



Green Line Board

November 2023 Public Progress Report

1.0 Executive Summary

Work with Bow Transit Connectors (BTC), the Development Partner is in progress. Working groups continued their technical information exchange sessions to further develop details on design, and establish agreement on project costs, risk allocation, and overall schedule.

Construction activities remained steady throughout November in the Beltline and Downtown. There were successive weekend closures required for Calgary District Heating Inc. to complete their work on 5 and 6 Avenue, and 3 Street S.W. Green Line ensured that effective mitigation measures were in place to minimize impacts to the travelling public and to maintain building access during this phase.

Construction work at the 78 Avenue Project is progressing. Secant piling work began after successful completion of the diversion embankment works. Canadian Pacific Kansas City (CPKC) Rail plans to start track work late December 2023 and the train traffic at the 78 Avenue location is expected to be shifted to the diversion track in early 2024.

On November 8 Green Line hosted a community event in Ramsay to celebrate the start of demolition of the Lilydale factory. The event was attended by community members, local businesses, and the media. It garnered significant media attention and excitement in the community, and our Instagram Reel was our most popular to date with a reach of 68,119 and 250 interactions.

1.1 Construction Highlights

BDURP Construction Activity

Utility relocation work continued in the month of November within the Beltline and Downtown.

- Deep and shallow utility relocation work continues in the Beltline and Downtown. Deep utility relocation work at the intersection of Olympic Way and 11 Avenue S.E. has been completed and the intersection is partially open to traffic. Green Line built an alternate access to a parking lot from Olympic Way, north of 11 Avenue S.E. to improve the flow of traffic through the construction work zone in Beltline East during the Red Line shut down period. Similarly, the intersection of 12 Avenue S.E. and 6 Street S.E. was opened to minimize impacts to the travelling public.
- The Calgary District Heating Inc. (CDHI) utility relocation work continues at the intersection of 6 Avenue S.W and 3 Street S.W. It is anticipated that most of the major shallow utility relocation work in Downtown will complete by December 2024.



Looking east at CHDI work in Downtown (6 Avenue S.E.).



Looking north at the Remington access construction work, north of Olympic Way S.E., and 11 Avenue S.E. intersection

The following tables summarize utility relocation works that continued throughout the month of November, with a look ahead at planned construction activities for the month of December:

Beltline		
Construction activity	November	December
ENMAX Transmission cable pull on 10 Avenue S.W. and 11 Avenue S.W.	Underway	Continues
ENMAX manhole installation at the intersection of Olympic Way S.E. and 11 Avenue S.E.	Underway	Expected Completion
Whissell installation of sanitary, storm and feedermain at 12 Avenue S.E. and 6 Street S.E.	Completed	-
Whissell installation of feedermain at Olympic Way and 11 Avenue S.E.	Completed	-

Downtown		
Construction activity	November	December
CDHI scope on 6 Avenue S.W. and 3 Street S.W.	Underway	Continues
ENMAX vault installation at the corner of 6 Avenue S.W. and 1 Street S.W.	Underway	Continues
ENMAX duct bank installation on 3 Avenue S.W.	Underway	Expected Completion

78 Avenue Construction Activity

November saw the completion of weather dependent works including drainage work along the diversion embankment, the tie-in of diversion embankments with existing embankment, laying, and compacting sub ballast, and shaping of the slide slopes. The construction of the embankment was weather dependent and its completion before winter was important for achieving scheduled operation date. This will allow the contractor to progress other components of work on the site over the winter.

The installation of the 78 Avenue secant pile wall started in November.



Looking at the Secant Pile Wall installation works on top of the newly constructed 78 Avenue diversion track embankment.

Demolitions

Four demolition projects are underway and are expected to be complete by end of 2023.

1.2 Program Status Dashboard

The table below provides the program status dashboard update for November 2023, including the overall program status and a comparison to the previous month.

Functional Area	November Status	October Status	Comments
Health & Safety	●	●	<ul style="list-style-type: none"> 23 safety inspections were conducted by the Green Line Project Team in the month of November. There were four (4) safety incidents, including three near misses and one property damage. No injuries were reported. One safety stand down was held after the property damage incident to identify improvements.
Public Affairs	●	●	<ul style="list-style-type: none"> Connected with 138 businesses, residents, and key stakeholders in November.
Schedule	●	●	<ul style="list-style-type: none"> Work on key program activities is progressing.



Functional Area	November Status	October Status	Comments
Cost			<ul style="list-style-type: none"> Green Line continues to proactively monitor program costs. Currently advancing design and negotiating risk allocations, price, and the project schedule with BTC as part of the Development Phase to align on project cost.
Environmental			<ul style="list-style-type: none"> One environmental spill (approximately 11 L glycol) occurred during the reporting period. Environmental and geotechnical due diligence investigations and fish spawning surveys were performed by BTC in November 2023 and are expected to be completed in December 2023.
Quality			<ul style="list-style-type: none"> Program Quality Management Plan implementation continued with oversight of BDURP and 78 Avenue construction quality and LRV Supply project quality compliance.
*Definitions of the dashboard statuses can be found online in the Monthly board report and financial summary legend .			

1.3 Financial Summary as of November 30, 2023

Green Line continues to monitor the financial position of the program.

Category [1]	Committed Cost	Cost to Date	Cost Year to Date
Owner's Cost	94,683,553	94,683,553	14,478,222
Design & Engineering [2]	416,274,067	378,565,950	111,513,044
Construction, Land & Other Assets [2]	623,573,140	544,020,580	87,050,542
Bus Rapid Transit	5,846,780	5,846,780	1,203,484
Grand Total	1,140,377,540	1,023,116,863	214,245,292

[1] Details on specific inclusions can be found online in the [Monthly board report and financial summary legend](#).

[2] Adjusted as of October 2023 to shift the costs of Development Phase from Construction, Land & Other to Design & Engineering

1.4 Achievements and Milestones

Upcoming
Q1 2024 - Track work at 78 Avenue S.E. Grade Separation anticipated completion

Work on key program activities is progressing.

1.5 Risk Management

Risks and opportunities are continually monitored by Green Line, some key risks of note from November 2023 are:

- Utility relocation works in Beltline and Downtown are ongoing in busy traffic corridors, which impacts the travelling public and pedestrians. Green Line continues to proactively engage and notify stakeholders of potential construction related impacts (e.g., road closures) and work actively with City



business units on a regular basis to optimize traffic control/lane closures and assist with traffic management in Beltline and Downtown overall.

- Construction of the 78 Avenue Project is ongoing in the community of Ogden. The project has a tight footprint and is located between the residential areas and the very active Canadian Pacific Kansas City Rail (CPKC) mainline carrying approximately 28 trains per day. Adequate safety measures are in place to ensure the safety of the workers/residents, and to avoid any interruption to CPKC’s rail operations. Similarly, proactive measures are planned to minimize quality of life impacts to the nearby residents.

1.6 Public Affairs

Construction activities remained steady throughout November in the Beltline and Downtown. There were successive weekend closures required for Calgary District Heating Inc. (CDHI) to complete their work on 5 and 6 Avenue, and 3 Street S.W., which resulted in traffic delays in the network. Green Line worked with CDHI contractors to maintain building access and provide alternative parking in a nearby public parkade during this construction phase.

In Ogden, secant piling work began for the diversion tracks in the CPKC alignment, and while work has been disruptive for residents, the number of public inquiries has generally been low. Concerns about construction traffic on residential roads, namely 26A Street S.E. continued to be raised, but these issues have declined since the fill material deliveries were completed. Proximity of some homes to construction in the area has led to noise complaints from the back-up alarms on equipment. Members of the Green Line team have been meeting directly with concerned residents on site to assess the impacts and discuss opportunities with the contractors to minimize the noise, where possible.

In November, BTC progressed a series of due diligence investigations, working collaboratively with Green Line to coordinate with other construction activities and traffic accommodations.

Green Line led its monthly construction outlook for Beltline and Downtown to inform residents and businesses about the anticipated impacts and at the request of a particularly impacted downtown property, provided an opportunity for a tenant Q&A. Green Line participated in the semi-annual community partners update hosted by Calgary Stampede and Calgary Municipal Land Corporation, and provided community updates in Ogden and Riverbend. The team also supported ongoing planning for 2024 Calgary Marathon by facilitating introductions and connecting event organizers with utility and project teams working in Beltline.

In addition to the seven construction notices sent to more than 407 interested parties (property owners, property managers, community organizations, businesses, and residents) in the Beltline, Downtown, and Ogden, the direct business and community outreach for November 2023 is summarized below.

Outreach Activity	Activity (November)
Business outreach*	106
Residential/property outreach*	18
Key stakeholder/partner meetings	14
Email/311 requests	10
Information sessions/events	6

* Outreach includes calls, meetings, and on-site visits.



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On November 23 Green Line launched a public survey to solicit feedback from Calgarians in advance of main construction beginning in 2024. This was promoted on our social media channels and via our newsletter distribution list.

2.0 Health & Safety

23 inspection/site visits were conducted by the Green Line Project Team in the month of November. There were nine (9) incidents in the month of November. Three near misses, one property damage, and four safety non-conformances.

- A Geotech Drilling worker was operating a skid steer with forks and contacted a fence post resulting in it being pushed 5 degrees from plumb. The post was repositioned back to its correct location. No visible damages to post, skid steer or the portable toilet. The incident was reported.
- During night operations an individual from the public walking by kicked a glass liquor bottle across the street causing it to shatter on the ground in front of a rig. The individual then proceeded to walk towards a no parking sign and kicked it towards an oncoming third party vehicle. 911 was not contacted due to the individual and third-party vehicle quickly leaving the area. BTC Supervision and Safety were notified of incident.
- In an isolated incident, an individual exiting the Bow Valley Square parkade on 6 Avenue S.E. between 1 and 2 Street S.E. had difficulties following temporary lane closures. The temporary traffic pattern change was set up as per the traffic management plan. Calgary Green Line Senior Project Manager and Senior Project Engineer responsible for the work were notified about the incident. To prevent further incidents, additional cones were added to the pattern change and communication regarding the temporary pattern change was distributed to the buildings connected to the parking garage.
- Core Drilling truck driver attempted to turn the tandem water truck around in a congested area without waiting for the spotter and pushed a fence post over. BTC Supervision and Safety were notified of the property damage. A safety stand down was completed on site and the requirement for spotters was discussed. The fence post was put back in its original position and landlord notified.

The four safety non-conformances were related to workers not wearing appropriate PPE (glasses and hard hats). Project Managers and Site Foreman for the crews were notified of the non-conformances and corrective and preventative measures have been implemented.

3.0 Environmental

One environmental incident occurred when 11 L of glycol was released to the ground on November 16, 2023 during due diligence drilling activities due to a damaged coolant hose on the hydrovac. The spill was contained using a spill kit, cleaned up with the hydrovac, and reported.



As part of the Development Phase, Green Line and BTC continue to discuss the due diligence requirements. Environmental and geotechnical due diligence investigations, fish spawning surveys in the Bow and Elbow Rivers, and as supplemental baseline noise and vibration monitoring were completed in November 2023. Drilling for the environmental and geotechnical due diligence investigations will be completed in December 2023.