

# Welcome

An updated Stage 1 alignment with a bridge over the Bow River and a surface LRT along Centre Street N was presented to the Green Line Committee in January.

The project team acknowledges that the updated alignment is a departure from what Council had approved in 2017.

Today, we are here to:

- Share what the updated Stage 1 alignment might look like.
- Hear your feedback on the updated alignment.
- Answer questions you may have.
- Share next steps with you as the project team continues to work toward a recommendation.

## **Green Line Project Vision**

A city-shaping transit service that improves mobility in communities in north and southeast Calgary, connecting people and places and enhancing the quality of life in the city.



# Green Line serves the mobility needs of Calgarians

## Green Line improves mobility choices

In its entirety, the Green Line will deliver high-quality transit service to Calgarians in north central and southeast communities.

## Green Line connects people and places

Construction of the Green Line is our next step towards completing Calgary’s transit network, as described in *RouteAhead: A Strategic Plan for Transit in Calgary*.

## Green Line enhances quality of life

Along with the new MAX bus rapid transit lines, Calgarians will have fast, frequent and reliable transit service that strategically connects communities, employment hubs, and key destinations across the city.





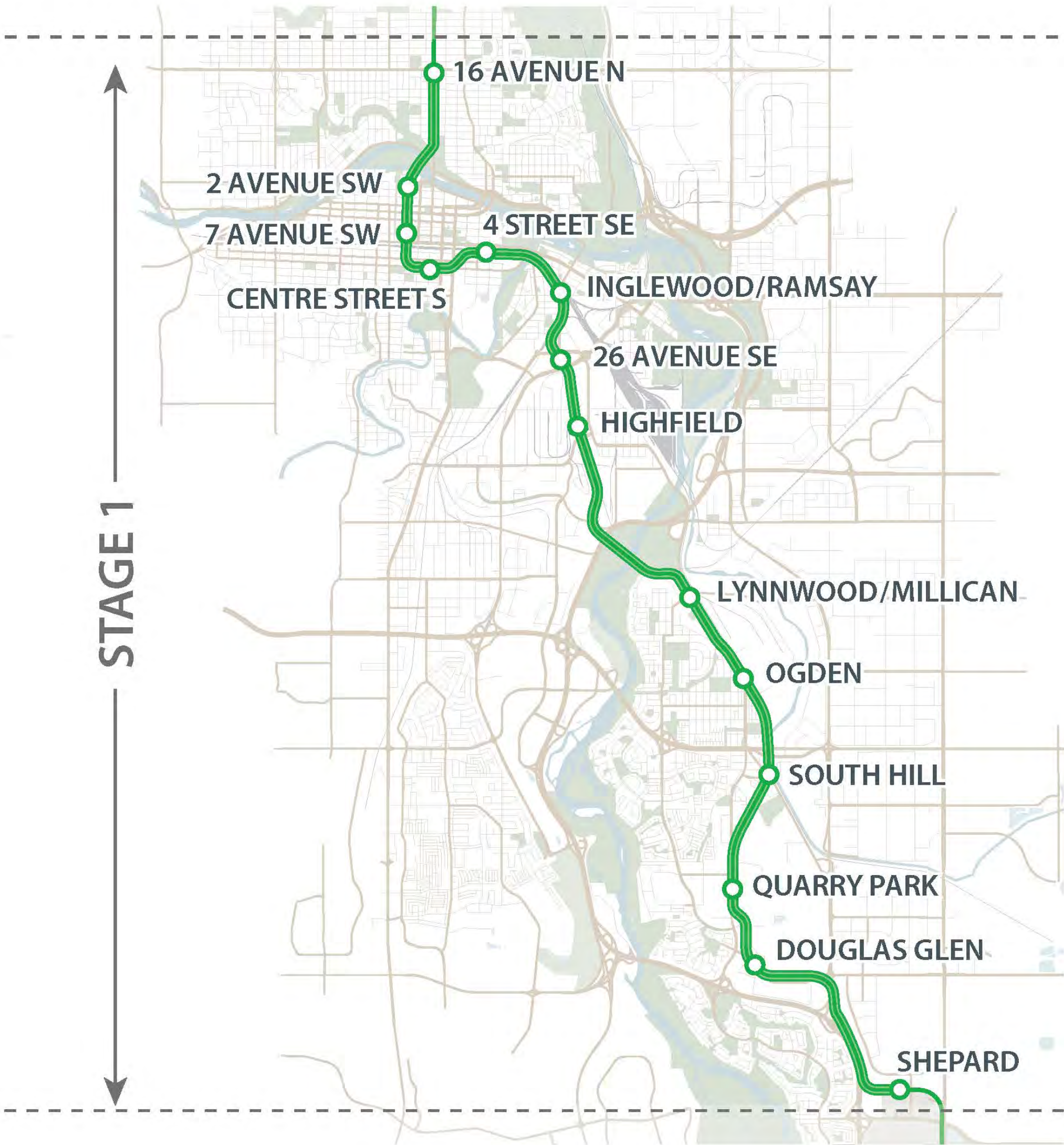
# 2017 approved Stage 1 alignment

## Green Line Stage 1 will deliver the first 20 km of LRT track

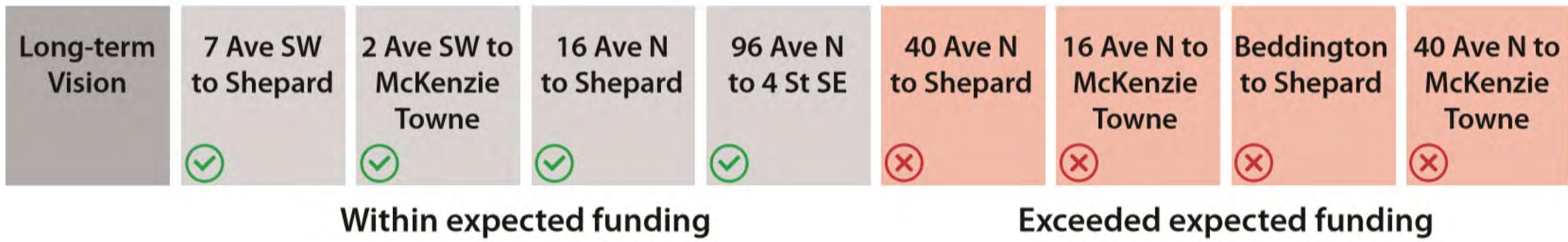
Stage 1 will be the longest and most complex LRT line ever built in Calgary at a single time. Like the Red and Blue lines, the Green Line will be built in stages as funding becomes available.

In 2017, the Council-approved the Stage 1 alignment from 16 Avenue N to 126 Avenue S.E. This alignment planned to deliver:

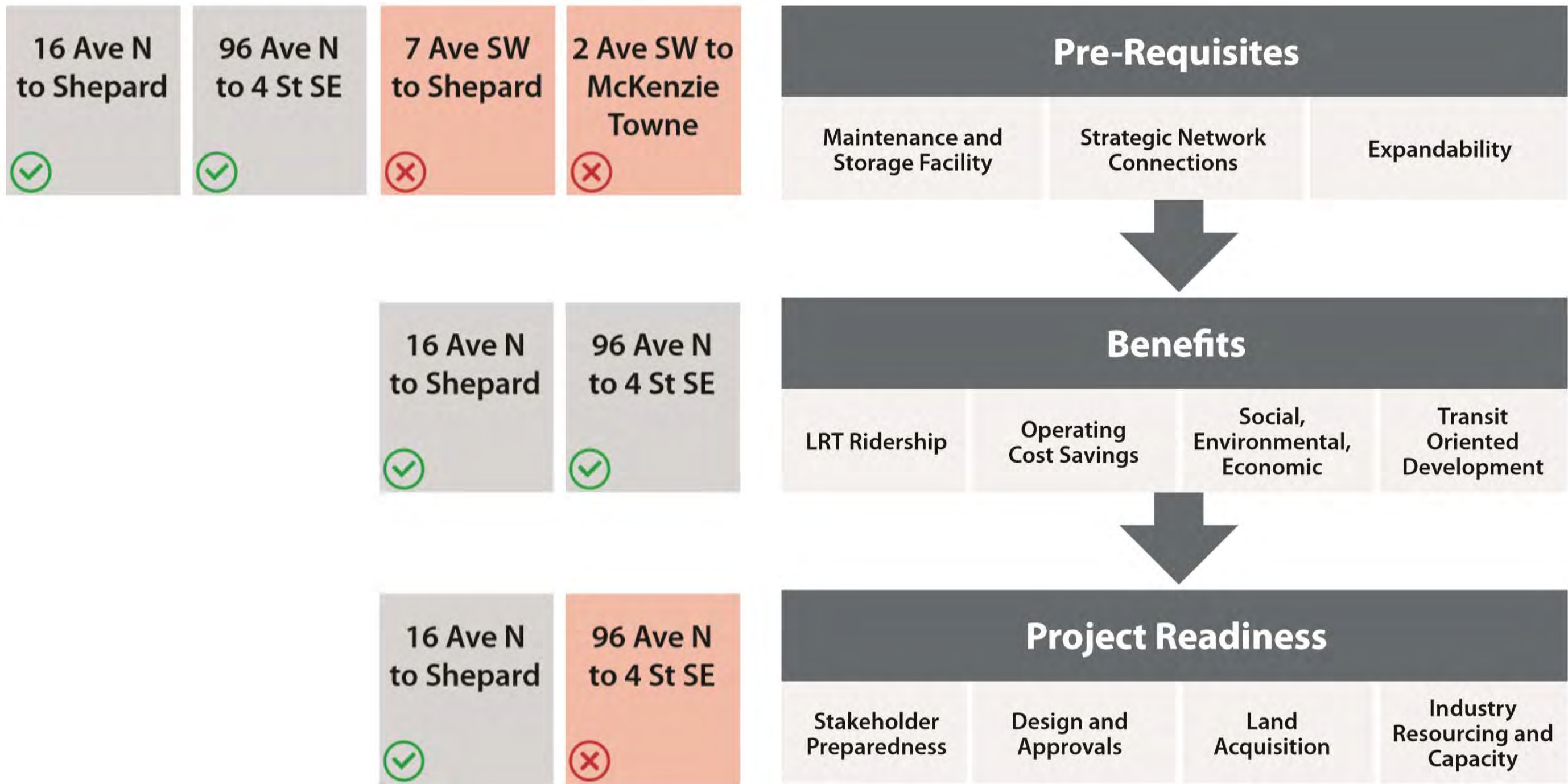
- 14 stations
- 4 km of tunnel and four underground stations in the Centre City
- Maintenance and storage facility at the Shepard station
- A system run time of 34 minutes, from Shepard to 16 Avenue N



The Stage 1 alignment was selected after considering several different staging options:



## How we determined Stage 1 in 2017





# Evaluating options for a revised Stage 1

The Green Line team has been undertaking a planning process to evaluate and identify a revised Stage 1 alignment that can be built within our budget of \$4.9 billion, minimizes project risks and helps achieve the project vision.

To do this, the team reviewed the whole Council Approved Stage 1 alignment from 16 Avenue N to Shepard to find cost reductions.

## Stage 1 Evaluation

**Goal:** Review Stage 1 from 16 Avenue N to Shepard focused on reducing risk, controlling cost and improving customer experience while respecting the community the project is moving through.




Options evaluated for Stage 1 include the following in the Centre City:

- Shortening the length of the tunnel
- Reducing the number of underground stations
- Surface running trains on Centre Street N, and along 10, 11 and 12 Avenues S
- Shifting the underground alignment from 2 Street SW to 1 Street SW
- Elevated track through the Centre City
- Bridge over Bow River
- Value Engineering south of 4 Street SE


Outside of the Centre City, the complete Stage 1 alignment was evaluated from a value engineering perspective to reduce cost and deliver greater value.




## Six evaluation criteria



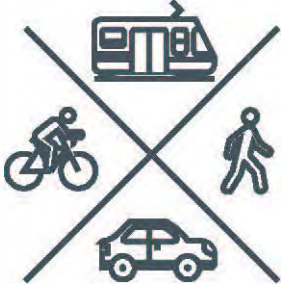
Cost and value



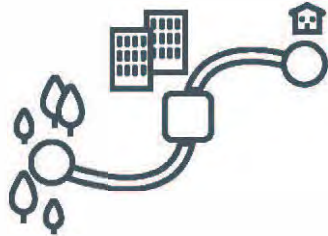
Connecting people to places



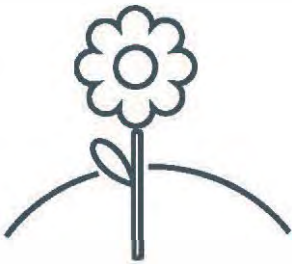
Risk and constructability



Improves mobility



Urban and regional development



Environmental



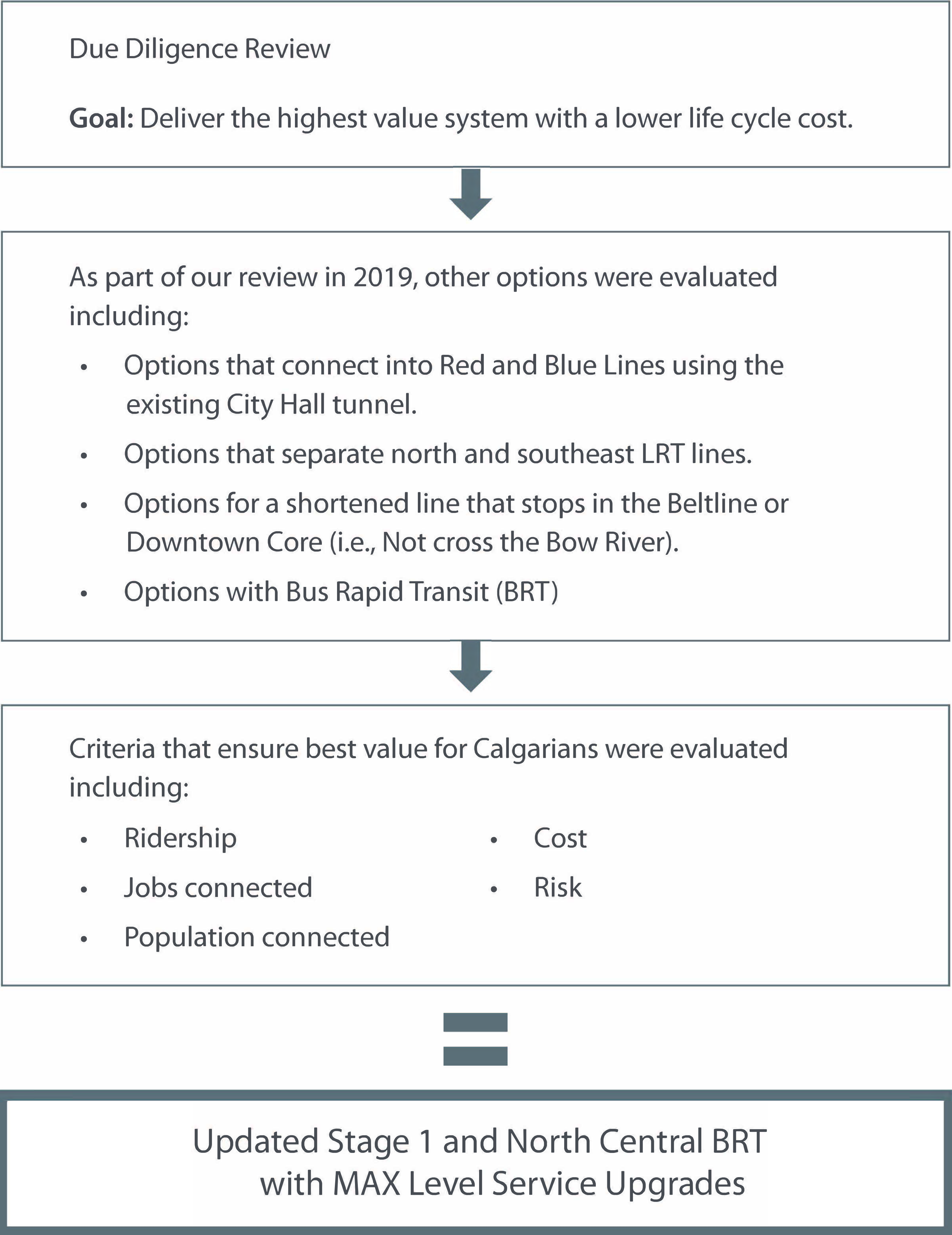
Updated Stage 1 Option



# Determining the updated Stage 1

**The Green Line team completed a review of alignment and staging options to ensure we are delivering the best value for Calgarians within approved funding.**

As part of our review in 2019, the project team reviewed the entire Stage 1 alignment to reduce construction risks and costs within approved funding. The updated Stage 1 alignment met key evaluation criteria including strategic network connections and future expandability, LRT ridership, operating costs, social/environment/economic benefits, transit oriented development opportunities, and project readiness.





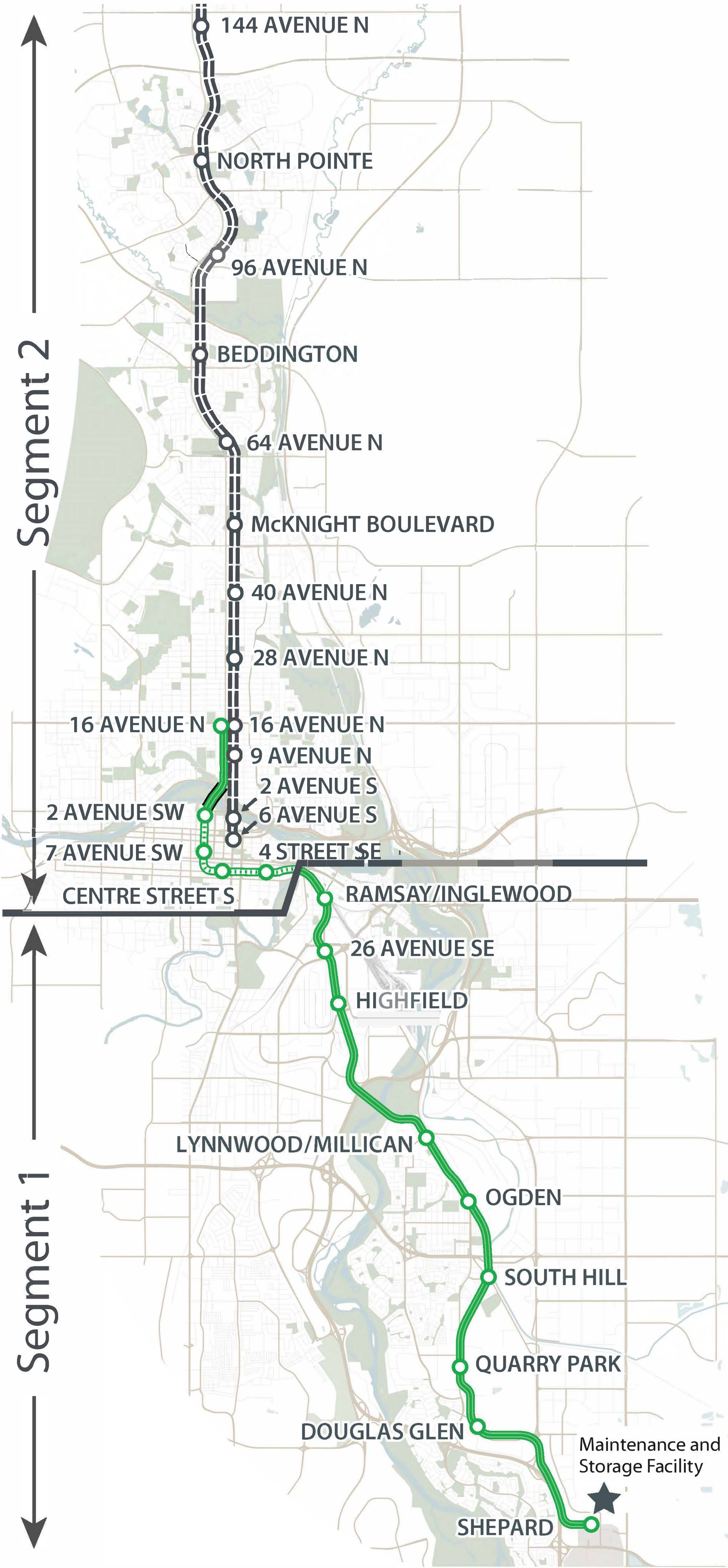
# Updated Stage 1 alignment

**This alignment can be constructed within budget, reduces construction risks, and delivers best value to Calgarians while achieving the Green Line Vision.**

The updated Stage 1 alignment includes the following changes compared to the 2017 approved alignment:

- North Central BRT with MAX level service upgrades
- Surface-running LRT on Centre Street N
- Bridge over the Bow River
- 2.4 km of tunnel and three underground stations in the Centre City
- Shallower tunnel in Beltline on 11 Avenue S

From Elbow River to Shepard, there are no alignment changes from the 2017 Council approved alignment.





# Updated Stage 1 alignment: Changes from 2017 approved alignment

The updated Stage 1 alignment can be delivered within budget because of cost savings from reducing the tunnel length and depth of underground stations, identifying design efficiencies, and maximizing value across the 20 km alignment.

