



# Green Line Board **Report**

ISC: Unrestricted

## Green Line Board April Public 2022 Progress Report

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# 1 Executive Summary

## 1.1 April Highlights

The Phase 1 DBF with Development Phase (DBF-DP) Applicants' Meeting was held on April 20, 2022 and approximately 55 individuals from 19 organizations attended online or in person.

The Conceptual Design Review (CDR) for the Light Rail Vehicle (LRV) is ongoing. The CDR represents approximately 30% design of the LRV, which is on track with the May milestone.

The Beltline Downtown Utility Relocation Project (BDURP) continues to move forward with construction activities of the deep and shallow (by third-party providers) utility relocations in Beltline East.

Following the release of the Request for Qualifications (RFQ) on March 31, 2022, project updates were provided to Phase 1 community stakeholders and Business Improvement Areas in April. The team held 11 external stakeholder meetings and nearly 20 business interactions during the month of April.

## Next Month Look Ahead

Green Line is preparing for the RFQ evaluation process, including finalization of an evaluation manual, training for evaluation team members, and continuing preparation work for the RFP and Development Phases. This includes detailed review and consideration of market precedents for similar projects and discussions with other relevant project owners.

Remainder of the technical submissions for the CDR will be provided by the LRV Supplier and workshops will be held between Green Line and the LRV Supplier to close out CDR by May 12, 2022.

An initial BDURP information session for area stakeholders is scheduled for May 3, 2022.

## 1.2 Project Status Dashboard

Functional Area	Overall Program Status	Last Month's Status	Comments
Health & Safety			Return to work at Rocky Mountain Plaza began on April 4, 2022. Protocols such as recommended mask wearing are being followed.  There were both a non-conformance to procedure and a minor property damage/near miss on the BDURP site in April. Safety protocols were followed immediately and reviewed with all crews.
Environmental			Site specific Phase 2 Environmental Site Assessment (ESA) work is ongoing. Field work for two properties in the Downtown area is complete. Field work for two properties in the Southeast area is expected to be complete by the end of May.

Functional Area	Overall Program Status	Last Month's Status	Comments								
			All Phase 2 ESAs are expected to be complete by the end of June 2022.								
Stakeholder Relations	●	●	In advance of BDURP construction ramping up in Beltline East in April, over 80 stakeholders, including businesses and residents, were notified. Pre-construction planning for BDURP construction and stakeholder outreach continues. A virtual information session is scheduled for May 3, 2022 on upcoming BDURP construction in the Beltline.								
Schedule	●	●	The RFQ was released in line with the overall procurement schedule. BDURP Beltline East construction has commenced. Schedule is on track to meet 2022 milestone dates.								
Cost	●	●	Green Line continues to proactively monitor project costs. Mitigation measures continue to be reviewed and implemented.								
Quality	●	●	The implementation of the Program Quality Management Plan continued with ongoing orientation for Green Line team and review of contractor and supplier quality plans.								
<b>LEGEND*:</b>	On Plan	●	At Risk	●	Off Plan	●	Not Started	●	Not Applicable	●	N/A

\*Definition of legend for the dashboard in Appendix 1

### 1.3 Financial Summary as of end of April 30, 2022

Construction, Land & Other Assets	Committed	Cost to Date	Cost Year to Date
Owner's Cost	69,865,716	69,776,255	4,500,170
Design and Engineering	279,521,918	247,682,649	11,231,383
Construction, Land & Other Assets	490,846,929	409,925,772	7,405,642
Bus Rapid Transit	3,458,360	3,458,360	164,453
<b>Grand Total</b>	<b>843,692,923</b>	<b>730,843,036</b>	<b>23,301,647</b>

\*Details on specific inclusions in Appendix 1.

### 1.4 Milestone Schedule

Near term milestones and achievements for the project include:

- April 2022 – BDURP – Beltline East deep utility relocation commenced (Achieved)
- June 2022 – Phase 1 Development Partner RFQ Submissions Due
- Q3 2022 – Phase 1 DBF-DP RFP Release



## 1.5 Risk Management

Below are some of the key risk items that continue to be addressed by the team:

- RISK 1: Green Line is competing with other North American projects for the Phase 1 DBF-DP procurement potentially leading to a limited number of willing/capable bidders.
- MITIGATION: Engaging with experienced large-scale consulting firms as well as niche experts to help promote, develop and implement DBF-DP strategy collaboratively with potential bidders
- RISK 2: Potential impact on pricing due to relatively higher recent market and economic climate changes.
- MITIGATION: Continuing to assess market changes with regular due diligence ongoing with external consultants to validate key inputs and assumptions to ensure alignment with current the market trends.

## 1.6 Stakeholder Relations

Direct stakeholder engagement summary for April 2022.

Stakeholder Activity	Quantity
Business outreach	43
Residential/property outreach	19
Email/social/311 requests	8
Key partner meetings	14
Information sessions/events	2

## 2 Health and Safety

### 2.1 Overall Program

Workplace related safety incidents are being documented and addressed in a timely manner. A resource link providing workplace health and safety related information was shared with Green Line to improve awareness of how to report safety incidents.

The Green Line team continued to provide oversight to ensure safety compliance by Green Line staff, consultants, and contractors at the Beltline/Downtown utility relocation construction sites. This also included review of pedestrian and traffic safety adjacent to the active construction work zones.

There were two safety incidents on the Green Line project for the month of April 2022:

- Minor property damage occurred on April 21, 2022, when a zoom boom knocked over a street sign. The same incident was also a near miss because there was a construction worker nearby. A comprehensive root cause analysis was completed and preventive/corrective actions developed. Measures taken to avoid recurrence included a review of a proper spotter location and using a smaller piece of equipment to operate in the tight working areas.
- On April 25, 2022 two contractors were observed guiding a trench box placement with their hands and not using tag lines. This is considered a non-conformance to standard procedure. Safety protocols



were reviewed and preventive/corrective actions were taken immediately to ensure compliance with the project safety procedures.

### Overall Program Metrics

The following chart contains the recorded incidents for the rolling 12-month period as of April 30, 2022:

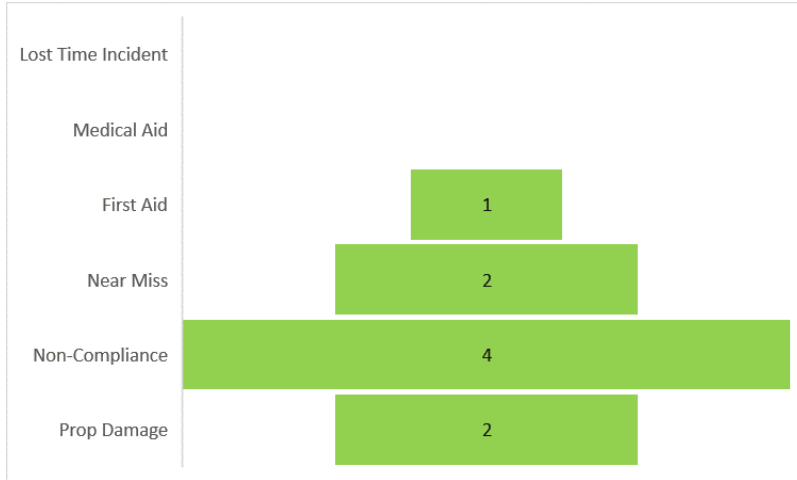


Table 1 and Table 2 provide additional information on safety incidents and safety metrics.

**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 (MA +LTI)	per 200,000 hrs	●	●	●
	per 1,000,000 hrs	●	●	●
LTIFR: Lost Time Injury Frequency Rate	per 200,000 hrs	●	●	●
	per 1,000,000 hrs	●	●	●

*\* Statistics based on rolling 12-month period from April 30, 2021 to April 30, 2022*

**Table 2: Overview of Safety Metrics for the 2022 Calendar Year as of April 30, 2022**

Metric	February	2022 YTD Incidents	Days since Last incident
Lost Time Incident	0	0	1095
Medical Aids	0	0	767
First Aids	0	0	323
Near Misses	0	0	9
Safety Non-Compliance	0	1	5
Property Damages	0	0	10



## Appendix 1 – Dashboards Legends

	On Plan	At Risk	Off Plan
<b>Health and Safety</b>	Zero LTIs or Scheduled monthly site inspections completed with < 2 missed or Joint OH&S committee meetings and inspections on track or Green Line COR Internal Maintenance Audit completed with minor findings or all mandatory training complete	One LTI or ≤5 scheduled site inspection not completed or missed a Joint OH&S committee meeting or inspection or Green Line COR Internal Maintenance Audit completed with major findings or <90% mandatory training not completed	More than one LTI or >5 scheduled site inspections not completed or multiple Joint OH&S committee meetings or inspection not completed or Green Line COR Internal Maintenance Audit failed or less than 75% mandatory training complete
<b>TRIFR: Total Recordable Injury Frequency Rate (MA +LTI)</b>	Per 200,000 hrs <0.12 Per 1,000,000 hrs <0.60	Per 200,000 hrs ≥0.12 Per 1,000,000 hrs ≥0.60	Per 200,000 hrs >0.30 Per 1,000,000 hrs <1.50
<b>LTIFR: Lost Time Injury Frequency Rate</b>	Per 200,000 hrs <0.00 Per 1,000,000 hrs <0.00	Per 200,000 hrs ≥0.00 Per 1,000,000 hrs ≥0.00	Per 200,000 hrs >0.13 Per 1,000,000 hrs <0.65
<b>Environmental</b>	Overall environmental requirements are progressing as defined and work plans and budgets are being accurately managed	Specific environmental management subjects are being addressed and progressing; reliance on other project disciplines, information and inputs to complete the work may cause temporary delays	Failing to meet contractually required environmental obligations causing delays and complications for the Contractor and/or Owner
<b>Stakeholder Relations</b>	Minimal risk of reputational damage or Localized stakeholder issues	Moderate risk of reputational damage or Multiple stakeholder issues that require urgent action	Severe risk of reputational damage or Major risk with funding partners
<b>Schedule</b>	SPI ≥ 1.0 or	SPI 0.9-0.99 or	SPI <0.9 or



	No change to critical activities/milestones	Delay of critical milestones by less than 4 weeks	Critical activities delayed by more than 4 weeks
<b>Cost</b>	CPI ≥ 1.0 or Costs forecast within the Budget excluding retained contingency	CPI 0.95-0.99 or Costs forecast to be over Budget and <30% retained contingency	CPI < 0.95 or Cost forecast to be > Budget + 30% retained contingency
<b>Quality</b>	Quality requirements adequate/defined or in progress or Audits performed per plan with no/minor findings or NCR identification and resolution are with 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 Significant non-conformance with contract terms

*Note: Table is currently under review and will be updated in future report.*

### 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.