



## Green Line Board **Report**

**ISC: Unrestricted**

Report #GLB2021-1460

Item #8.1

# Green Line Board August 2021 Progress Report

## Executive Summary

### 1.1 Project Status Dashboard

	Overall Program	Enabling Works	LRVs	Phase 1	Comments
<b>Health &amp; Safety</b>	●	●	N/A	N/A	There were no safety incidents in August. A spike in the Delta variant of COVID-19 has resulted in the volunteer return to work being postponed from September 15 to October 20, 2021.
<b>Environmental</b>	●	●	N/A	●	Contaminated sites remediation and cleanup for several high- risk properties, specifically in the previously titled Segment 1, have been identified and work is now underway (e.g. Schell property). Identification of potential remediation works required in the downtown core and for areas affected by the enabling works continues.
<b>Stakeholder Relations</b>	●	●	N/A	●	No change is expected until the updated Phase 1 project milestones are communicated, uncertainty on schedule continues to impact stakeholder confidence in the project.
<b>Schedule</b>	●	●	●	●	The Program schedule is undergoing a baseline exercise. As part of this effort, the Beltline Downtown Utility Relocation project schedule is under review and required mitigations are also under development.

Cost					<p>Program budget has been updated to reflect the Phase 1 procurement approach. The current Budget is under pressure due to changes in escalation cost factor, functional design development and schedule delays.</p> <p>Project tasks currently underway are performing well against the updated baseline.</p>					
Quality					<p>The Program Quality Management Plan is being finalized. This plan defines program quality requirements and activities and is expected to be completed soon.</p>					
<b>LEGEND*:</b>										
On Plan		At Risk		Off Plan		Not Started		Not Applicable	N/A	

\*Definition of legend for the dashboard in Appendix 1

## 1.2 Project Highlights

Project	Summary of Status this Month	Next Month
Overall Program	Overall Program Plan structure is being finalized to align with the procurement strategy for Phase 1 from Shepard to Eau Claire.	The team will continue to focus on updating the Program schedule to align with the procurement strategy for Phase 1 from Shepard to Eau Claire.
Enabling Works	<p>The remaining Phase 1 Enabling Works PKG-002 (CN Highfield) and PKG-008c (Highfield Blvd Multi-Use Pathway) are expected to be completed by the end of September 2021.</p> <p>Construction Manager has submitted their first draft of the 60% Schedule for the Beltline area to the team for review and are proactively discussing construction sequencing with the Third Party Utilities and other stakeholders.</p>	<p>Business cases to support supplementary enabling works in Calgary SE will continue.</p> <p>Construction Manager for the enabling works will develop a 60% Deep Utility design together with a Class III estimate for the Beltline area as well as a General Expenses estimate for both the entire Beltline and the Downtown projects. Construction Manager will also revise the initial Beltline schedule and develop the first draft of the Downtown projects schedule. Moreover, the Construction Manager</p>

	Owner's Engineer is finalizing the specifications for the relocated Beltline water feeder main procurement and is developing Issued for Tender procurement packages for utility relocations in the Beltline area.	will complete the procurement package for the Beltline water feeder mainline.  Owner's Engineer will develop the Issued for Tender design, specifications and the measurement & payment package for the Beltline Area by the end of September 2021.
LRV	The LRV procurement is proceeding as scheduled with award of a contract planned in the fall of 2021.	Proceed per schedule.
Phase 1	Pre-procurement planning is underway for the Phase 1 Design-Build-Finance (DBF) from Shepard to Eau Claire. In addition, negotiations are underway to extend the current Owner's Engineer contract for Phase 1.	The purchase order for the Owner's Engineer will be executed.  Work is underway to prepare for station integration discussions with property owners.

### 1.3 Financial Summary for August 2021

Category	Committed Cost	Cost to Date	Cost Year to Date
Owner's Costs	63,791,240	62,529,265	12,018,827
Design & Engineering	276,769,562	225,732,691	17,866,720
Construction, Land & Other Assets	468,699,377	385,307,666	25,884,613
Bus Rapid Transit	1,336,151	1,336,151	1,065,988
<b>Grand Total</b>	<b>810,596,331</b>	<b>674,905,773</b>	<b>56,836,147</b>

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

*Design & Engineering: Includes all Owner's Engineer 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.*

## 1.4 Milestone Schedule

Milestone schedule is currently under development. Input from market soundings and various Green Line consultants is being used to forecast a realistic schedule.

Near term milestones for the project include:

- Fall 2021 - LRV Procurement – Contract Award
- Winter 2022 – Beltline Downtown Utility Relocation Project – Construction Started
- Fall 2021 – Baseline Schedule – Complete

## 1.5 Risk Management

Below are some of the primary risk items being addressed by the team:

- Vacancies within the leadership team.
  - Recruitment is underway to fill key vacant positions. The CEO was onboarded in August and focus has shifted to the COO and outstanding director positions.
- Competing pressure in the North American marketplace is potentially limiting the available capacity for the required proponent expertise.
  - Market soundings will be ongoing through the pre-procurement phase to continually evaluate and mitigate this risk. Steps are also being taken to improve the Phase 1 DBF procurement process and documents to make the procurement more attractive to the market.
- Property acquisition and interface timing.
  - Negotiations for land acquisition and station integration are underway at downtown and beltline locations. Exploration of alternative options to avoid property impacts also continues.

The risk register and risk management strategies continue to be reviewed and updated as required.

## 2 Health and Safety

	Overall Program	Enabling Works	LRVs	Phase 1	Comments
Current Period	●	●	N/A	N/A	There were no safety incidents in August. A spike in the Delta variant of COVID-19 has resulted in the volunteer return to work being postponed from September 15 to October 20, 2021.

<b>Last Period</b>	●	●	N/A	N/A	Green Line safety continues to be well managed through COVID-19 pandemic with no safety incidents.					
<b>LEGEND*:</b>	On Plan	●	At Risk	●	Off Plan	●	Not Started	●	Not Applicable	N/A

\*Definition of legend for the dashboard in Appendix 1

## 2.1 Overall Program

The team continued auditing City, Consultant and Contractor compliance against their respective Safety Management Systems and performance.

Development of the Construction Tunnel Safety and Interface Plan continues.

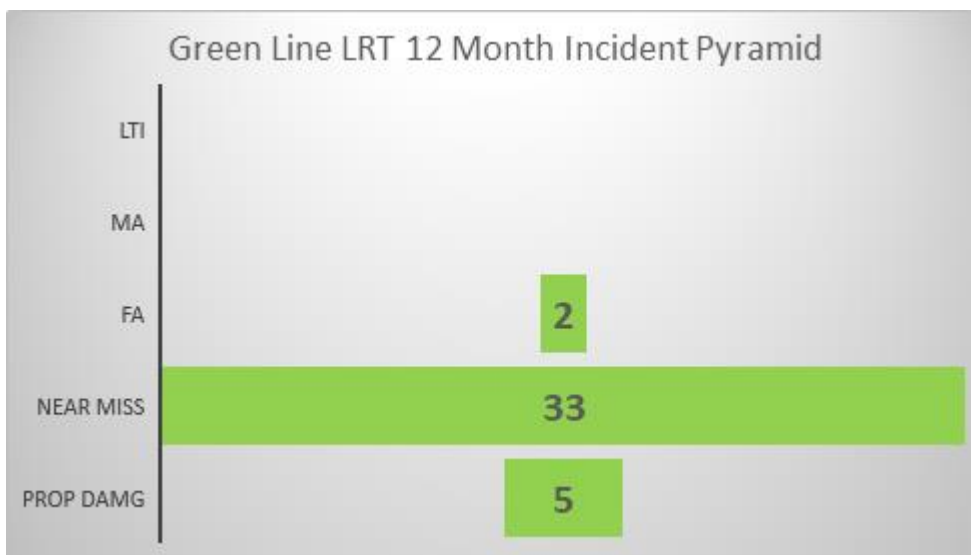
Green Line terms of reference for the Alberta Construction Safety Association annual internal maintenance Safety Audit was received and a subsequent audit will be completed in Q4 of 2021.

**Safety Culture:** The Green Line's strong safety culture is reflected in the passion and quality of safety presentations delivered by Green Line personnel each week which is illustrated in the overall safety KPI metrics below.

**The August 2021 Safety Focus** was on hearing protection and how it should also be applied at home and around the worksite. In addition, the Alberta OH&S August eNewsletter was discussed with all Green Line personnel and covered many areas such as COVID-19 as a workplace hazard, crane safety, and removal of alternate face masks to meet N95 requirements.

### Overall Program Metrics

The following chart contains the recorded incidents for the 12-month rolling average.



**Table 1: Overview of August Safety Metrics for the Program**

Metric	Current Month	2021 YTD Incidents	Days since Last incident
Lost Time Incident	0	0	852
Medical Aids	0	0	525
First Aids	0	1	81
Near Misses	0	31	9
Property Damage/Theft Incidents	0	4	110

There were no safety incidents on the Green Line project for the month of August.

**Table 2: Lost Time Incidents for Reporting Month Details**

Date of Injury	Site/Employer	Lost Time Days	Area of Injury	Incident Description
YYYY/MM/DD	N/A			

There have been no lost time incidents nor medical aids year to date on the Green Line program.

**Table 3: Green Line Safety Statistics**

Performance Indicator		GL City Staff	Contractors	GL 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	●	●	●
<b>* Statistics are based on 12 month rolling period August 31, 2020 to August 31, 2021</b>				

## 2.2 Enabling Works

The team continued safety oversight, with an emphasis on compliance with COVID-19 protocols, and rail safety support for both the CN Track 'n' Tunnel project, the Chemtron utility relocation and access paving work adjacent to the future South Hill station.

Protocols for self-health checks prior to visiting the office or construction sites combined with temperature checks upon arrival at sites have worked well. No Enabling Works were stopped due to suspected or actual positive COVID-19 cases in August 2021.

## 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 GL 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 GL 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 GL 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	Moderate risk of reputational damage or	Severe risk of reputational damage or Major risk with funding partners



	Localized stakeholder issues	Multiple stakeholder issues that require urgent action	
<b>Schedule</b>	SPI $\geq 1.0$ or No change to critical activities/milestones	SPI 0.9-0.99 or Delay of critical milestones by less than 4 weeks	SPI $< 0.9$ or Critical activities delayed by more than 4 weeks
<b>Cost</b>	CPI $\geq 1.0$ 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

## Appendix 2 –Stakeholder Engagement Activities

### Summary

During the month of August, stakeholder outreach and communications occurred through general communications, enquiry responses, direct stakeholder outreach and a variety of stakeholder meetings and activities to support the Enabling Works projects.

All 311 service requests have been addressed and closed.

### Stakeholder Events / Communications

Event	Purpose	Date/Time	Method	Attendance
Stakeholder Meeting	Rivers District project interface coordination	2021/08/01 to 21/08/31	4 virtual meetings	Calgary Municipal Land Corporation (CMLC)
Internal Corporation Coordination Meeting (Chinatown corporate alignment meeting)	Project update and stakeholder feedback shared	2021/08/04	Virtual meeting	Multiple City of Calgary project reps
Stakeholder Meeting (Crescent Heights CA & BIA Meeting)	To provide an engagement transition plan in line with the Board's direction to not proceed with Phase 2 construction, until costs and risks in Phase 1 are known.	2021/08/12	Virtual meeting	Green Line, Liveable Streets, Transportation Infrastructure, Crescent Heights CA, Crescent Heights Village BIA
Stakeholder Meeting (Green Line invited to attend City of Calgary Standing BIA Meeting)	Focus on 17 Avenue Construction and BIA Lessons Learned (offer from Kensington BIA to share their Lessons)	2021/08/24	Virtual meeting	All BIAs, including BIA Coordinator, SRC team
Stakeholder Meeting	Calgary Stampede project interface coordination (Beltline Downtown Utilities Relocation Project) and URW requirement	2021/08/25	Virtual meeting	Calgary Stampede, CMLC
Construction Notification 11/12 St SE Enabling Works	Removal of underground cables to finish up work related to work at Jeffries Park	2021/08/25 – 2021/08/27	Email and phone notification	Ramsay/Inglewood BIP, Inglewood BIA, Inglewood CA, Ramsay CA, Cold Garden brewery, Smithbilt Hats, Art Point Studios, Ol' Beautiful Brewery, Dandy Brewing, Bike Calgary

Event	Purpose	Date/Time	Method	Attendance
Green Line Project Communication (Green Line newsletter)	First use of new CRM to notify stakeholders of updated website and to request updated contact information. This contact info will be used to geographically identify stakeholders likely to be impacted.	2021/08/30	Email	5,135 recipients 2402 unique opens 863 click throughs 196 updated bios