



Green Line Board **Report**

Item 8.1
GLB2022-1079

Green Line Board July 2022 Progress Report

ISC: UNRESTRICTED



1 Executive Summary

1.1 July Highlights

Following the Request for Qualifications (RFQ) for construction of Phase 1, from Shepard to Eau Claire, the Green Line Board approved Bow Transit Connectors (Barnard Constructors of Canada, LP, Flatiron Constructors Canada Ltd., and WSP Canada Inc.) and City Link Partners (Aecon Infrastructure Management Inc., Dragados Canada Inc., Acciona Infrastructure Canada Inc., Parsons Inc., and AECOM Canada Ltd.) to advance to the Request for Proposal (RFP) stage. The approval and announcement of the two shortlisted proponents represents a critical milestone in the procurement process.

Workshops with the Owner's Engineer (OE) towards the finalization of the performance-based Technical Performance Requirements (TPRs) are ongoing. The TPRs represent a significant scope of work that will form part of the RFP when released.

Beltline Downtown Utility Relocation Project (BDURP) construction activities in Beltline East were successfully coordinated between area partners to support access requirements for traffic and pedestrians for Calgary Stampede 2022.

Utility relocation work in Beltline East resumed during the last week of July 2022 with the closure of the intersection of Olympic Way and 12 Avenue SE. Detours were designed and implemented after extensive coordination with area stakeholders to ensure the impacts of the closure is minimal to local businesses and the public. Traffic management coordination efforts will continue, including engagement of Calgary Police, to further reduce the impacts of ongoing detours, especially during major events. Green Line will continue to monitor the detour performance and document lessons learned to further improve future road closures for construction. Enmax, Atco, and Telus relocation work also resumed operations as a part of this closure.

Next Month Look Ahead

With the approval and announcement of the two shortlisted proponent teams, Green Line is focused on completion of the Request for Proposal (RFP) and TPR documents for the DBF-DP, which is anticipated to be released by the end of Q3 2022.

In parallel to the above noted DBF-DP efforts, the following BDURP construction work are also planned in August 2022:

- Continued installation of utility casing on 12 Avenue SE between Olympic Way and 6 Street SE
- Installation of the sanitary and storm trunk from 5 Street SE across to Olympic Way and into the intersection
- Start work on the new sanitary and water line connections from 12 Avenue into Olympic Way SE
- Continued installation of ATCO and TELUS work into the Olympic Way and 12 Avenue SE intersection
- Continued Enmax distribution line work within the Olympic Way and 12 Avenue SE intersection
- Completion of an ATCO gas line relocation on 3 Avenue SW between 2 Street and 3 Street SW



1.2 Program Status Dashboard

Functional Area	Overall Program Status	Last Month's Status	Comments
Health & Safety	●	●	<ul style="list-style-type: none"> There were no safety incidents in July 2022. Green Line has had no Lost Time Incidents (LTI), Medical Aid (MA) or First Aid (FA) incidents in the past year continuing a positive trend.
Environmental	●	●	<ul style="list-style-type: none"> Site specific Phase 2 Environmental Site Assessment (ESA) work is ongoing. Work at the Mustard Seed site commenced in July 2022 and is expected to be completed next period. Field work is complete for Eau Claire and Victoria Park and Phase 2 ESA reports were submitted.
Stakeholder Relations	●	●	<ul style="list-style-type: none"> Green Line connected directly with more than 100 businesses and key stakeholders in July 2022 to share the RFQ shortlist announcement, communicate upcoming BDURP construction works, and coordinate construction activities and detours.
Schedule	●	●	<ul style="list-style-type: none"> Phase 1 DBF-DP procurement activities are on schedule. BDURP Beltline East construction and LRV mock-up construction is on schedule.
Cost	●	●	<ul style="list-style-type: none"> Green Line continues to proactively monitor program costs. Appropriate mitigation measures for various key risks continue to be established, reviewed, and implemented.
Quality	●	●	<ul style="list-style-type: none"> Program Quality Management Plan implementation continued with ongoing review of Phase 1 RFP quality requirements, oversight of Enabling Works quality compliance, and reviews of the LRV supplier quality report.

*Definition of legend for the dashboard in Appendix 1

1.3 Financial Summary as of end of July 31, 2022

Category	Committed Cost	Cost to Date	Cost Year to Date
Owner's Cost	73,597,939	73,508,478	8,232,392
Design & Engineering	280,114,919	256,343,394	19,892,128
Construction, Land & Other Assets	500,726,610	424,852,767	22,332,638
Bus Rapid Transit	4,490,494	4,490,494	1,196,588
Grand Total	858,929,962	759,195,134	51,653,745

*Details on specific inclusions in Appendix 1.



1.4 Milestone Schedule

As work progresses for Green Line, near term milestones and achievements for the program include:

- July 2022 – Phase 1 DBF-DP RFQ Shortlisted Applicants approved (Complete)
- August 2022 – Delivery Partner RFP release
- Q3 2022 – Completion of the LRV mock-up
- Q3 2022 – Phase 1 DBF-DP RFP release
- Q4 2022 – Delivery of LRV mock-up to Calgary

1.5 Risk Management

Risk is continually monitored by Green Line and below are some of the key risk items that continue to be addressed by the team:

- Green Line continues to monitor financial market changes due to the current economic climate.
 - Regular due diligence is ongoing.
- The market is unwilling to accept certain risks that have been transferred to the private sector in similar projects.
 - Green Line is proceeding with a strategy to utilize a DBF with Development Phase to best allocate, mitigate, and manage risks. This strategy takes into consideration successful market precedents.
 - Utility relocation works that are currently underway provide higher confidence to the prospective applicants in minimizing risks and encourage active participation through the procurement process.
- Utility relocation works in Beltline and Downtown are ongoing in tight working areas, which can potentially impact travelling public and pedestrians.
 - Green Line continues to proactively engage and notify stakeholders of potential construction related impacts (e.g., road closures).

1.6 Stakeholder Relations

Direct stakeholder outreach for July 2022 is summarized below. In addition to the direct outreach, construction notices were sent to more than 50 stakeholders in Beltline and Downtown as well as posted on the Green Line website and social media channels for ongoing reference.

Stakeholder Activity	Quantity
Business outreach*	66
Residential/property outreach*	11
Email/social/311 requests	13
Key stakeholder/partner meetings	34
Information sessions/events	0

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



Business outreach continued in Beltline and Downtown to raise awareness about the BDURP project and potential construction impacts, and to introduce members of Green Line’s community and business relations team. Targeted stakeholder meetings were held to share specific construction plans and to discuss potential business continuity opportunities for upcoming utility works.

Green Line supported local business and community events on Canada Day, in the community throughout Stampede and at Inspire Fest sharing project information and providing interactive opportunities including the Green Line prize wheel.

The Green Line newsletter went out on July 29 to our 6,322 subscribed stakeholders. Updates to stakeholders included information on the approval of the two shortlisted proponents from the RFQ and BDURP construction information.

2 Health and Safety

2.1 Overall Program

There were no safety incidents on Green Line for the month of July 2022.

Green Line continued to provide oversight to ensure safety compliance by Green Line staff, consultants, and contractors at the Beltline/Downtown utility relocation construction and Lilydale drilling sites.

Overall Program Metrics

The following tables contains the recorded incidents and non-compliance for the Program:

Table 1 and Table 2 provide additional information on safety incidents and safety metrics.

Table 1: Green Line Safety Incident Frequency Statistics

Performance Indicator		Green Line & City Staff	Contractors	Green Line, City Staff & Contractors
TRIFR: Total Recordable Injury Frequency Rate	per 200,000 hrs	●	●	●

** Statistics based on a rolling 12-month period from July 31, 2021, to July 31, 2022,*

Table 2: Overview of Safety Metrics for the 2022 Calendar Year as of July 31, 2022

Metric	July 2022	2022 YTD Incidents	Days since Last incident
Lost Time Incident	0	0	1187
Medical Aids	0	0	859
First Aids	0	0	415
Near Misses	0	2	61
Safety Non-Compliance	5	11	9
Property Damages	0	1	101



Safety targets continue to be met and safety will continue to be a focus for Green Line as BDURP construction activity increases in Beltline East.

In addition, Green Line is actively preparing supporting records for the 2022 Certificate of Recognitions (COR) external audit beginning in September 2022. COR is a mandatory safety requirement for The City to conduct an external audit every three years to maintain COR certification. The audit ensures Green Line compliance with The City's Safety Management System. The external auditor will provide their report before the end of the year and a safety audit action plan will be developed to address any findings.



Appendix 1 – Dashboards & Financial Summary Legends

Dashboards Legends

Health and Safety	<p>Zero LTIs or</p> <p>Scheduled monthly site inspections completed with < 2 missed or Joint OH&S committee meetings and inspections on track or</p> <p>Green Line COR Internal Maintenance Audit completed with minor findings or all mandatory training complete</p>	<p>One LTI or</p> <p>≤5 scheduled site inspection not completed or missed a Joint OH&S committee meeting or inspection or</p> <p>Green Line COR Internal Maintenance Audit completed with major findings or <90% mandatory training completed</p>	<p>More than one LTI or</p> <p>>5 scheduled site inspections not completed or multiple Joint OH&S committee meetings or inspection not completed or</p> <p>Green Line COR Internal Maintenance Audit failed or less than 75% mandatory training complete</p>
TRIFR: Total Recordable Injury Frequency Rate	<p>Per 200,000 hrs</p> <p>≤1.33</p>	<p>Per 200,000 hrs</p> <p>>1.33 and ≤2.66</p>	<p>Per 200,000 hrs</p> <p>>2.66</p>
Environmental	<p>Greenline environmental requirements and permits are progressing and adhere to Municipal/Provincial/Federal Obligations.</p> <p>Quality of life impacts (noise, vibration, dust, light) resulting in minimal complaints from stakeholders or elected officials.</p>	<p>Specific Environmental permits or requirements are in progress; reliance on approving authorities timelines may cause temporary delays. Delays not expected to impact critical path.</p> <p>Quality of life impacts (noise, vibration, dust, light) resulting in moderate complaints from stakeholders or elected officials.</p>	<p>Contract requirements conflict or falling to meet the Municipal/Provincial/Federal obligations. Risk to schedule critical path or budgets.</p> <p>Quality of life impacts (noise, vibration, dust, light) resulting in significant public complaints from stakeholders or elected officials.</p>
Stakeholder Relations	<p>Minimal risk of reputational damage or localized stakeholder issues</p>	<p>Moderate risk of reputational damage or Multiple stakeholder issues that require urgent action</p>	<p>Severe risk of reputational damage or Major risk with funding partners</p>
Schedule	<p>No delay to critical activities or critical milestones</p>	<p>Delay to intermediate milestones by less than two weeks</p>	<p>Delay to critical activities or critical milestones</p>



Cost	Costs forecast within the budget	Costs forecast to be over budget by less than 35% of retained contingency	Cost forecast to be over budget by more than 35 % retained contingency
Quality	Quality requirements adequate/defined or in progress or Audits performed per plan with no/minor findings or NCR identification and resolution are within expectations	Quality requirements not adequate/defined in at least one area or Audits performed per plan with one or more major findings or NCR identification and resolution are not trending downward	Quality requirements not adequate/defined in multiple areas or Audits not performed or performed with many major findings or NCR(s) remain open that impact the safety/security and quality of new infrastructure or would adversely affect the ability to achieve Substantial Completion or MSF Completion

Financial Summary Legend

Owner’s Costs: Include City of Calgary Staff Time, Communications, Software, and General Corporate Overheads and Inter- Business Unit costs.

Design & Engineering: Includes all OE costs as well as general Project Consultants costs.

Construction, Land & Other Assets: Includes Land, Enabling Works, and Quick Win build costs.

Bus Rapid Transit: Includes all costs related to the Bus Rapid Transit work for Green Line.

Committed Costs represent issued PO values only for Design & Engineering and Construction, Land & Other Assets. For Owner’s Costs and Bus Rapid Transit these are primarily costs incurred to date.