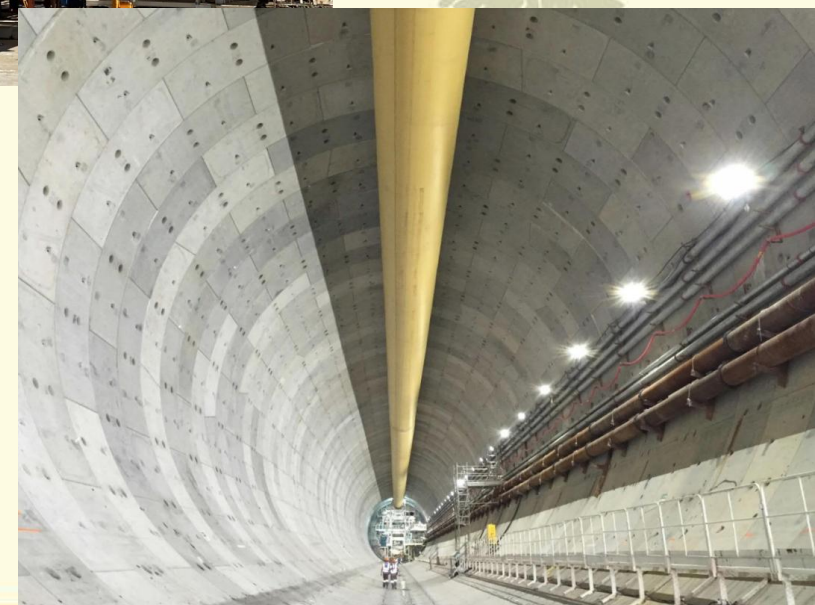
## Tunnelling 101 – Webinar Series

- May 18, 2022
- TBM's – Brad Grothen (Robbins)
- 75 attendees
- Oct 19, 2022
- PCTL – Michael Dutton (Arup)
- 82 attendees
- Nov 16, 2022 (Tentative Date)
- Drill & Blast Excavation – Jonathan Aubertin (ETS) & Marc-Antoine Prince



### Upcoming - TBD

- Why Go Underground – ITA ?
- Risk Management – C. Langford
- Rock Support – TBD
- Shotcrete – TBD
- Tunnel Safety – TBD
- Tunnel Mapping – TBD
- Suggestions? Volunteers?







# Young Members Report

**Presented by: Nichole Boulton**

## YM Group Structure

- Director
- Past Chair
- Chair / Co-Chair
- Sub-Chairs
- Secretary

## *Regional Sub-Chairs*

- Vancouver / BC
- Alberta and Prairies
- Toronto / Southern Ontario
- Kingston / Ottawa & Eastern Ontario
- Montreal / Quebec & Atlantic

## *Sub-Chairs*

- Communications
- University and Academic Outreach
- Professional Development and Industry Outreach



# Young Members Report

Presented by: Nichole Boulton



**Timothy Packulak**  
Co-Chair



**Michael Dutton**  
Co-Chair





# Young Members Report

**Presented by: Nichole Boulton**

## ***Regional Sub-Chairs***

- Vancouver / BC – Elaina Collis and Farah ElAmir
- Alberta and Prairies - *Vacant*
- Toronto / Southern Ontario – Michael Dutton
- Kingston / Ottawa & Eastern Ontario – Simone Markus
- Montreal / Quebec & Atlantic – Jonathan Aubertin

## ***Sub-Chairs***

- Communications - Vacant
- University and Academic Outreach - Vacant
- Professional Development and Industry Outreach - Vacant



# WTC 2026 Update

Presented by: Andre Rancourt



# WTC2026 Montréal Update

- Submit Montréal candidature for 2026 to ITA
- Running against Cape Town, SA
- Venue at the Palais des Congrès de Montréal (PdC)
- PdC lead the bid preparation
- Selected JPdL as our Conference Organiser
- Vote will be in Athens 2023





# WTC2026 Montréal Update

# Montréal 2026



**ITA - AITES  
World Tunnel  
Congress 2026**

May 15 to 21, 2026  
Montréal, Canada



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→ Downtown Montréal.  
© Henry MacDonald (@night.shotz) - Tourisme Montréal.



# WTC2026 Montréal Update



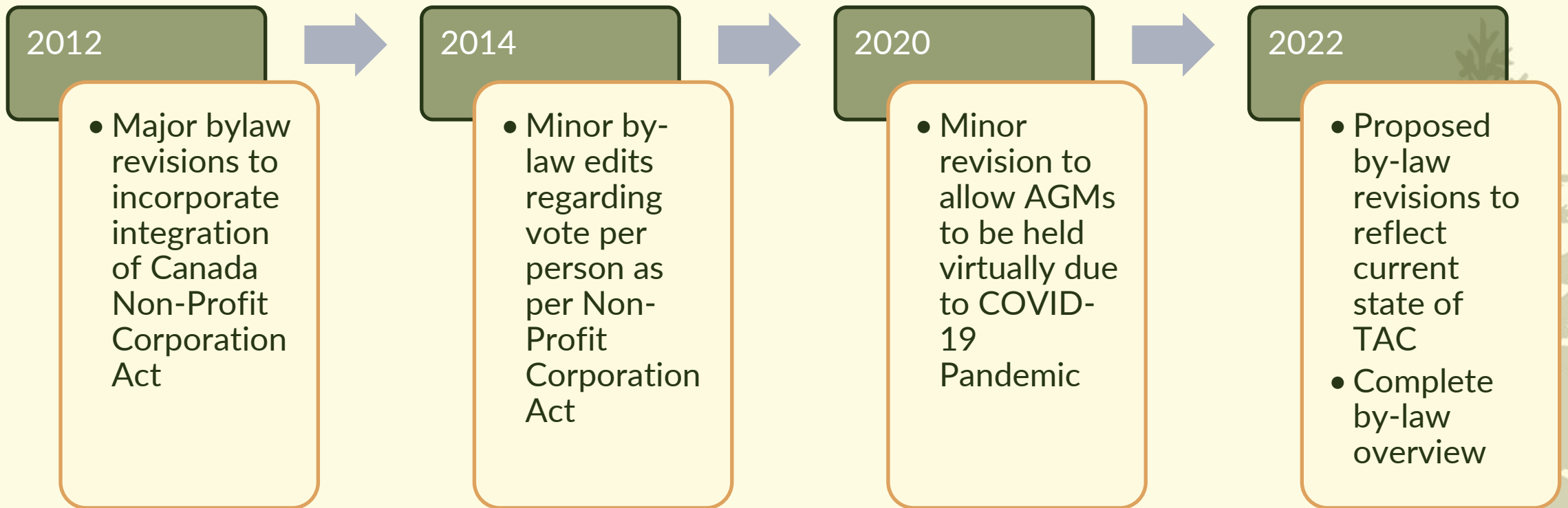
# By-Law Updates & Proposed Revisions

Presented by: Andre Solecki, TAC Secretary



# By-Law Updates

## Recent By-Law Revision History



# By-Law Updates

## Summary of Main Proposed By-Law Edits

- ❑ By-Law review completed by TAC By-Law committee 2021 to 2022
- ❑ By-Law committee comprised of TAC current Directors and Past-Presidents
- ❑ Proposed By-Law revisions included in attachment to 2022 AGM notice circulated to all TAC members

**BY-LAW NO. 1**  
A by-law relating generally to the conduct of the affairs of  
**TUNNELLING ASSOCIATION OF CANADA – ASSOCIATION CANADIENNE DES TUNNELS**  
(the "Corporation")

**TABLE OF CONTENTS**

Section 1 – General  
Section 2 – Membership – Matters Requiring Special Resolution  
Section 3 – Meetings of Members  
Section 4 – Directors  
Section 5 – Meetings of Directors  
Section 6 – Officers  
Section 7 – Notices  
Section 8 – Auditor  
Section 9 – Regional Chapters  
Section 10 – Management of the Corporation's Affairs  
Section 11 – Effective Date

**BE IT ENACTED** as a by-law of the Corporation as follows:

**SECTION 1 – GENERAL**  
**.01 Definitions**

this by-law and all other by-laws of the Corporation, unless the context otherwise requires:

- a) "Act" means the *Canada Not-for-profit Corporations Act* S.C. 2009, c.23 including the Regulations made pursuant to the Act, and any statute or regulations that may be substituted, as amended from time to time;
- b) "Articles" means the original or restated articles of incorporation or articles of amendment, amalgamation, continuance, reorganization, arrangement or revival of the Corporation;
- c) "Board" means the Board of Directors of the Corporation
- d) "Director" means a member of the Board;
- e) "By-law" means this by-law and any other by-law of the Corporation as amended and which are, from time to time, in force and effect;
- f) "Member" means a member of the Corporation
- g) "Members" means the collective membership of the Corporation
- h) "Meeting of Members" includes an annual meeting of members or a special meeting of members; "special meeting of members" includes a meeting of any class or classes of members and a special meeting of all members entitled to vote at an annual meeting of members;
- i) "Officer" means an Officer of the Corporation
- j) "Ordinary Resolution" means a resolution passed by a majority of not less than 50% plus 1 of the votes cast on that resolution;
- k) "Proposal" means a proposal submitted by a member of the Corporation that meets the requirements of section 163 (Shareholder Proposals) of the Act;
- l) "Regulations" means the regulations made under the Act, as amended, restated or in effect from time to time; and
- m) "Special Resolution" means a resolution passed by a majority of not less than two-thirds (2/3) of the votes cast on that resolution.





# By-Law Revisions

## Proposed By-Law Revisions Overview

### ☐ Administrative

- Definitions
- Reordering and Reorganization

### ☐ Membership

- Added “retired” member as a new membership class

### ☐ Officers

- ☐ Updated roles & responsibilities
- ☐ Added new criteria for election & term
- ☐ President & Vice-President 3-year term limits and maximum two consecutive terms
- ☐ Added timelines for submitting additional nominees
- ☐ No change to secretary and treasurer (i.e., appointment by the board)

### ☐ Directors

- Clarified process for election (slate of nomination with AGM)
- Board of Director quorum
- Clarified term length and director renewals
- Added timelines for submitting additional nominees
- Added qualifications for Director
- Added conflict of interest statement
- Added clause for indemnification
- Resolution outside of board meetings

### ☐ Miscellaneous

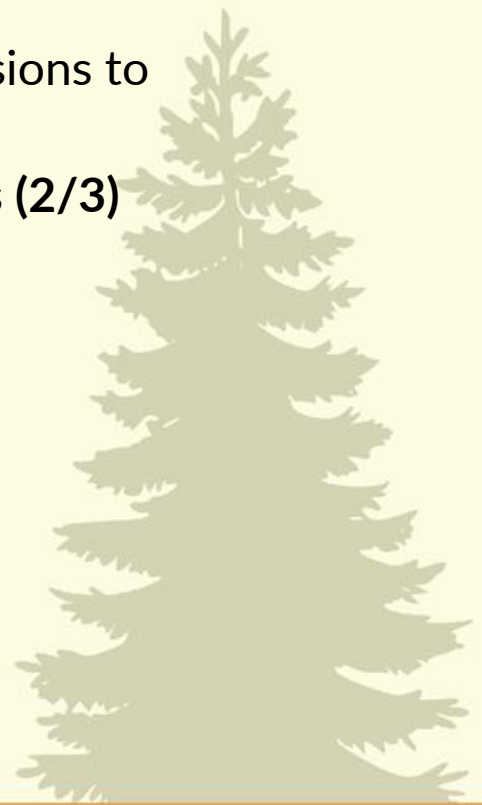
- ☐ Clarified fiscal year end
- ☐ Administration management contract limits



# By-Law Revisions

## Proposed By-Law Revisions

- ❑ Proposed By-Law revisions include amendments to the requirements of membership, therefore in accordance with the Canada Non-Profit Corporations Act (S.C 2009), revisions to the By-Law require **Special Resolution** by the membership
- ❑ Special Resolution: means a resolution passed by a majority of not less than **two-thirds (2/3)** of the votes cast on that resolution.



# By-Law Revisions

**Motion:** *Moved by Andre Solecki, seconded by Bruce Downing,  
that the proposed amendments to the TAC By-Laws as included with the  
AGM Notice be approved as presented.*



# Canadian Tunnelling Magazine

Have had a successful year with the Canadian Tunnelling Magazine

- 3 issues prepared (1 in 2021, 2 in 2022)

Have added new sections, expanded the content of the magazine

- Typically 2 articles, added an interview section, TAC news / updates

Believe that this is providing benefit to the industry and TAC members

- Want to confirm this via a survey to be launched later this year

In the meantime, planning to continue with an issue at the start of 2023

- March timeline – focus on sustainability and growth in Quebec





# Other Business



# **Adjournment**

## **EDI presentation to begin shortly**

