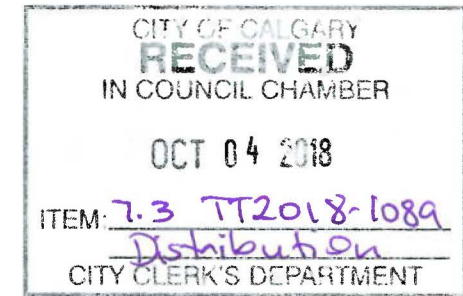
A nighttime photograph of the Calgary clock tower, illuminated against a dark sky. The tower's spire is visible in the upper right, and the clock faces are visible in the lower right. A red horizontal band is overlaid on the image, containing the title and date.

# Green Line Update TT2018-1089 October 04, 2018

Paul Giannelia, Managing Director, Project Green Line (PGL.LRT)



## PGL.LRT @success



**One Objective:** Earliest Completion!

 **Lowest Cost**

**+**

**One Goal:** Certainty!

- Date Certain
- Cost Certain
- Quality Certain
- Safety Certain
- Community Satisfaction

**=**

**Execution Success:** Lowest Cost + Safest Job + Highest Quality!



# The Green Line LRT

## Work Area #1

Entire Alignment

44.2 km

## Work Area #2

160 Avenue N to 16 Avenue N

15.1 km

## Work Area #3

16 Avenue N to Lynnwood/Millican

10.3 km

## Work Area #4

Lynnwood/Millican to Shepard

10.3 km

## Work Area #5

Shepard to Seton

8.6 km





## Work Area #3

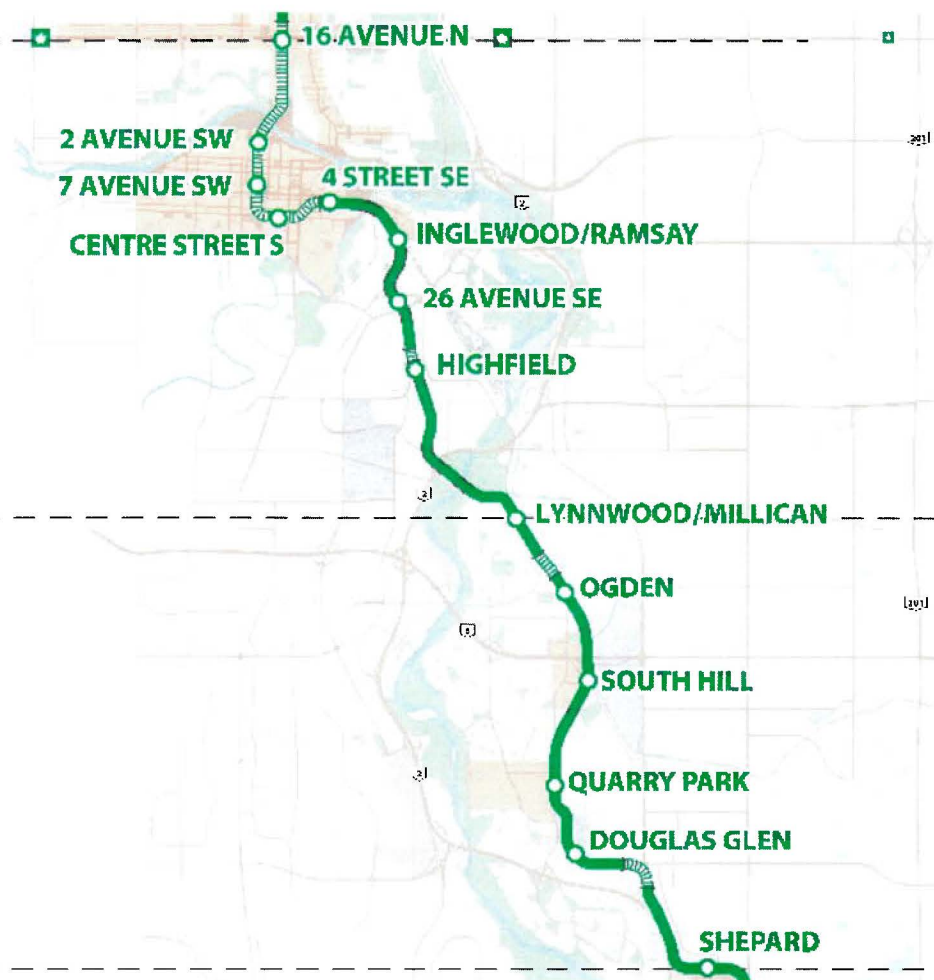
16 Avenue N to Lynnwood/Millican

10.3 km

## Work Area #4

Lynnwood/Millican to Shepard

10.3 km





## **Constructability Review Update**

**We are working towards a Stage 1 design that**

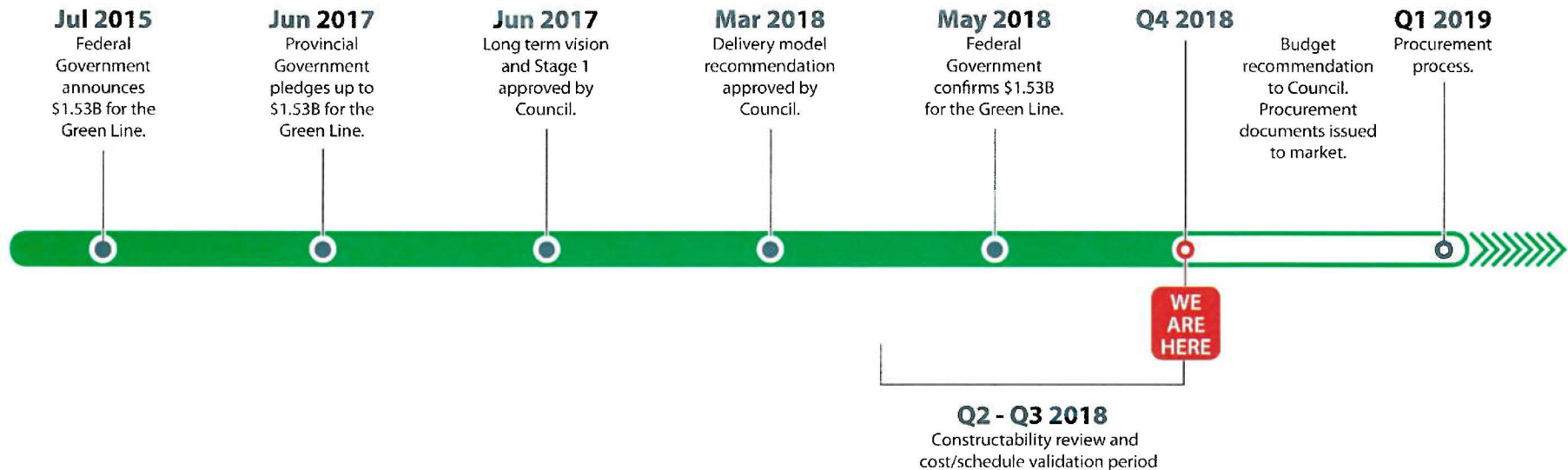
- Will meet Council objectives within affordability limits
- Prioritizes the safest work methods

**Three key workstreams**

- Design
- Cost Estimate
- Inflight/ Enabling Works

**Constructability review and related value engineering exercise are substantially complete**

# Where we **are** & where we're **going**





## Enabling Works Update\*

- Land acquisition
- Clearing right of way
  - Relocation of existing landfills
  - Utility relocations
  - Demolition of buildings

*\*See Report, Attachment 1 for detail*

## Funding – Green Line Project



2018 April, the Government of Canada provided final approval for \$1.53 billion funding for Stage 1



2017 June, The Government of Alberta pledged up to \$1.53 billion over 8 years for Stage 1



2015 December, The City of Calgary committed \$1.56 billion for the Green Line Program with \$52 million / year over the next 30 years

- The provincial government is negotiating the Ultimate Recipient Agreement (URA) with The City, on behalf of the provincial and federal governments
- The URA is expected to be finalized in Q4 2018





## Funding Status – October 4, 2018

	Funds	Description	Funding status
1	\$360.6 million	Enabling Works and Right of way preparation	Approved and Funded
2	\$4.65 billion	Stage 1 Project	Pending final Agreement (URA) and Council approval
3	\$23.7 million/year until 2044	Green Line debt servicing	Approved and Funded
4	\$40 million/year (2016-dollars)	Net operating costs	Not yet Approved or Funded

## Procurement Strategy

- Work in progress – target completion before end of Q4 2018
- Objective - best value for The City of Calgary

## Procurement Activities Currently Underway

- Development of light rail vehicle specifications
- Development of Stage 1 technical requirements



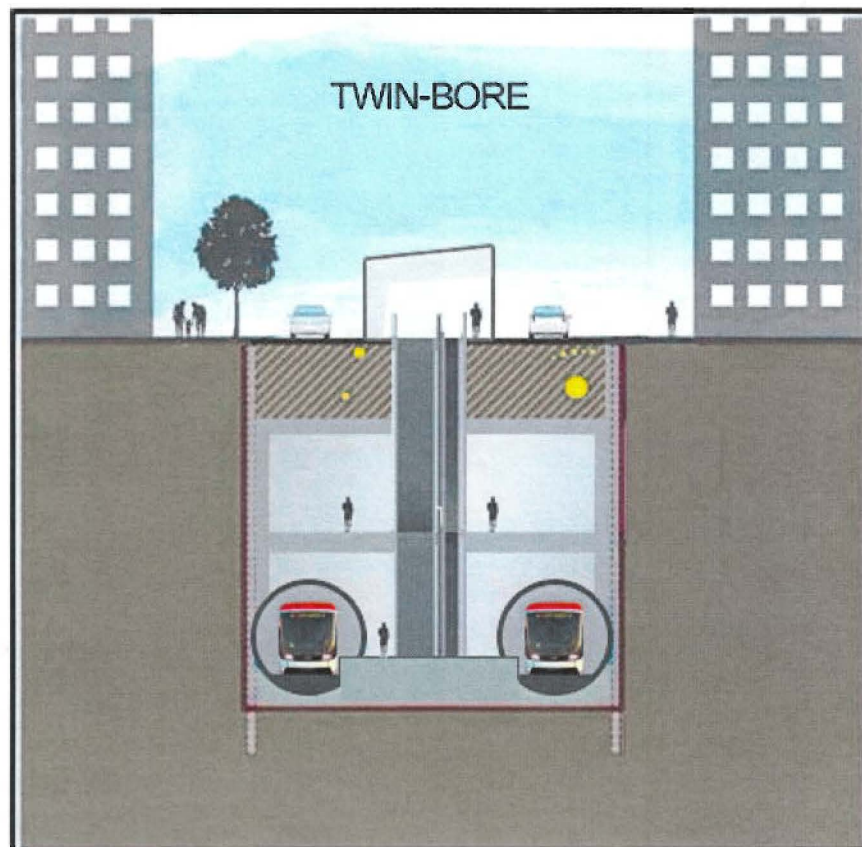
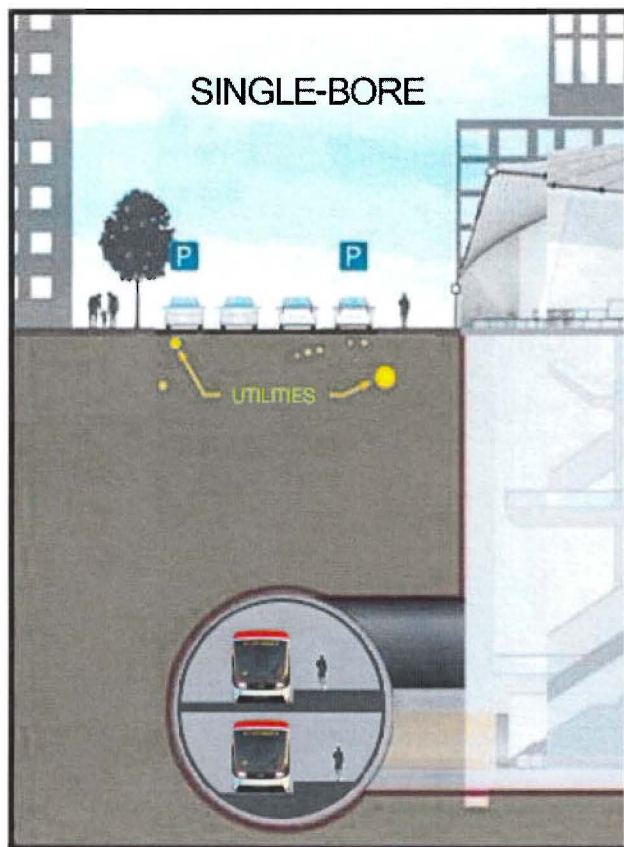
## Tunnel Boring Machine (TBM)







## Tunnels - single vs. twin bore







## City Shaping & Transit Oriented Development (TOD)

- Administration is committed to delivering City Shaping & TOD within the larger Green Line project
- Community Services and Planning & Development continue to develop strategies respectively; staff is embedded in Green Line functional teams to ensure that City Shaping & TOD requirements are in the RFP documents
- SPC Updates
  - 2018 Q4 – Community & Protective Services - City Shaping
  - 2019 Q1 – Planning & Urban Development - TOD



- World class transit system designed for maximum user friendliness
- Most user friendly during construction and operations
  - Least impact during construction
  - Keep doors of businesses open during construction
  - Easiest and friendliest access to the train during operations
- Transit Oriented Development & City Shaping integrated into execution plan



- Complete detailed Project Execution Plan
- Finalize Procurement Strategy
- Complete Stage 1 design
- Issue Stage 1 Procurement Documents