



REVISED AGENDA

GREEN LINE COMMITTEE

February 21, 2020, 9:30 AM
IN THE COUNCIL CHAMBER
Members

Councillor S. Keating, Chair
Councillor J. Davison, Vice-Chair
Mayor N. Nenshi
Councillor G. Carra
Councillor D. Farrell
Councillor J. Gondek
Councillor W. Sutherland

1. CALL TO ORDER
2. OPENING REMARKS
3. CONFIRMATION OF AGENDA
4. CONFIRMATION OF MINUTES
 - 4.1 Minutes of the Regular Meeting of the Green Line Committee, 2020 January 28
5. CONSENT AGENDA
 - 5.1 DEFERRALS AND PROCEDURAL REQUESTS
None
 - 5.2 BRIEFINGS
None

6. POSTPONED REPORTS
(including related/supplemental reports)

None

7. ITEMS FROM OFFICERS, ADMINISTRATION AND COMMITTEES

REVISED INFORMATION

- 7.1 *Green Line – Project Readiness Report, GC2020-0246*
**No Public Presentation on this item.

REVISED INFORMATION

- 7.2 *Green Line Q4 2019 Update, GC2020-0244*
**No Public Presentation on this item.

8. ITEMS DIRECTLY TO COMMITTEE

- 8.1 REFERRED REPORTS
None

- 8.2 NOTICE(S) OF MOTION
None

9. URGENT BUSINESS

10. CONFIDENTIAL ITEMS

- 10.1 ITEMS FROM OFFICERS, ADMINISTRATION AND COMMITTEES
None

- 10.2 URGENT BUSINESS

11. ADJOURNMENT



MINUTES

GREEN LINE COMMITTEE

**January 28, 2020, 9:30 AM
IN THE COUNCIL CHAMBER**

PRESENT: Councillor S. Keating, Chair
Mayor N. Nenshi
Councillor G. Carra
Councillor D. Farrell
Councillor J. Gondek
Councillor W. Sutherland
Councillor P. Demong
Councillor J. Farkas
Councillor E. Woolley

ALSO PRESENT: Deputy City Clerk T. Mowrey
Legislative Advisor J. Palaschuk

1. CALL TO ORDER

Councillor Keating called the Meeting to order at 9:35 a.m.

Councillor Sutherland was elected as Vice-Chair for this meeting of the Green Line Committee, by acclamation.

2. OPENING REMARKS

No opening remarks were provided.

3. CONFIRMATION OF AGENDA

Moved by Councillor Gondek

That the Agenda for the 2020 January 28 Regular Meeting of the Green Line Committee be confirmed.

MOTION CARRIED

4. CONFIRMATION OF MINUTES

4.1 Minutes of the Regular Meeting of the Green Line Committee, 2019 December 17

Moved by Councillor Sutherland

That the Minutes of the 2019 December 17 Regular Meeting of the Green Line Committee be confirmed.

MOTION CARRIED

5. CONSENT AGENDA

5.1 DEFERRALS AND PROCEDURAL REQUESTS

None

5.2 BRIEFINGS

None

6. POSTPONED REPORTS

None

7. ITEMS FROM OFFICERS, ADMINISTRATION AND COMMITTEES

Moved by Councillor Sutherland

That pursuant to Sections 21 (Disclosure harmful to intergovernmental relations), 23 (Local public body confidences), 24 (Advice from officials), 25 (Disclosure harmful to economic and other interests of a public body), and 27 (Privileged information) of the *Freedom of Information and Protection of Privacy Act*, the Green Line Committee move into Closed Meeting, at 9:38 a.m. in the Calgary Power Reception Hall, to consider the following item:

- Green Line Project - Strategic Planning Workshop (Verbal), CG2020-0149

And further, that the following external consultants be invited into the Closed Meeting:

- John Forsdick
- David Thatcher
- Agnes Zukowski
- Ian Druce
- Josh Workman

And further, that Committee, pursuant to Section 6(1) of the Procedure Bylaw 35M2017, as amended, Committee suspend Section 78(2)(b) to waive the scheduled 3:15 p.m. recess.

MOTION CARRIED

Committee moved into Public Meeting at 4:05 p.m. with Councillor Keating in the Chair.

Moved by Councillor Sutherland

That Committee rise and report.

MOTION CARRIED

7.1 Green Line Project - Strategic Planning Workshop (Verbal) - GC2020-0149

Administration in attendance with respect to Report GC2020-0149:

Clerks: L. Kennedy, T. Mowrey, and J. Palaschuk. Law: M. Bendfeld. Advice: M. Thompson, D. Morgan, G. Gerylo. Observing: D. Duckworth, G. Cole, A. Neill, S. James, M. Wong, J. Lam, P. Chan, L. Tierney, S. McMullen, M. Perpeluk, I. Druce, J. Clarke, K. Jones, J. Stein, D. LeClair, D. Calkains, D. Corbin, D. Elkin, M. Mooney, and C. Carlile. External Advice: J. Forsdick, D. Thatcher, A. Zukowski, I. Druce, J. Workman.

Confidential documents were distributed with respect to Report GC2020-0149.

Committee recessed at 12:00 p.m. and reconvened at 1:02 p.m., in Closed Meeting.

Councillor Keating left the Chair at 2:35 p.m. and Councillor Sutherland assumed the Chair.

Councillor Keating resumed the Chair at 2:39 p.m. and Councillor Sutherland returned to his regular seat at Committee.

Councillor Keating left the Chair at 3:20 p.m. and Councillor Sutherland assumed the Chair.

Councillor Keating resumed the Chair at 4:05 p.m. and Councillor Sutherland returned to his regular seat at Committee.

A document entitled 'Green Line Committee Public Presentation' was distributed with respect to Report GC2020-0149.

Moved by Mayor Nenshi

That with respect to Report GC2020-0149, the following be approved:

Administration recommends that the Green Line Committee:

1. Receive the distributions shared during the Closed Meeting for the Corporate Record;
2. Keep the Closed Meeting discussions and presentations (Morning and Afternoon Session presentations) confidential pursuant to Sections 21 (Disclosure harmful to intergovernmental relations), 24 (Advice from officials), 25 (Disclosure harmful to economic and other interests of a public body), and 27 (Privileged information) of the *Freedom of Information and Protection of Privacy Act*, to be reviewed by 2027 December 31; and
3. To enable further public engagement in regard to the Updated Stage 1 Alignment in anticipation of the March 2020 Green Line Committee meeting, release to the public the Green Line Public Presentation.

MOTION CARRIED

8. ITEMS DIRECTLY TO COMMITTEE

8.1 REFERRED REPORTS

None

8.2 NOTICE(S) OF MOTION

None

9. URGENT BUSINESS

None

10. CONFIDENTIAL ITEMS

10.1 ITEMS FROM OFFICERS, ADMINISTRATION AND COMMITTEES

None

10.2 URGENT BUSINESS

None

11. ADJOURNMENT

Moved by Councillor Sutherland

That this meeting adjourn at 4:30 p.m.

MOTION CARRIED

The next Regular Meeting of the Green Line Committee is scheduled to be held at the Call of the Chair.

CONFIRMED BY COMMITTEE ON

CHAIR

ACTING CITY CLERK

Transportation Report to
Green Line Committee
2020 February 21

ISC: UNRESTRICTED
GC2020-0246

Green Line – Project Readiness Report

EXECUTIVE SUMMARY

This report includes information about the project readiness plan developed jointly by the Green Line project team, the Green Line Technical and Risk Committee (TRC) and external experts supporting the project in response to the conclusions and recommendations of the TRC in their project deliverability review requested by the General Manager of the Green Line Project and by Council on 2019 July 29. The readiness plan is intended to move the Green Line project from its current state of maturity, as reflected in the TRC members' findings, to the state of maturity required for successful delivery of a complex megaproject.

The TRC is comprised of independent, external, professional project advisors possessing expertise in the areas of governance, procurement, commercial matters, stakeholder consultation, design, and tunnel constructability. The TRC analysis confirms that there are critical gaps across various elements and a significant amount of work needs to be done to eliminate the gaps and complete the activities outlined in the readiness plan to ensure project success. However, it is the opinion of both the TRC and the General Manager of the Green Line Project that should the actions outlined in the readiness plan be properly executed in a timely manner and by a team having all the required competencies, this will place The City on a successful path to plan, procure and deliver the Green Line project.

Execution of the activities in the readiness plan is already underway.

ADMINISTRATION RECOMMENDATION:

That the Green Line Committee:

Recommend that Council receive this report for the Corporate Record.

PREVIOUS COUNCIL DIRECTION / POLICY

See attachment.

BACKGROUND

Since 2019 July 29, the members of the TRC have:

- completed the review of the RFQ for Contract #1 requested by Council through its adoption of Recommendation 5 on 2019 July 29;
- provided a verbal report to the Green Line Committee on project governance;
- undertaken extensive reviews and detailed analysis towards fulfilling various other aspects of the mandate included in their terms of reference and as directed by Council;
- completed their project deliverability review;
- assisted Administration in the preparation of the readiness plan; and
- provided advice that has assisted with preventative risk management.

This report outlines the 2020 January 15 conclusions of the TRC's project deliverability review requested by Council through its adoption of Recommendation 4 on 2019 July 29 and includes information about a readiness plan developed jointly by the Green Line project team, the TRC, and external experts supporting the project. The readiness plan has been reviewed by the TRC

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to confirm that it addresses the TRC conclusions. The actions outlined in the readiness plan are intended to position The City for success in the ongoing planning, procurement and delivery of the Green Line project.

INVESTIGATION: ALTERNATIVES AND ANALYSIS

The TRC's findings have been shared with and accepted by General Manager Thompson, Managing Director Neill and the Green Line project management team. The initiatives identified in the readiness plan are being actioned under General Manager Thompson and Managing Director Neill's leadership.

The Green Line project's Executive Steering Committee (ESC), chaired by the City Manager and comprised of the General Manager and Managing Director of the Green Line Project, the Chief Financial Officer, the City Solicitor and General Counsel, the General Manager of Transportation, the Director of Calgary Transit, and the Director of Supply, has been briefed by Chair Fairbairn and General Manager Thompson on the conclusions of the TRC deliverability review and the actions and initiatives included in the readiness plan to address these conclusions. The ESC is committed to providing the Green Line project with the resources, advice, assistance, and oversight required to ensure project success.

TRC Review Process:

The TRC commenced its deliverability review on 2019 September 26 and concluded its review on 2020 January 15. The TRC's goals were to:

- assess Green Line program management, functional, technical, procurement, and risk elements to determine the deliverability readiness of the program;
- identify critical gaps that impact deliverability; and
- engage the program team to develop a readiness plan.

Steps undertaken to complete the review included:

- a review of key project management documentation;
- interviews and discussions with key project team members;
- development of preliminary TRC findings;
- a series of meetings with the General Manager and Managing Director of the Green Line Project and members of the project's senior leadership team to validate the preliminary findings; and
- presentation of final findings to the Green Line team and to ESC.

TRC Findings:

The TRC defined "successful delivery" as "a program that meets or surpasses the program objectives including safety, budget, schedule, and quality" and concluded that immediate action is required to ensure project success and avoid project failure. The TRC also concluded that execution of the readiness plan "would place the program on a strong trajectory towards success".

It is important to note that the TRC assessed the Green Line project's readiness relative to their view of best practice standards for mega projects. This is a higher standard than The City has historically used to assess lower cost capital projects. Administration will ensure that lessons

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learned from the TRC review are shared with The City's Corporate Project Management Office for consideration when planning and executing future City capital projects.

The TRC reviewed the following elements of the Green Line program relative to those required for a successful mega project:

- program status;
- governance framework;
- business case;
- program structure;
- scope;
- property acquisitions;
- utilities;
- enabling works;
- program controls;
- technical;
- constructability;
- procurement;
- quality plan;
- reporting;
- readiness;
- risk management; and
- stakeholder plan;

and assigned to each area one of the following “Key Deliverability Scores” to indicate their view of the extent to which each key area was developed:

- aspects fully developed and functioning;
- some aspects partly developed and some still developing; or
- required aspects not developed or not fit for purpose.

The TRC's conclusions and comments as at 2020 January 15 are outlined below. It is important to note that a great deal of additional work has been undertaken by the Green Line project team to advance progress on many of the items that are indicated. This is evidenced by the creation of a readiness plan and the other activities noted in this report.

Key Deliverability Score: Aspects fully developed and functioning:

- Property acquisition for Segment 1: 80% complete; and
- Utilities: Relocations for Segment 1 are 80 to 90% complete.

Key Deliverability Score: Some aspects partly developed and some still developing:

- Program structure: The program has selected a matrix organizational structure that is incomplete and not understood by the team;
- Enabling works: The program needs to strengthen the management of these contracts. The program needs a stronger site presence and a renewed sense of urgency around the management of these contracts;
- Constructability: A constructability review has been conducted on Segment 1 only; and

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- Risk management: The risk management plan needs to be refined and properly implemented to be used to inform decision making.

Key Deliverability Score: Required aspects not fully developed or not fit for purpose:

- Program status: Not all of the processes, procedures and staffing are currently in place to provide successful delivery of the program;
- Governance framework: The governance framework is ineffective for the delivery of a mega-program;
- Business case: The business case is outdated and incomplete;
- Scope: Segment 1 scope is mostly fixed. Segment 2 scope is under development;
- Property acquisitions: Segment 2 awaits a final scope;
- Utilities: Segment 2 awaits a final scope;
- Program controls: The program controls for a \$4.903 billion program have not been established;
- Technical: There is currently no Council-approved technical solution that meets the approved funding. Project Agreement documents for Segment 1 require extensive development and coordination;
- Procurement: The program is not tracking the progress of the preparation of procurement documentation. Procurement is tracking six to seven months behind schedule;
- Quality Plan: The program has no quality plan;
- Readiness: The program is not using a gated approved management system or readiness reviews and is proceeding in an unregulated manner; and
- Stakeholder Plan: The program has work plans but does not have an overall stakeholder management plan.

Due diligence and risk management: The role of the readiness plan:

The readiness plan was developed to:

- address gaps in program delivery identified by the TRC and required for successful execution over the ongoing alignment planning, procurement and construction stages of the program; and
- support the successful completion of set-up, planning, procurement, and delivery activities required to be ready to go to market, with minimal impacts to the overall schedule.

The following principles guided the development of the plan:

- Structure: Defining how the program and the definition of key deliverables (including scope, procurement documents and cost/schedule definition) will mature over time;
- Focus: Establishing a sequence and division of work to efficiently allocate resources, prioritize activities, reduce unnecessary change, and eliminate re-work;
- Accountability: Establish transparency and ownership of activities across the Green Line team;

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- Confidence: Re-establish confidence in the program and the realization of the vision from within the team as well as from within The City organization, Council and other key stakeholders; and
- Discipline: Create discipline across the program, reflected in the actions of every team member, to adhere to the plan and proactively support structure, focus, accountability, and confidence within themselves and their peers.

Many of the TRC's recommendations and the initiatives in the readiness plan are already being implemented. General Manager Thompson recently led three workshops between TRC members, project team members and other expert external advisors to share the TRC members' findings and secure input into the readiness plan that will now guide the work of the Green Line team as they complete the planning phase of the project and move into the procurement and construction phases.

2020 Objectives:

To ensure focus, Green Line project team members have agreed to achieve the following three goals for 2020:

- Governance and staffing:
 - Governance model is finalized, approved by Council and fully operational;
 - Senior leadership positions and required staff requirements are filled by people with the right level of expertise and who excel in the project environment;
 - Clear roles, responsibilities and authorities are defined, documented and embedded into the culture of the team; and
 - Program set-up and systems are in place and all actions identified through TRC reviews have been completed;
- Planning:
 - Segment 2 planning is complete and the class 3 cost and schedule for the complete Stage 1 is within the approved \$4.9 billion funding; and
 - An updated Business case is approved by Council;
- Delivery:
 - RFP for Segment 1 and the LRV's have commenced;
 - Segment 1 enabling works are substantially complete; and
 - Segment 2 construction management utilities contract is issued and underway.

Work Streams:

To execute on the readiness plan, four work streams with the following objectives have been identified and staff or external experts assigned to lead each:

- Governance and Program Set-Up:
 - Establish a governance framework that allows for effective and efficient delivery; and
 - Establish processes, procedures and onboard personnel with the necessary capabilities and experience required to support effective and efficient delivery of the program;

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- Planning:
 - Establish a viable scope, technical solution and funding arrangement and develop the supporting business case documentation which demonstrates the need/basis for the successful delivery of the Green Line;
- Commercial:
 - Establish the procurement strategy, develop procurement documentation (Request for Quotation, Request for Proposal, Technical Performance Requirements, and Project Agreement) and manage smaller procurements and contract administration processes necessary for successful delivery of the program; and
- Technical and Delivery:
 - Deliver the enabling works program and develop the technical deliverables (including the design, estimating, schedule, and risk deliverables) necessary for successful delivery of the program.

Future quarterly reports updating the Green Line Committee on the status of the project will outline progress of each work stream.

Stage Gates:

A best practice for all major capital projects is the creation of stage gates. Transportation Infrastructure's stage gate standard forms the basis for the Green Line stage gates.

"Stages" are the period of time between gates in which information is collected, activities are completed and deliverables are produced. Stages are designed to progressively reduce uncertainty, provide definition and validate project value.

"Gates" are formal checkpoints at which careful consideration is given as to whether a project should proceed. "Gate reviews" are used to determine this. These are formal reviews of a project or program's current state to determine whether it should proceed and if so, under what conditions.

A project does not proceed unless all requirements to move beyond each gate are fulfilled or ESC has approved proceeding without a required element.

Project Controls:

Fit for purpose systems, processes and reporting tools, such as issues and decision logs, are being established to provide consistent and pertinent information to ESC, General Manager Thompson, Managing Director Neill, the City Manager, and the Green Line team. Ensuring proper project controls are in place is critical to mega project success.

Additional External Expertise with Mega-Project Experience:

To provide further due diligence on costing and to enhance risk management around the project, additional external project advisors with mega-project experience have been secured:

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- Steer Group: Steer is an international public transit planning and project economics company. They were retained for their transportation planning expertise and for their expertise in writing project business cases;
- Hanscomb Quantity Surveyors: This international company has a 60-year history of providing tools needed to control costs and help ensure project success. Their role is to conduct an independent review of The City's cost estimates for the program;
- SMA Consulting Ltd.: SMA provides risk management advisory services to the project team. They were retained to assist the project team, the ESC and The City's Integrated risk management team with identifying, documenting, managing, mitigating, monitoring, transferring or avoiding risk. SMA's scope of work includes:
 - project controls program setup and implementation support; and
 - risk management, including quantified cost and schedule risk assessments.

Continuing Governance Review:

On 2019 December 17, Chair Fairbairn advised the Green Line Committee that enhancements to project governance are required. Discussions with the City Manager and ESC continue to assess the best governance model for this project. A recommendation regarding the optimal governance structure for the project will be brought to the Green Line Committee for consideration on 2020 April 17.

Stakeholder Engagement, Research and Communication

The TRC consulted with the General Manager and Managing Director of the Green Line project and various internal and external project team members in the preparation of their deliverability review and in the development of the readiness plan. Some members of the TRC facilitated or participated in the three project team workshops held since the deliverability review was finalized. The ESC was briefed on the result of the deliverability review and the purpose and content of the readiness plan.

Strategic Alignment

The TRC's work is consistent with General Manager Thompson's request for assistance from independent external experts and with the Council-approved terms of reference for the TRC.

Social, Environmental, Economic (External)

Financial Capacity

Current and Future Operating Budget:

This report has no impact on the operating budget for the project.

Current and Future Capital Budget:

This report has no impact on the capital budget for the project.

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Risk Assessment

The TRC was established by Administration to assist in identifying, mitigating, monitoring, transferring, or avoiding risk associated with planning, procuring and delivering the project.

The TRC's deliverability report highlighted significant risks associated with various aspects of the project. The members of the TRC, other external experts supporting the work of the project team and the members of the project team have collaborated to develop the readiness plan to address the findings of the TRC deliverability review. The project team has commenced executing the activities outlined in the plan and are securing the additional internal and external resources required to reduce risk and ensure project success. The TRC members will monitor the progress of implementing the activities and initiatives outlined in the readiness plan.

The TRC's work is continuing in accordance with General Manager Thompson's requests for assistance and Council direction. The TRC will continue to report to Council on a quarterly basis and will report its findings on various Council-directed reviews as soon as those reviews are completed.

The TRC's findings will be of continuing value to the corporation as lessons learned from this review are shared with the Corporate Project Management Office and used to inform planning, design, procurement, and delivery processes on other City capital projects.

REASON(S) FOR RECOMMENDATION(S):

In the Spring of 2019 Administration recognized the need to secure the services of independent, external, professional project advisors possessing governance, procurement, commercial negotiation, stakeholder consultation, design, and tunnel constructability expertise to assist the Green Line project team.

Council and Administration have greatly benefited from the advice of the expert advisors serving as TRC members. The TRC's deliverability review is now complete and this report outlines the TRC members' findings and the readiness plan (developed by the Green Line project team, the TRC and external experts supporting the project) designed to address gaps in the project team's readiness to successfully plan, procure and deliver the project.

It is the opinion of the TRC and the General Manager of the Green Line Project that The City will be on a successful path to plan, procure and deliver the Green Line project if the actions outlined in the readiness plan are properly executed in a timely manner and by a team having all the required competencies. Execution of the activities in the readiness plan is already underway.

ATTACHMENT(S)

1. Attachment 1 – Previous Council Direction

PREVIOUS COUNCIL DIRECTION

At its 2019 July 29 Combined Meeting, Council considered report TT2019-0811 titled “Green Line Q2 2019 Update”. The “Risk Assessment” section of that report indicated that Administration was establishing a Technical and Risk Committee (TRC) comprised of external industry project specialists in the areas of procurement, commercial strategies, stakeholder management, design, and construction to help mitigate risk associated with mega projects. Council adopted the following motions in regard to the TRC:

- Recommendation 4: “Direct Administration to have the Green Line Technical Risk Committee carry out an independent peer review of the following:
 - Overall project budget and scope;
 - Sufficiency of funding for the Project;
 - Suitability of the proposed technical solution with respect to Contract 2;
 - Deliverability of the Project;
 - Risk identification, quantification and mitigation process; and
 - Suitability and adequacy of the governance and resourcing of the Project”;
- Recommendation 5: “Direct Administration not to release the Request for Qualifications (RFQ) to the market for Contract 1 (4th Street SE to Shepard SE) until the RFQ has been reviewed by the Green Line Technical and Risk Committee”; and
- Recommendation 6: “Direct Administration to have the Green Line Technical and Risk Committee report to the SPC on Transportation & Transit Committee as part of the Green Line quarterly updates with respect to their independent peer review over the previous quarter”.

On 2019 September 18, in the “Risk Assessment” section of report TT2019-1073 titled “Green Line Q3 2019 Update”, Administration advised the SPC on Transportation & Transit that the members of the TRC had been selected and on that date, the TRC provided its first report (TT2019-1076 titled “Green Line Technical Risk Committee – Q3 2019 Update”) to the Committee. Council considered both reports on 2019 September 30 and adopted the recommendation of the SPC on Transportation and Transit in report TT2019-1076 directing Administration to have the TRC return with a quarterly update no later than Q4 2019. Report TT2019-1076 included biographies for each of the TRC members (Chair Don Fairbairn and members Albert Sweetnam, Eric Tromposch, and Erich Neugebauer) and, as Attachment 2, the TRC’s terms of reference. The terms of reference indicate that the TRC’s work is divided into two modules, module 1 focusing on the independent review of specific work elements as defined in report TT2019-0811 and module 2 focusing on preventative risk management.

On 2019 December 17, in accordance with Recommendations 4 and 6 adopted by Council on 2019 July 29, Chair Fairbairn provided a verbal report to the members of the Green Line Committee outlining the TRC’s analysis of enhancements required to Green Line project governance (GC2019-1594 titled “Technical and Risk Committee (TRC) Governance Review (Verbal)”). The Committee received his presentation for the Corporate Record.

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ISC: UNRESTRICTED
GC2020-0244

Green Line Q4 2019 Update

EXECUTIVE SUMMARY

This report provides an update on the status of the Green Line LRT Project to the Green Line Committee as a Q4 2019 update and annual report. It includes key achievements in Q4 2019 such as retaining additional project management and third-party review expertise, closure of the Request for Qualifications (RFQ) for Segment 1 and establishment of the Green Line Committee. This report additionally includes 2020 key deliverables set by the project within three categories: staffing, planning and delivery. Updates to the project funding schedule following the Alberta's Budget 2019 are also reviewed within this report.

The project remains in a state of change with the final alignment not yet approved by committee and Council. The team is currently engaged in three phases of the project: planning, procurement, and delivery. For the project to move forward successfully, the planning phase must be concluded and effort focused on procurement and delivery. While a number of positive steps have been completed in Q1 2020, in Q4 2019, the project was at significant risk. For the project to be a success, in Q1 2020, the planning phase must be completed and attention moved to procurement and delivery.

ADMINISTRATION RECOMMENDATION:

That the Green Line Committee:

Recommend Council to direct Administration to return with a Q1 2020 Quarterly Report in April 2020.

PREVIOUS COUNCIL DIRECTION / POLICY

At the 2019 July 29 Combined Meeting of Council, Report TT2019-0811 (Green Line Q2 Update) was received for information, 11 recommendations were voted on separately. A summary and update on these recommendations are shown in Attachment 1.

At the 2019 September 18 SPC on Transportation and Transit meeting, Report TT2019-1073 (Green Line Q3 Update) was received for information.

BACKGROUND

Green Line Vision: *A city-shaping transit service that improves mobility in north and southeast Calgary, connecting people and places, and enhancing the quality of life in the city.* The updated vision was approved at the 2020 January 13 Combined Meeting of Council.

Stage 1 of Green Line extends from 16 Avenue N to 126 Avenue SE, selected because of its ease of expandability, transit network connections, benefits including ridership and overall project readiness. Stage 1 will build the core of the Green Line while preparing for future expansion – potentially both north and south. Like the Red and Blue Lines, the Green Line will be built in stages as funding becomes available. Once fully built, the Green Line will be a 46-km light rail transit (LRT) line that connects 27 communities and serves over 220,000 trips daily.

A progress report card, risk assessment, summary of project funding and a project focus area updates are included in this report and associated attachments.

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GC2020-0244

Green Line Q4 2019 Update

INVESTIGATION: ALTERNATIVES AND ANALYSIS

The Green Line has defined focus areas of leadership, governance, commercial, stakeholder and technical (See Table 1). Quarterly, within each focus area, the project tracks performance on key deliverables and provides a status rating for each focus area (See Attachment 2). The ratings for the focus areas are either “controlled”, “needs attention” and “requires immediate attention”. In Q4 2019, the project was undergoing a considerable amount of change, as a result, all focus areas were rated as “requiring immediate attention”. It should be noted that this report identifies the severity of issues as they existed at the end of Q4 2019 and that looking forward through Q1 2020, significant advancements have been made in all focus areas.

Table 1. Green Line Project Focus Areas and Key Elements

Leadership	Governance	Commercial	Stakeholder	Technical
<ul style="list-style-type: none"> • Vision, mission and values • Organizational culture • Capability, capacity and competence • Change management • Communications • Soft Controls 	<ul style="list-style-type: none"> • Oversight • Decision / authority / escalation protocols • Organizational design • Reporting line of sight • Performance management • Stakeholders 	<ul style="list-style-type: none"> • Project structure • Business case • Contract strategy • Procurement • Risk management • Finance and funding 	<ul style="list-style-type: none"> • Government and regulatory • Indigenous relations • Community/public engagement • Internal stakeholders • Relationship management • Industrial relations 	<ul style="list-style-type: none"> • Engineering management • Budget and schedule • Project controls • Technology / systems / process • Regulatory requirements/permitting • Asset Management

The remainder of this section lists notable deliverables achieved in 2019, upcoming deliverables in 2020, are identified below:

2019 Achievements

Notable Q4 2019 deliverables achieved:

- Developed readiness plan to be presented at the 2020 February 21 Green Line Committee Meeting;
- Closed the Segment 1 RFQ, released in August 2019 and closed in October 2019;
- Worked with the Government’s of Alberta and Canada following the change in the Government of Alberta’s Budget 2019 to minimize the impact of additional borrowing costs on the City of Calgary; and
- Established the Green Line Committee which held its inaugural meeting on 2019 November 2019

Notable 2019 deliverables achieved in addition to the above:

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GC2020-0244

Green Line Q4 2019 Update

- Adoption of the Envision Sustainability Management system: a framework that provides decision support in the planning, design and delivery of sustainable and resilient infrastructure projects, and measuring project contributions to sustainability across social, economic, and environmental indicators (Q1);
- Finalized and signed the funding agreement with the Provincial Government (Q1);
- Received executive agreements for the right-of-way required for the LRT between The City of Calgary Green Line and Canadian Pacific (CP) Railway (Q2);
- Recruited and on-boarded the Green Line Managing Director (Q3);
- Established the Technical Risk Committee (TRC) (Q3);
- Developed readiness plan to be presented at the 2020 February 21 Green Line Committee Meeting (Q4).

Q4 2019 Updates by Focus Area and 2020 Deliverables

For this report an update on all focus areas are included.

Leadership Update

In Q4 2019, a key success included the on-boarding of a number of firms and personnel to provide additional expertise to the project. Among the firms:

- SMA Consulting (SMA), who provide Risk Management and Project Control expertise;
- Hanscomb Limited, who provide independent cost estimate review;
- Steer Group, who provide due diligence review of the transportation and transit planning for Stage 1; and
- Individual and team coaching, through the People and Culture division of HR.

In 2020, the project will focus on the following three key goals, with associated deliverables:

1. Governance and Staffing

- Governance model is finalized, approved by council and fully operational;
- Senior Leadership positions and required staffing requirements are filled by people with the right level of expertise and who excel in the project environment;
- Clear roles, responsibilities and authorities are defined, documented and embedded into the culture of the team; and
- Program set-up and systems are in place and all actions identified through TRC reviews have been completed;

2. Planning

- Segment 2 planning is complete and the class 3 cost and schedule for the complete Stage 1 is within the approved \$4.9 billion funding; and
- An updated Business case is approved by Council;

3. Delivery

- RFP for Segment 1 and the LRV's has commenced;
- Segment 1 enabling works are substantially complete; and
- Segment 2 construction management utilities contract is issued and underway.

Governance Update

Key governance achievements in the last quarter include the TRC's commencement of work on the deliverability review, including a presentation to the Green Line Committee in December 2019. The scope of the TRC deliverability included an assessment of the current status of

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governance and potential improvements. Looking forward to 2020, work on a recommended governance model will continue. This includes the review of potential options, including an improved internal structure, a hybrid model with delegation of authority to a Committee or Board of Council or a wholly owned subsidiary. Following the assessment, the approval of Council will be sought to implement the recommended governance model. Delegation of authority, decision making and escalation will be updated to ensure that it is consistent with the finalized organizational structure.

Commercial Update

Major Q4 2019 achievements within the commercial focus areas were:

- The closure of the Segment 1 RFQ;
- Issuing of the Green Line Risk Management Plan;
- Continued work with project funding partners, the Government of Alberta and Government of Canada following the change in the Government of Alberta's Budget 2019 to minimize the impact of additional borrowing costs on the City of Calgary.

In 2020 commercial goals include:

- Release of Light Rail Vehicle (LRV) Request for Proposal (RFP);
- Release of Segment 2 Utility Construction Management Request for Proposal (RFP);
- Release of Segment 1 Request for Proposal (RFP); and
- Release of Owner's Engineering Request for Proposal (RFP) for Contract Administration.

Stakeholder Engagement, Research and Communication

During Q4 2019, through the Enabling Works Program, the team has continued to inform citizens and respond to their concerns in Segment 1. Segment 1 enabling works stakeholder relations will continue into 2020. In Segment 2, Q4 2019 activities focused on meetings with key stakeholders, Business Improvement Areas (BIAs) and communities, to better understand stakeholder interests associated with changes to the Segment 2 alignment. Moving into 2020, meetings will continue with the goal of better understanding Segment 2 stakeholder interests in the process of finalizing the updated Stage 1 alignment. The input received will be summarized and shared as a "What We Heard" report with Committee at the 2020 March 31 meeting.

Technical Update

In July 2019, Council directed Administration to review the Stage 1 alignment. At the 2019 December Committee meeting Administration reported on the status of the review to date and the next steps in finalizing the updated Stage 1 alignment. In Q4 2019 the team focused on value engineering across Stage 1, reviewing and updating the alignment to ensure that the project will maximize the return on investment. The Stage 1 value engineering will be finalized in Q1 2020 and incorporated into the procurement documents.

Strategic Alignment

Calgarians consistently tell Administration that frequent, convenient, reliable, and affordable transit is important to them and the provision of this type of transit service is integral to The City's Municipal Development Plan and Calgary Transportation Plan. Construction of the Green

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Line is our next step towards completing Calgary's transit network, as described in the Council-approved Route Ahead: A Strategic Plan for Transit in Calgary.

Social, Environmental, Economic (External)

Calgarians who do not live close to the Green Line will also benefit from the new service. The Green Line will help return capacity to the Red Line by providing additional service in the southern quadrants of Calgary. Additional capacity on the Red Line will help improve the ridership experience, further alleviate vehicular demand on the area road network and create capacity for growth. Data shows that many Calgarians in communities along the Blue Line and Red Line already use transit. The Green Line will help connect Calgarians from across the city to employment hubs and destinations.

The Green Line will deliver long-term outcomes for Calgarians by improving mobility with fast, frequent, and reliable transit service; reducing congestion and travel times; enhancing connectivity between people and place; creating a safe, accessible, comfortable and convenient transportation experience; contributing positively to the urban realm, community development and revitalization; contributing to the vitality of businesses in the community; and protecting the environment.

Green Line has been putting Calgarians to work with over 100 Enabling Works projects completed to prepare for Stage 1 construction. Construction of Stage 1 is expected to create 20,000 direct and indirect jobs. On opening day, Stage 1 of Green Line will provide Calgarians direct access to 190,000 jobs, and 225,000 jobs anticipated by 2048. Once built from 160 Avenue N to Seton, the Green Line is expected to serve over 220,000 trips daily. This is expected to save 30,000 tonnes of greenhouse gas (GHG) emissions, equivalent to 6,100 vehicles.

Financial Capacity

Total funding for Project's Stage 1 is \$5.5 billion, with contributions from the Government of Canada (\$1.64 billion), Government of Alberta (\$1.70 billion) and the City of Calgary (\$2.20 billion). Municipal funding is comprised of two funding streams, \$52 million annually for 30-years (2015 to 2044) and \$23.7 million annually for 27-years (2018-2044). The municipal funding of \$1.64 billion is allocated to categories of capital funding (\$1.56 billion) and financing funding (\$0.64 billion) and these funding streams can be optimized over the term of the project. Incremental operating costs of approximately \$40 million per year (in 2016 dollars) have been estimated for the project. Operating budget requirements will be reviewed during the current One Calgary cycle with refinements and updates to be approved in a future budget cycle¹ to align with the anticipated revenue service date for the Project.

In October 2019, the Provincial government released its 2019 budget. In Alberta's Budget 2019 and subsequent public commentary, the Government of Alberta reiterated its funding commitment of \$1.53 billion for Stage 1 of the Green Line. The City is currently in conversation

¹ Provided to Council on 2017 May 15 and 2017 November 27 (C2017-1123).

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with the Government of Canada to confirm its schedule of payments. Attachment 4 includes supporting tables regarding funding sources, funding schedules and City of Calgary approvals.

Current and Future Operating Budget:

This report has no impact on the current and future operating budget for the Project.

Current and Future Capital Budget:

This report has no impact on the current and future capital budget for the Project.

Risk Assessment

All mega projects experience risk. To assist in managing and mitigating risk, Administration has brought on additional resources to support the risk management.

Green Line operationalized the TRC in Q3 2019 and retained SMA, a firm specializing in Risk Management in Q4 2019. The TRC, comprised of external industry project specialists in the areas of procurement, commercial strategies, stakeholder management, design, and construction, have delivered reports to the Green Line Committee and the Executive Steering Committee, and have actively been engaged with the project team. The TRC will continue to work with the project team and report quarterly to the Green Line Committee. SMA's involvement will bolster The City's risk management expertise and capabilities.

In December 2019, the Green Line Risk Management Plan was issued, outlining the basis of risk management standards and procedures, and providing a starting point for the project to establish a "risk-culture". In Q1 2020, the project risk register will undergo an in-depth reorganization to align its structure and functionality with best practices on mega projects. This includes an update to the reported categories to enhance communication on project risks. In the interim, administration has identified the top risk categories on the project, and is allocating resources and expertise to monitor, manage, and mitigate these as appropriate.

Attachment 3 includes a summary of the Project Risk Assessment.

Upcoming Key Deliverables

Information to be provided at the 2020 March 31 Green Line Committee meeting will include:

- A "what we heard" report outlining updated Stage 1 alignment feedback from Calgarians;
- A final recommendation on the updated Stage 1 alignment; and
- An updated business case.

REASON(S) FOR RECOMMENDATION(S):

ATTACHMENT(S)

1. Attachment 1 – 2019 July 29 Council Direction
2. Attachment 2 – 2019 Q4 Green Line LRT Progress Report Card
3. Attachment 3 – Risk Registry Q4 2019
4. Attachment 4 – Additional Information on Project Funding

2019 July 29 Council Direction

At the 2019 July 29 Combined Meeting of Council, 11 recommendations were approved. Updates on the directions are summarized in the following three tables:

- Table 1 – Directions Successfully Addressed
- Table 2 – Directions Scheduled for Q1 2020 Completion
- Table 3 – Directions Currently Being Addressed

Table 1. Directions Successfully Addressed

<p>Direction 1</p> <p>Direct Administration to split the procurement of the Green Line Stage 1 project into multiple contracts from 16 Avenue North to 126 Avenue Southeast.</p> <p><u>Completion Date:</u></p> <p>August 2019</p> <p><u>Additional information:</u></p> <ol style="list-style-type: none"> 1. The procurement documentation was split into two contracts in August 2019: Contract 1, Segment 1, 4 Street SE to 126 Avenue Station including the Shepard Maintenance and Storage Facility; and Contract 2, Segment 2, 16 Avenue N to 4 Street SE Station. 2. Segment 1 Request for Qualifications (RFQ) was released on 2019 August 13 and closed on 2019 October 24.
<p>Direction 5</p> <p>Direct Administration not to release the Request for Qualifications (RFQ) to the market for Contract 1 (4 Street SE to Shepard SE) until the RFQ has been reviewed by the Green Line Technical and Risk Committee.</p> <p><u>Completion Date:</u></p> <p>August 2019</p> <p><u>Additional information:</u></p> <p>The RFQ for Contract 1 was reviewed by the TRC in advance of its 2019 August 13 release.</p>
<p>Direction 6</p> <p>Direct Administration to have the Green Line Technical and Risk Committee report to the SPC on Transportation & Transit Committee as part of the Green Line quarterly updates with respect to their independent reviews over the previous quarter.</p> <p><u>Completion Date:</u></p> <p>September 2019</p> <p><u>Additional information:</u></p> <ol style="list-style-type: none"> 1. The TRC began reporting as part of the Green Line Quarterly Update at the September 2019 SPC on Transportation & Transit Committee.

2. TRC reporting alongside Green Line Quarterly Updates to the Green Line Committee will continue until the Green Line Committee Directs otherwise.

Table 2. Directions Scheduled for Q1 2020 Completion

Direction 2

Direct Administration not to proceed with construction of the Green Line Light Rail Transit Project – Contract 1 (4 Street SE to Shepard SE) until the alignment review from 16 Avenue N to 4 Street SE has been completed and any potential changes have been approved by Council.

Scheduled completion date:

2020 March 31

Additional information:

The Green Line will only move ahead with Contract 1 (4 Street SE to 126 Avenue SE) following Council approval. Administration will bring forward the updated Stage 1 recommendation to the Green Line Committee on 2020 March 31.

Direction 3

Direct Administration to conduct a feasibility review of potentially including the North Pointe to 16 Avenue corridor along Centre Street in Stage 1 if the 16 Avenue to 4 Street corridor is not resolved by January 2020 to be included only once confirmed with our funding partners.

Scheduled completion date:

2020 March 31

Additional information:

Administration to report through the Green Line Committee on 2020 March 31 with an update on the review completed to date.

Direction 9

Direct Administration to develop a scoping study to examine opportunities for improvements to interim rapid transit services from North Pointe south along the Centre Street corridor and report back to the SPC on Transportation and Transit by Q1 2020. The scoping study will identify the next steps required to deliver functional planning, preliminary and detailed designs.

Scheduled completion date:

2020 March 31

Additional information:

Administration to report through the Green Line Committee on 2020 March 31 with recommendations for investment on interim rapid transit services from North Pointe south along the Centre Street corridor.

Direction 11

Direct Administration to undertake a review of risks associated with any potential alignment decisions that affect downtown real estate development values, and City Assessment values.

Scheduled completion date:

2020 March 31

Additional information:

Administration to report through the Green Line Committee on 2020 March 31 with a Property Economics Impact Assessment.

Table 3. Directions Currently Being Addressed

Direction 4

Direct Administration to have the Green Line Technical Risk Committee carry out an independent peer review of the following:

- Overall project budget and scope;
- Sufficiency of funding for the Project;
- Suitability of the proposed technical solution with respect to Contract 2;
- Deliverability of the Project;
- Risk identification, quantification and mitigation process; and
- Suitability and adequacy of the governance and resourcing of the Project;

Additional information:

The Technical Risk Committee to report through the Green Line Committee on 2020 February 21 regarding their findings to date.

Direction 7

Direct Administration to work with our funding partners to obtain agreement that any capital cost savings from the Green Line Stage 1 (16 Avenue N to 126 Avenue SE) project will be applied to the required land assembly, corridor preparation, and design and construction of extensions north and south (outside the Stage 1 project), with sequencing of the extensions to be determined utilizing the Route Ahead Project Prioritization Framework.

Additional information:

1. The direction has been raised with the Governments of Canada and Alberta.
2. A letter was sent to Government of Alberta to initiate this discussion and has been raised in Administration's discussions with the Government of Canada.

Direction 8:

Direct Administration to initiate land assembly on an opportunity basis north of 16 Avenue N, for Green Line future stages utilizing the Transportation Future Land Fund or the Revolving Fund for General Land Purchases, as a funding source.

Additional information:

1. Prior to Direction 8 being given, the Green Line had identified land acquisitions that would support Green Line future stages. Direction 8 approved funding to allow Green Line to begin acquisitions for future stages on an opportunity basis.

2. Green Line is developing a work program to further support strategic acquisition of land for Green Line future stages.

Direction 10

Continue advocacy efforts with our funding partners to secure funding to complete the full Green Line LRT.

Additional information:

1. Administration has continued to advocate to our funding partners to secure funding to complete the full Green Line LRT.
2. The Green Line Project was included in advocacy through the YYC Matters campaign during the recent federal election.
3. The Green Line Project has been included in pre-budget submissions to both the federal and provincial government.



Green Line LRT Quarterly Progress Report Card

Colour Ratings:

Controlled

Needs attention

Requires immediate attention

	Q1 2019 (Jan–March)	Q2 2019 (April–June)	Q3 2019 (July–Sept)	Q4 2019 (Oct–Dec)
Five Focus Areas	Key Deliverables	Key Deliverables	Key Deliverables	Key Deliverables
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Key Deliverables in response to the TT2019-0811 Alternate Recommendations

¹ Recommendation #5 Direct Administration not to release the Request for Qualifications (RFQ) to the market for Contract #1 (4 Street SE to Shepard SE) until the RFQ has been reviewed by the Green Line Technical and Risk Committee;

² Recommendation #6 Direct Administration to have the Green Line Technical and Risk Committee report to the SPC on Transportation & Transit Committee as part of the Green Line quarterly updates with respect to their independent reviews over the previous quarter

³ Recommendation #4 Direct Administration to have the Green Line Technical Risk Committee carry out an independent peer review of the following:

- I. Overall project budget and scope;
- II. Sufficiency of funding for the Project;
- III. Suitability of the proposed technical solution with respect to Contract 2;
- IV. Deliverability of the Project;

V. Risk identification, quantification and mitigation process; and Suitability and adequacy of the governance and resourcing of the Project

⁴ Recommendation #1 Direct Administration to split the procurement of the Green Line Stage 1 project into multiple contracts from 16 Avenue North to 126 Avenue Southeast

⁵ Recommendation #3 Direct Administration to conduct a feasibility review of potentially including the North Pointe to 16th Ave corridor along Centre Street in Stage 1 if the 16th Ave to 4th Street corridor is not resolved by January 2020 to be included only once confirmed with our funding partners;

Low	Willing to accept and monitor these risks since they have low likelihood of occurrence with minor consequences.			
Medium	Recognizes these risks will probably occur and will have moderate consequences. Management will monitor and manage risks by implementing contingency plans to reduce the likelihood and impact of their occurrence.			
High	Recognizes these risks are top priorities of critical importance to the organization. Management is spending more effort to manage and monitor these risks by implementing risk mitigation strategies to reduce the likelihood and impact of their occurrence.			
Risk Category	Potential Risk Identified	Risk Rating Q4 2019	Mitigation	Risk Rating Q3 2019
Financial	Final project at risk of being delivered over budget.	High	Establish cost estimation, procurement, and cost control protocol to ensure budget is controlled.	Medium
Technical	Tunneling below downtown infrastructure has not been performed before in the City of Calgary to this scale.	High	Collaborative safety and technical risk assessment with contractor and City Business Units, including Fire and CEMA.	High
	Impacts of Bow River Bridge to Prince's Island urban infrastructure and environment.	Medium	Review of urban integration by bridge architect specialists, environmental assessments, and collaboration with ongoing projects (e.g. Bow River pathway upgrades) to identify impact and opportunities.	NA
	There is an inherent utilities risk in Segment 2 due to the complexity of the downtown underground area and limited time to mitigate prior to start of construction.	High	Early involvement of a Construction Manager to work with the City through the Design phase and strategize mobilization of critical items as early and efficiently as possible.	NA
Construction	Significant disruption to traffic, businesses, and communities during construction.	High	Develop support plan for businesses impacted by construction. Ensure that contract specifications clearly outline acceptable traffic impacts.	High
Legal	Clarity concerning corporate risk tolerance (e.g. definition of Contingency, Management Reserve).	Medium	Determine risk tolerance, and develop clear guidelines for managing contingency and budget, including the definition of Management Reserve. Set decision making responsibility at appropriate levels within the organization to account for degree of risk (e.g., Green Line Business Unit, Executive Steering Committee).	Medium
Procurement	City managing interfaces between multiple contracts at once.	High	Draft robust interface and integration framework and an interface schedule within each contract.	NA
	Protracted procurement process that frustrates the market and increases cost.	High	Maintain consistency with recent procurement timelines and market sensitivities to contract negotiations. Secure required resources for project of this magnitude.	Medium
Real Estate	Negotiations in Segment 2 on hold pending final approval of the alignment and successive definition of infrastructure requirements.	High	Once approval of Segment 2 is obtained, design completion will inform property requirements.	High
Environmental/ Permitting	Unanticipated contaminated materials are encountered during construction that require disposal and management.	Medium	Conduct appropriate level of Environmental Site Assessment. Develop a plan for storage of contaminated materials on site to allow for continued site operation.	NA
Safety	The magnitude of the project will require a fast pace of construction integrated within several public communities carrying on with their daily routines. This inherently increases public exposure to construction hazards even with safety measures in place.	Medium	Green Line management team and supporting resources to collaboratively participate in the development all aspects of safety in each of the respective areas to address stakeholder interaction with planned construction activities.	Medium
QA	Insufficient Quality Control and Assurance Program in place, impacting the design and construction of the project.	Medium	Develop Quality Control and Assurance Protocol and require all stages of the project to adhere to the Protocol.	Low
Communications	Not meeting stakeholder expectations for the project set during earlier phases of public consultation.	High	Inform stakeholders of project changes to reset expectations, instill confidence and address concerns.	Medium
Note: Specific legal and financial risk are not included in the public register as the procurement process is competitive and confidential in nature.				

Additional Information on Project Funding

Table 1. Stage 1 Funding and Financing by Source

Source	Capital Funding (\$ B)	Financing Funding (\$ B)	Total Funding (\$ B)
Federal	1.64	-	1.64
Provincial	1.70	-	1.70
Municipal	1.56	0.64	2.20
Totals	4.90	0.64	5.54
Notes [1] The federal and provincial government have also provided an additional \$258 M to fund enabling works construction.			

Table 2. Capital and Operating Funding and Financing

	Funds	Description	Status
1	\$4.9 billion	Stage 1 capital funding	Approved by City of Calgary, Government of Alberta and the Government of Canada.
2	\$640 million	Stage 1 financing funding	Approved and can be optimized with other City funding.
3	\$40 million/year	Net operating and maintenance costs	Estimated amount to be further refined. To be approved in a future budget cycle.
Notes [1] Line 3 is calculated in 2016 dollars.			

Table 3. Schedule of Government of Alberta Payments

Date	Stage 1 Capital Funding (\$ M)
2018-19	-
2019-20	-
2020-21	-
2021-22	25
2022-23	50
2023-24	291
2024-25	291
2025-26	291
2026-27	291
2027-28	291
TOTAL	1,530

Table 4. Funding and Financing Approvals, City of Calgary

Line	Year	Amount (\$ M)	Description
1	2014	25	<ul style="list-style-type: none"> City funding allocated to the Green Line Set Way Project Related report PFC2014-0625, September 2014
2	2014	520	<ul style="list-style-type: none"> City funding allocated for 10-years in annual \$52 million increments (2015 to 2024). Related report: Action Plan, November 2014
3	2015	1,040	<ul style="list-style-type: none"> An extension of The City's annual funding commitment of \$52 million from 10- to 30-years (2025 to 2044) that takes affect once the Government of Alberta confirms their support for the Project. Related report: NM2015-33, December 2015
4	2017	258	<ul style="list-style-type: none"> Budget approval provided by Infrastructure Canada's Public Transit Infrastructure Fund Program for Green Line Transit Way. Related report: PFC2017-0354, May 2017
5	2017	640	<ul style="list-style-type: none"> City financing funding provided over 27-years in annual \$23.7 million increments (2018-2044). Related Report: C2017-1123, November 2017
6	2019	3,060	<ul style="list-style-type: none"> Ultimate Recipient Agreement for Stage 1 signed by the Province and The City governing the Government of Canada's and Government of Alberta's \$1.53 billion funding commitments to the Project. Related Announcement: January 2019
7	2019	N/A	<ul style="list-style-type: none"> Council approval to maximize flexibility to manage cash flows most efficiently and allow City funding to be utilized to fund financing costs and capital costs for the Project. Related Report: PFC2019-0040, January 2019
8	Anticipated Q2 2020	5,543	<ul style="list-style-type: none"> Current Capital Budget approval of \$804 million. Total Funding Commitment*

*Incremental Capital Budget approval will be sought from Council in Q2 2020.