



## INFRASTRUCTURE CALGARY - TRANSPORTATION PROJECT IMPLEMENTATION PLANS

### EXECUTIVE SUMMARY

These investments will support the five (5) Transportation projects outlined below. Funding is from existing available Corporate capacity as identified by Infrastructure Calgary, the budget approval for the program/project outlined will have no net impact on the tax rate.

1. Baines Bridge Rehabilitation and Upgrading
2. 14 Street and 90 Avenue Southwest Pedestrian Bridge
3. 194 Avenue South Slough Crossing and CPR Grade Separation
4. Crowchild Trail Short Term Improvements
5. Glenmore Trail and 68 Street Southeast Intersection Enhancement

### ADMINISTRATION RECOMMENDATION(S)

That the SPC on Transportation and Transit recommends that Council:

1. Receive for information the Transportation implementation plans in Attachment 1.
2. Approve capital budget as per Attachment 2 to be funded by corporate capacity identified by Infrastructure Calgary.
3. Direct that Attachment 2 be heard in-camera pursuant to subsection 23(1)(b) of the *Freedom of Information and Protection of Privacy Act* and remain confidential pursuant to subsections 24(1)(a) and 24(1)(g) of the *Freedom of Information and Protection of Privacy Act* until all implementation plans are approved by Council and the contract(s) for the project(s) considered in this report are awarded.
4. Receive this report as an item of Urgent Business for the 2017 April 24 Regular Meeting of Council.

### RECOMMENDATION OF THE SPC ON TRANSPORTATION AND TRANSIT, DATED 2017 APRIL 19:

That Council:

1. Receive for information the Transportation Implementation Plans in Attachment 1;
2. Approve capital budget as per Attachment 2 to be funded by corporate capacity identified by Infrastructure Calgary; and
3. **Direct that Attachment 2 be heard In Camera and remain confidential pursuant to sections 23(1)(b), 24(1)(a) and 24(1)(g) of the *Freedom of Information and Protection of Privacy Act* until all implementation plans are approved by Council and the contract(s) for the project(s) considered in this report are awarded, unless it is determined by the Directors of Supply and the responsible business unit to be appropriate to release budget information in advance of the contract(s) being awarded.**

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### **PREVIOUS COUNCIL DIRECTION / POLICY**

At its 2017 March 06 Strategic meeting, Council adopted report C2017-0214 which included the following direction:

“Direct Administration to return with implementation plans, including refined capital estimates, public consultation plans and financing strategies, to the Priorities and Finance Committee or the appropriate Standing Policy Committee as soon as possible for final approval by Council.”

Prior to receiving the direction above, as part of the Action Plan Mid Cycle Adjustments report to Council on 21 November 2016, Council approved the Capital Investment Plan and authorized the Deputy City Manager to continue to identify capital funding sources, including allocations and efficiencies from existing capital budgets and to transfer funds to the Budget Savings Account. The Deputy City Manager was directed to return to Council no later than Q2 2017 with recommendations for new, or currently unfunded investment projects.

### **BACKGROUND**

Infrastructure Calgary is a corporate program created to align and optimize capital investments and strengthen investment decision making and the processes involved in capital planning management.

In response to Council direction, Infrastructure Calgary established a Director led sub-committee of the Steering Committee to lead the identification, evaluation and selection of potential projects. The sub-committee looked at funding sources identified through a corporate capacity review to determine the best alignment based on funding restrictions and guidelines.

Projects were assessed according to four key filters determined by the sub-committee: Strategic Alignment, Project Readiness, Project Financials and Project Value and Benefit. After application of these filters, a peer review process looked at a project's ability to provide short term economic stimulus, add resilience in the community, including flood protection, maintain and preserve The City's existing infrastructure and community assets through lifecycle funding, build a great community through legacy investments, and leverage public and private investment.

As a result of this work, Infrastructure Calgary recommended twenty-one programs/projects to Council and received approval in principle. Individual implementation plans require Council approval.

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### **INVESTIGATION: ALTERNATIVES AND ANALYSIS**

The Transportation Department has completed implementation plans for the following projects:

1. Baines Bridge Rehabilitation and Upgrading
2. 14 Street and 90 Avenue Southwest Pedestrian Bridge
3. 194 Avenue South Slough Crossing and CPR Grade Separation
4. Crowchild Trail Short Term Improvements
5. Glenmore Trail and 68 Street Southeast Intersection Enhancement

Project implementation plans have been included for each project in Attachment 1.

Many of the above projects have recently gone to council outlining in more detail the project scope, cost and timing:

- 14 Street and 90 Avenue Southwest Pedestrian Bridge: 2017, January 18 – report TT2017-0012
- Crowchild Trail Improvements: 2016 July 20 – report TT2016-0599 and 2017 April 19 – report TT2017-0329 to SPC on Transportation and Transit.

### **Stakeholder Engagement, Research and Communication**

See Attachment 1 for details on each project.

### **Strategic Alignment**

See Attachment 1 for details on each project.

### **Social, Environmental, Economic (External)**

See Attachment 1 for details on each project.

### **Financial Capacity**

#### **Current and Future Operating Budget:**

There are anticipated operating budget impacts for these projects as outlined in Attachment 1. Any impacts associated with the capital project will be considered in the next budget cycle.

#### **Current and Future Capital Budget:**

A capital budget approval is requested as per the implementation plans in Attachment 2. This budget request is to be funded by existing corporate capacity identified in report C2017-0214, which includes the capital budget savings account, corporate reserves, off-site levies and grant funding, and will have no net impact on the tax rate. The projects identified in Attachment 2 will primarily be funded by Program 888 – Corporate Capital Program. The requested budget and funding is consistent with the information provided by Infrastructure Calgary as part of report C2017-0214. Once the implementation plans for all projects are complete, funding allocations will be confirmed to optimize the use of the most restricted sources of funding.

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### Risk Assessment

See Attachment 1 for details on each project.

### REASON(S) FOR RECOMMENDATION(S):

Approval of these projects will advance construction timing, resulting in increased short term and long term job growth, leveraging of partners for cost sharing of projects, and stimulation of the economy.

Several of these projects are tender ready and will be able to advance to tender and construction quickly. This will allow the city to take advantage of the current market conditions with lower bid prices and get better value for our investment.

### Attachments

1. Infrastructure Calgary Implementation Plans – Transportation
2. Financing Strategies - Infrastructure Calgary Implementation Plans – Transportation (Confidential)
3. Project Locations and Proposed Designs



## 1. OVERVIEW

<b>Recommended Capital Project Description</b>		<b>Baines Bridge Rehabilitation and Upgrading</b>		
<b>Executive summary</b> <i>Provide a brief description of the project and what it is expected to deliver. Capture only the essential elements of the business case, including most pertinent facts, in a clear, concise and strategic manner.</i>		Baines bridge is located at Zoo Rd. and Memorial Dr. The bridge requires lifecycle maintenance rehabilitation. As part of the scope of work the sidewalk will be widened on one side to provide a multi-use pathway that will be integrated with the pathway system in the vicinity and will complement the recent improvements by the City and CMLC on St. Patrick's Island. The railings will be upgraded to meet current safety standards for all users (pedestrians, cyclists and wheelchair). In order to minimize traffic disruptions this work needs to be completed in 2017 while Zoo Rd. is currently closed for the 12 St. bridge replacement and zoo flood mitigation work which will be completed in the fall of 2017.		
<b>Expected Key Deliverables</b>		Extended life cycle of bridge by a minimum of 10 years and add additional functional and aesthetic upgrades to pedestrian connectivity in the area.		
<b>Benefits</b> <i>Describe and/or quantify value and outcomes of project</i>	<b>Economic</b>	Gross Output: 3,393,036		
		Gross Domestic Product (GDP): 2,117,856		
		Income: 1,025,808		
		Employment: 15		
	<b>Social</b>	Community outcomes (e.g. safety, health, attractive and well-designed city, inclusion and diversity): Improved safety due to higher railings and improved connections that promote active lifestyles such as walking and cycling. Leveraging current road closure so that the road does not need to be closed again to perform this work.		
	<b>Environmental</b>	Improvements to infrastructure for walking and cycling contributes to reduced GHG emissions.		
<b>Return on Investment</b> <i>Describe short and long term investment returns including expected financial, social and environmental considerations, avoided costs etc. Include quantifiable and qualitative returns.</i>		<p>The timing of the proposed work would align with and take advantage of the current Zoo Road closure and therefore avoid impacts to vehicle and pathway users from occurring over a longer duration.</p> <p>The west sidewalk of the bridge will be widened and tie into the new regional pathway along Zoo Road which will improve safety, mobility and experience of the pathway users. The sidewalk modification will improve the walkable environment and pathway connectivity in the region, and is supported by several goals and objectives in the Calgary Transportation Plan and Municipal Development Plan.</p> <p>The work includes functional upgrades to extend the service life and significantly reduce maintenance costs in the short term. Aesthetic upgrades will be made to the visible areas of the structure with some design elements carried over from the 12<sup>th</sup> St bridge project.</p>		
<b>Project location</b>	<b>Address, Ward/ Catchment</b>	Ward 9	<b>Project type (MUGS)</b>	M - Maintenance
<b>Business Unit (BU)</b>		<b>Transportation Infrastructure</b>		
<b>Strategic Alignment</b> <i>IC has this information and will complete this section</i>		Council Priorities	A city that moves, A well run city	

	Capital Investment Plan	Transportation and Transit
	Calgary Economic Development (CED) 10 year Economic Strategy: Focus	Community
	CED 10 year Economic Strategy: Strategy	2
	CED 10 year Economic Strategy: Action	1

## 2. RESILIENCE

<b>Project / Program Assumptions</b>	Proposed investment will align with current closure of bridge
<b>Constraints</b>	Schedule of 12 Street bridge replacement
<b>Dependencies:</b>	12 Street bridge replacement, Zoo Road flood mitigation project
<b>Risk(s):</b> <i>Describe any known risks</i>	Funding is required by June 1, 2017 in order to coordinate with existing projects schedules.

## 3. PUBLIC CONSULTATION PLANS

<i>Provide a brief description of public consultation completed and the dates of consultation.</i>	Zoo Road is currently closed to the public and this project will utilize the existing closure.
<i>Provide a brief description of public consultation outstanding and the dates of the planned consultation.</i>	Information session tentatively planned for April/May alongside Zoo Flood Mitigation project and 12 <sup>th</sup> St Bridge.

## 4. CAPITAL ESTIMATES

<b>Estimate Class</b>	3
<b>External Funding (Anticipated / Received)</b> <i>List funding source and their contribution to the total cost estimate</i>	None anticipated or received
<b>Operating Impact</b> <i>Describe operating impact of investment if any (i.e. whether new or able to be absorbed within existing operating budget). Where possible provide a precise financial and operating response identifying operating benefits of the investment. Operational efficiencies may also be identified.</i>	The work would provide a direct positive impact to operating costs with minimal/no bridge repairs or maintenance expected in the next 10 years.

## 1. OVERVIEW

<b>Recommended Capital Project Description</b>		<b>14 Street and 90 Avenue Southwest Pedestrian Bridge</b>	
<b>Executive summary</b> <i>Provide a brief description of the project and what it is expected to deliver. Capture only the essential elements of the business case, including most pertinent facts, in a clear, concise and strategic manner.</i>		<p>The project is for the construction of a pedestrian bridge across 14 St. at 90 Ave SW. This project was approved by Council in January 2017 under report TT2017-0012. The pedestrian bridge will be constructed at the same time as the Southwest BRT project. The bridge will connect the communities of Pump Hill, Bayview and Palliser and the Glenmore Landing Shopping Centre with the community of Haysboro.</p>	
<b>Expected Key Deliverables</b>		<ul style="list-style-type: none"> <li>Improved safety for pedestrian and cyclist crossing of 14 St.</li> <li>Improved connectivity to new BRT station to be constructed at Glenmore Landing Shopping Centre.</li> <li>Improved connectivity to regional pathway system.</li> </ul>	
<b>Benefits</b> <i>Describe and/or quantify value and outcomes of project</i>	<b>Economic</b>	Gross Output: 11,875,627	
		Gross Domestic Product (GDP): 7,412,496	
		Income: 3,590,329	
		Employment: 51	
	<b>Social</b>	Community outcomes (e.g. safety, health, attractive and well-designed city, inclusion and diversity): Improved safety, promotion of healthy lifestyle for walking/cycling and transit use	
	<b>Environmental</b>	Use of transit, walking and cycling all contribute to reduced GHG emissions.	
<b>Return on Investment</b> <i>Describe short and long term investment returns including expected financial, social and environmental considerations, avoided costs etc. Include quantifiable and qualitative returns.</i>		<p>The new pedestrian overpass aligns with Council Priorities from Action Plan 2015-2018.</p> <p>Specifically, the overpass will address:</p> <ol style="list-style-type: none"> <li>1. A city that moves – responding to the need for a variety of affordable and efficient transportation choices.</li> <li>2. A healthy and green city – responding to the need to encourage healthy lifestyles for all Calgarians and connecting communities to the regional pathway system.</li> </ol> <p>The pedestrian overpass also supports: the goals and objectives outlined in the Calgary Transportation Plan (CTP) and Municipal Development Plan (MDP) (2009); the 2020 Sustainability Direction (2010); and Step Forward – a strategic plan for improving walking in Calgary (2016).</p>	
<b>Project location</b>	<b>Address, Ward/ Catchment</b>	City-wide, Ward 11	<b>Project type (MUGS)</b> G - Growth
<b>Business Unit (BU)</b>		<b>Transportation Infrastructure</b>	
<b>Strategic Alignment</b> <i>IC has this information and will complete this section</i>		Council Priorities	A city of inspiring neighbourhoods, A city that moves, A healthy and green city



## Infrastructure Calgary Implementation Plans – Transportation

	Capital Investment Plan	Transportation and Transit, Growth
	Calgary Economic Development (CED) 10 year Economic Strategy:	Community
	CED 10 year Economic Strategy: Strategy	2
	CED 10 year Economic Strategy: Action	1

### 2. RESILIENCE

<b>Project / Program Assumptions</b>	Construction of pedestrian bridge will be undertaken at the same time as the SW BRT project, limiting the impact to Calgarians.
<b>Constraints</b>	Location of the ramps for the pedestrian bridge is contingent on road right of way, access to BRT station and connection to communities. The locations of the ramps is part of the public engagement currently underway.
<b>Dependencies:</b>	Delivery of project at the same time as the SW BRT schedule, utility relocation and upgrading.
<b>Risk(s):</b> <i>Describe any known risks</i>	Community concerns regarding SW BRT project

### 3. PUBLIC CONSULTATION PLANS

<i>Provide a brief description of public consultation completed and the dates of consultation.</i>	Online engagement as part of the Southwest BRT Facilitated Citizen Involvement was undertaken from February 22 to March 8, 2017. In person meetings with the Community Associations for Haysboro and Pumphill, Bayview, and Palliser were held March 7 and March 16 respectively. A facilitated workshop with members of the community associations and key stakeholders was held on March 18, 2017.  A What We Heard report will be available online by the end of April 2017.
<i>Provide a brief description of public consultation outstanding and the dates of the planned consultation.</i>	Further discussions will be held with the two adjacent community associations as well as Glenmore Landing Shopping Centre owner and the Jewish Community Centre as the detailed design progresses.



## Infrastructure Calgary Implementation Plans – Transportation

### 4. CAPITAL ESTIMATES

<b>Estimate Class</b>	4
<b>External Funding (Anticipated / Received)</b> <i>List funding source and their contribution to the total cost estimate</i>	None anticipated or received
<b>Operating Impact</b> <i>Describe operating impact of investment if any (i.e. whether new or able to be absorbed within existing operating budget). Where possible provide a precise financial and operating response identifying operating benefits of the investment. Operational efficiencies may also be identified.</i>	The proposed pedestrian overpass will not have a significant effect on the existing operating budget. There will be increased costs for life cycle maintenance and inspections and annual costs for cleaning and snow and ice clearing. These additional costs can be accommodated within the existing operating budget. Estimated cost is \$5000-\$7000 per year.



## 1. OVERVIEW

<b>Recommended Capital Project Description</b>		<b>194 Avenue South Slough Crossing and CPR Grade Separation</b>		
<b>Executive summary</b> <i>Provide a brief description of the project and what it is expected to deliver. Capture only the essential elements of the business case, including most pertinent facts, in a clear, concise and strategic manner.</i>		<p>This project is for the extension of 194 Avenue South from Macleod Trail westerly to Sheriff King Street. The work includes a crossing over the Priddis slough and a grade separation over the CPR line and future LRT. This project will support current and planned growth of adjacent developments by providing an east-west connection across Macleod Trail south of Highway 22X.</p> <p>Funding is required to pay for front ending of developer contribution for road construction of 194 Ave. from the CPR line to Sheriff King Street and for additional costs related to challenging geological conditions and construction in the wetland.</p>		
<b>Expected Key Deliverables</b>		<p>The Priddis slough and CPR line to the west of Macleod Trail serve as a barrier to enhanced east-west connection out of the communities of Silverado and future communities of West Macleod. Construction of the 194 Avenue crossing of the Priddis slough and CPR grade separation will allow for an east-west connection to service this fast-growing area. This project will align investment in South Macleod to support The City's Growth Management priorities.</p> <p>This project will provide a needed second access to West Macleod as the current all-turns intersection at 6 St SW will be converted to a half-interchange with the completion of the Southwest Ring Road. This project also aligns with the Calgary Fire Department Servicing Plan for all of South Macleod and is a requirement for Fire to adequately serve this area with its proposed new station.</p>		
<b>Benefits</b> <i>Describe and/or quantify value and outcomes of project</i>	<b>Economic</b>	Gross Output: 33,930,363		
		Gross Domestic Product (GDP): 21,178,561		
		Income: 10,258,083		
		Employment: 145		
	<b>Social</b>	Community outcomes (e.g. safety, health, attractive and well-designed city, inclusion and diversity): Improved traffic flow, improved safety, supports adjacent residential development.		
	<b>Environmental</b>	A wildlife crossing and accommodating the wetland and Priddis Slough are part of the project.		
<b>Return on Investment</b> <i>Describe short and long term investment returns including expected financial, social and environmental considerations, avoided costs etc. Include quantifiable and qualitative returns.</i>		Construction of 194 Avenue Southeast extension will enable and support development in the West Macleod Area. 194 Avenue is essential to provide a reliable route for the Calgary Fire Department with the roadway crossing over CP tracks. This road is especially needed in light of the traffic restrictions at 6th Street SW during the Calgary Southwest Ring Road construction.		
<b>Project location</b>	<b>Address, Ward/ Catchment</b>	Ward 14	<b>Project type (MUGS)</b>	G - Growth
<b>Business Unit (BU)</b>		<b>Transportation Infrastructure</b>		

<b>Strategic Alignment</b> <i>IC has this information and will complete this section</i>	Council Priorities	A city that moves, A city of inspiring neighbourhoods
	Capital Investment Plan	Transportation and Transit, Growth
	Calgary Economic Development (CED) 10 year Economic Strategy: Focus	Community
	CED 10 year Economic Strategy: Strategy	2
	CED 10 year Economic Strategy: Action	1

## 2. RESILIENCE

<b>Project / Program Assumptions</b>	<ul style="list-style-type: none"> <li>Provides an additional access to the West MacLeod area which improves resilience.</li> <li>Pre builds future LRT grade separation which reduces the dependency on automobile and will promote future transit access to the community</li> </ul>
<b>Constraints</b>	Land acquisition – currently underway
<b>Dependencies:</b>	Underground utility servicing underway by UEP
<b>Risk(s):</b> <i>Describe any known risks</i>	<ul style="list-style-type: none"> <li>Fill material availability</li> <li>Regulatory approvals</li> </ul>

## 3. PUBLIC CONSULTATION PLANS

<i>Provide a brief description of public consultation completed and the dates of consultation.</i>	Communication and engagement was an important component of the Macleod and 194 Avenue Connection planning process. Information sessions for the project were held in February 2015 and June 2015. A third Information Session took place on March 15, 2017, to provide a further update about the project.
<i>Provide a brief description of public consultation outstanding and the dates of the planned consultation.</i>	No further consultations are planned. Regular project updates will be provided on the project web page.



## Infrastructure Calgary Implementation Plans – Transportation

### 4. CAPITAL ESTIMATES

<b>Estimate Class</b>	2
<b>External Funding (Anticipated / Received)</b> <i>List funding source and their contribution to the total cost estimate</i>	None anticipated or received
<b>Operating Impact</b> <i>Describe operating impact of investment if any (i.e. whether new or able to be absorbed within existing operating budget). Where possible provide a precise financial and operating response identifying operating benefits of the investment. Operational efficiencies may also be identified.</i>	<p>Addition of 8.4 lane-km will add sweeping, snow clearing, and boulevard maintenance of approximately \$73,500 per year.</p> <p>Structures maintenance will also increase with the addition of three new structures, with activities such as</p> <ul style="list-style-type: none"> <li>• Inspections,</li> <li>• Deck and pier washing,</li> </ul> <p>Surface course replacement of approximately \$56,000/per year</p>



# Infrastructure Calgary Implementation Plans – Transportation

## 1. OVERVIEW

Recommended Capital Project Description		Crowchild Trail Short Term Improvements		
<b>Executive summary</b> <i>Provide a brief description of the project and what it is expected to deliver. Capture only the essential elements of the business case, including most pertinent facts, in a clear, concise and strategic manner.</i>		<p>Crowchild Trail is an important skeletal roadway in Calgary's Transportation network, with over 100,000 vehicles per day crossing the Bow River. It plays an important role in the movement of goods and services in a reliable and efficient way to key destinations, and serves as a vital link for the delivery of health and emergency services throughout Calgary and southern Alberta. The Bow River crossing is contributing to several functional and operational challenges, with significant bottlenecks resulting from weaving, added and dropped lanes, and lack of continuous lanes from as far south as Glenmore Tr. SW to 16 Ave. NW. The improvements will extend the life of the existing bridges as well as provide improvements to traffic flow through the area.</p>		
<b>Expected Key Deliverables</b>		<p>The project was identified in the Crowchild Trail Study. See report TT2016-0599. A follow up report will be presented to the April 19, 2017 SPC on Transportation and Transit. Improvements include development of one new core through lane on Crowchild Trail achieved through bridge rehabilitation, widening of the bridge across the Bow River, widening of the bridge across Memorial Dr., ramp reconfiguration and roadway reconfiguration. Modest improvements to the pedestrian and active modes routes connecting to the Bow River pathway system, improvements to transit bus stops along Crowchild Tr., and some upgrades to noise attenuation walls where gaps or openings currently exist, can be achieved through implementation of the short-term plan.</p> <p>The existing Crowchild Trail bridges require major lifecycle rehabilitation, which is required regardless of the additional lane. The additional lane investment leverages this already programmed lifecycle work.</p>		
<b>Benefits</b> <i>Describe and/or quantify value and outcomes of project</i>	<b>Economic</b>	Gross Output: 118,756,271		
		Gross Domestic Product (GDP): 74,124,962		
		Income: 35,903,289		
		Employment: 508		
	<b>Social</b>	Community outcomes (e.g. safety, health, attractive and well-designed city, inclusion and diversity): Improved traffic flow, improved safety		
	<b>Environmental</b>	Improved facilities for transit, walking and cycling all contribute to reduced GHG emissions.		
<b>Return on Investment</b> <i>Describe short and long term investment returns including expected financial, social and environmental considerations, avoided costs etc. Include quantifiable and qualitative returns.</i>		<p>This project leverages Administration's combined efforts and resources with the extensive engagement with Calgarians throughout the study. The project will improve traffic flow as well as provide active mode and transit improvements with increased access along and across the corridor. This project reflects the feedback received from Calgarians over the last two years, and provides Calgarians immediate benefit and investment value for the coming years.</p>		
<b>Project location</b>	<b>Address, Ward/ Catchment</b>	City-wide, Ward 7	<b>Project type (MUGS)</b>	U - Upgrade
<b>Business Unit (BU)</b>		<b>Transportation Infrastructure</b>		



## Infrastructure Calgary Implementation Plans – Transportation

<b>Strategic Alignment</b> <i>IC has this information and will complete this section</i>	Council Priorities	A city that moves, A prosperous city
	Capital Investment Plan	Transportation and Transit, Innovation, Education and Wellness District
	Calgary Economic Development (CED) 10 year Economic Strategy:	Community
	CED 10 year Economic Strategy: Strategy	2
	CED 10 year Economic Strategy: Action	1

### 2. RESILIENCE

<b>Project / Program Assumptions</b>	Coordination with other city projects in the area.
<b>Constraints</b>	Regulatory requirements for working over water
<b>Dependencies:</b>	Final Crowchild Study recommendations to be presented to Council April 2017.
<b>Risk(s):</b> <i>Describe any known risks</i>	<ul style="list-style-type: none"> <li>• Work across Bow River and regulatory approvals</li> <li>• Noise wall relocation adjacent to existing community</li> <li>• Unforeseen Environmental risks such as contaminated soil</li> </ul>

### 3. PUBLIC CONSULTATION PLANS

<i>Provide a brief description of public consultation completed and the dates of consultation.</i>	<p>A six-phase process was developed to deliver a recommended plan for changes and upgrades to Crowchild Tr. A high level description of each phase is provided below.</p> <p>Phase 1: Engagement Process Design (Feb to Mar 2015)</p> <p>Phase 2: Confirm Project Goals (June to Sept 2015)</p> <p>Phase 3: Concept Identification (Oct 2015 to April 2016)</p> <p>Phase 4 Concept Evaluation (May to June 2016)</p> <p>Phase 5: Concept Selection and Recommendation (Aug to Oct 2016)</p> <p>Phase 6: Reporting and Completion (Nov to Dec 2016)</p> <p>A foundational element of the Crowchild Trail Study process is that it tied engagement to the entire planning and design process, whereby discussion with Calgarians drove the course of the study. Phase 1 employed a collaborative process, whereby an engagement design team (EDT) worked with the project team to develop the engagement process for the corridor study. Phases 2 through 6 employed an iterative engagement process, whereby stakeholders and the public were provided opportunities for both gathering ideas, and then refining those ideas into final confirmed output. Additional information is summarized in report TT2017-0329.</p>
<i>Provide a brief description of public consultation outstanding and the dates of the planned consultation.</i>	If approved the next stage of engagement would be focused around construction and minimizing impact to all users and surrounding residents/businesses with dates to be confirmed.





## Infrastructure Calgary Implementation Plans – Transportation

### 4. CAPITAL ESTIMATES

<b>Estimate Class</b>	Varies from Class 2 to Class 5
<b>External Funding (Anticipated / Received)</b> <i>List funding source and their contribution to the total cost estimate</i>	None anticipated or received
<b>Operating Impact</b> <i>Describe operating impact of investment if any (i.e. whether new or able to be absorbed within existing operating budget). Where possible provide a precise financial and operating response identifying operating benefits of the investment. Operational efficiencies may also be identified.</i>	<p>This project will have a minimal operating impact as a significant amount of the infrastructure already exists and the project will extend the service life of various components. This project will have a minimal operating impact as a significant amount of the infrastructure already exists and the project will extend the service life of various components.</p> <p>These costs can be absorbed within the current operating budget</p>



# Infrastructure Calgary Implementation Plans – Transportation

## 1. OVERVIEW

Recommended Capital Project Description		Glenmore Trail and 68 <sup>th</sup> Street Southeast Intersection Enhancement
<b>Executive summary</b> <i>Provide a brief description of the project and what it is expected to deliver. Capture only the essential elements of the business case, including most pertinent facts, in a clear, concise and strategic manner.</i>		<p>This project will accelerate intersection enhancements at 68 Street SE and Glenmore Trail. These enhancements would improve circulation within this important industrial growth area in the city's southeast, allow for contiguous industrial development, improving new industrial development opportunities on private and municipal-owned lands, and align with City Council's strategic objective to improve critical goods movement corridors throughout Calgary to keep our economy on the move.</p>
<b>Expected Key Deliverables</b>		<ul style="list-style-type: none"> <li>• This project includes interim intersection improvements at the Glenmore Trail and 68 Street SE intersection, including the construction of a jug-handle to more efficiently accommodate movements from southbound Stoney Trail to westbound Glenmore Trail to southbound 68<sup>th</sup> Street SE, widening of Glenmore Trail and widening of 68 Street north and south of the intersection.</li> <li>• The upgrades will provide safer, more efficient traffic movements at the Glenmore intersection.</li> <li>• The upgrades would generate City revenue through additional future industrial property taxes sooner than if left unimproved.</li> <li>• Strategic investment would open up lands both to the south and to the north of Glenmore Trail to allow for contiguous industrial development.</li> <li>• The developer-funded transportation improvements.</li> <li>• Will open up areas to south of Glenmore Trail that are currently capped. Expected to facilitate development by opening up 4.0M ft<sup>2</sup> of land that is development-permit ready around the intersection by 2019 (1.4M ft<sup>2</sup> Walton Development lands and 2.6M ft<sup>2</sup> Real Estate and Development Services lands); and 4.7M ft<sup>2</sup> of Real Estate and Development Services land by 2020.</li> </ul>
<b>Benefits</b> <i>Describe and/or quantify value and outcomes of project</i>	<b>Economic</b>	<p>This area is important to both private sector developers and City owned lands as it provides additional supply in an already developing area closely connected to rail and Stoney Trail.</p> <p>The job density in the area is expected to be typical of lighter intensity industrial development, or approximately 20 jobs per hectare on average. If permitted to develop to its full potential, the area could provide capacity for 2,000 long-term jobs. Additional construction jobs would be created to construct logistics warehouses and other light industrial buildings.</p> <p>The intersection upgrades would help generate City revenue through additional future industrial property taxes sooner than if left unimproved. The tax up-tick potential can range from approximately:</p> <ul style="list-style-type: none"> <li>• Aggressive forecast: \$1,702,879.96/year</li> <li>• Moderate forecast: \$911,876.37/year</li> <li>• Conservative forecast: \$335,248.66/year for 3 years = \$1005,745.99</li> </ul>

		Investment in this area would provide contiguous industrial development between existing industrial areas to the west and new industrial and energy developments within the Shepard area. Industrial development in southeast Calgary is integral to the continued rise of Calgary as an important engineering, design, and manufacturing centre. Warehouse and distribution activities have grown over time and will continue to grow throughout the area and around the Canadian Pacific (CP) intermodal rail facilities.		
		Gross Output: 8,482,591		
		Gross Domestic Product (GDP): 5,294,640		
		Income: 2,564,521		
		Employment: 36		
	<b>Social</b>	There is opportunity to improve the access capacity and safety at the intersection and open up lands for light to medium industrial development. Safety is important as the site has seen numerous collisions. Without sufficient infrastructure development may migrate to the surrounding municipalities.		
	<b>Environmental</b>	The City will work with Alberta Environment to mitigate environmental impacts on wetlands in the area.		
<b>Return on Investment</b> <i>Describe short and long term investment returns including expected financial, social and environmental considerations, avoided costs etc. Include quantifiable and qualitative returns.</i>		<ul style="list-style-type: none"> <li>Will support new industrial developments both to the north and south of the intersection.</li> <li>Will complete the current infrastructure requirements within this area as other leading infrastructure (fire, sanitary, storm and water) is already in place.</li> <li>Public investment is expected to trigger private investment for the intersection upgrades. The total construction value is estimated at \$11.4M. The land owners (Walton Developments and Real Estate and Development Services) will be contributing to project costs. Further investment is expected from private sector to develop the land.</li> </ul>		
<b>Project location</b>	<b>Address, Ward/ Catchment</b>	SE industrial area of the city, Ward 9	<b>Project type (MUGS)</b>	G - Growth
<b>Business Unit (BU)</b>		<b>Transportation Infrastructure</b>		
<b>Strategic Alignment</b> <i>IC has this information and will complete this section</i>		Council Priorities	A City That Moves; A Prosperous Economy	
		Capital Investment Plan	Growth	
		Calgary Economic Development (CED) 10 year Economic Strategy:	Entrepreneurial	
		CED 10 year Economic Strategy: Strategy	1	
		CED 10 year Economic Strategy: Action	4	

## 2. RESILIENCE

<b>Project / Program Assumptions</b>	<ul style="list-style-type: none"> <li>Private investment in land development and associated road works would immediately follow intersection improvements and the construction of the jug-handle</li> <li>The proposed transportation upgrades have the potential for throw-away costs once a grade-separated interchange is constructed.</li> <li>Most other major infrastructure (water, stormwater, sanitary) is in place to allow these lands to open up.</li> </ul>
<b>Constraints</b>	Regulatory approvals from Alberta Transportation for work near Stoney Trail and approval from Alberta Environment for work adjacent to wetland. In addition a new legal agreement with developers is required to outline cost sharing responsibility.
<b>Dependencies:</b>	Review and approval of detailed design by Alberta Transportation.
<b>Risk(s):</b> <i>Describe any known risks</i>	<ul style="list-style-type: none"> <li>Private investment does not move forward within expected timeframe</li> <li>Alberta Transportation and/or Alberta Environment impose other considerations/criteria that may impact project timelines and costs</li> <li>Competing municipalities may offer more attractive options for industrial developers due to potentially lower taxes, cheaper land, and desirable transportation connections.</li> <li>Need for future interchange sooner may cause some throw away costs</li> </ul>

## 3. PUBLIC CONSULTATION PLANS

<i>Provide a brief description of public consultation completed and the dates of consultation.</i>	The business case for investment in this area was developed collaboratively among The City of Calgary's Transportation Department, Director's Integrated Growth Committee (DIGC), land owners, The City's Real Estate and Development Services and Walton Development. Regular meetings were held to discuss how options for intersection upgrades, and new development opportunities aligned.
<i>Provide a brief description of public consultation outstanding and the dates of the planned consultation.</i>	Affected land owners have been consulted/informed as part of the CPAG process. Plan for public engagement still to be developed.



## Infrastructure Calgary Implementation Plans – Transportation

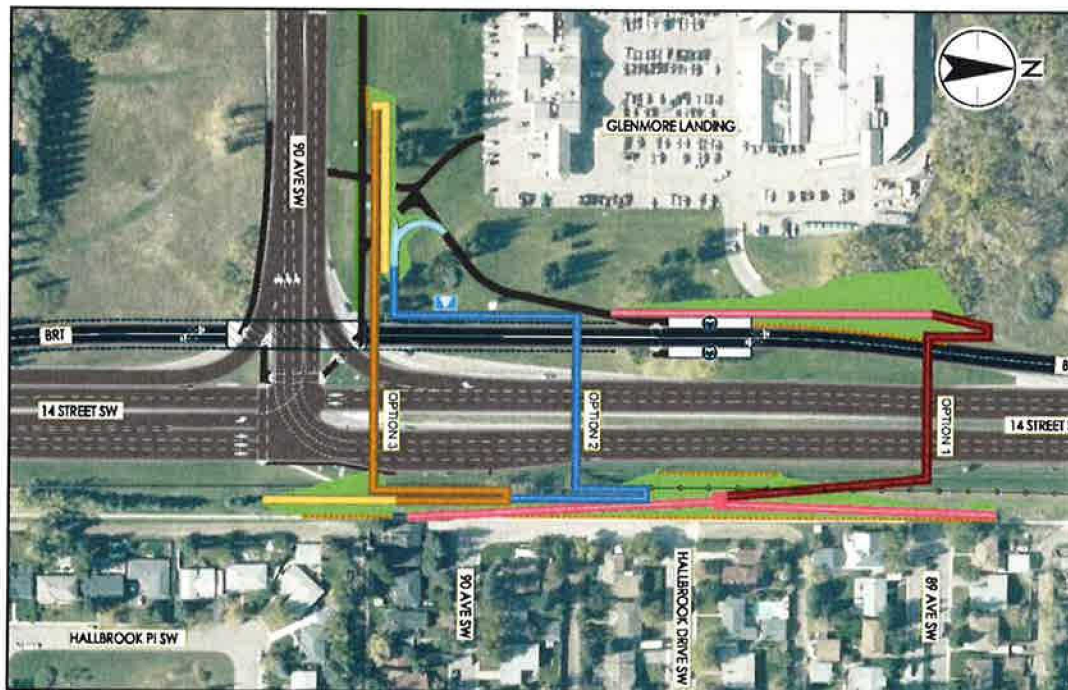
### 4. CAPITAL ESTIMATES

Estimate Class	5
<b>External Funding (Anticipated / Received)</b> <i>List funding source and their contribution to the total cost estimate</i>	None anticipated or received
<b>Operating Impact</b> <i>Describe operating impact of investment if any (i.e. whether new or able to be absorbed within existing operating budget). Where possible provide a precise financial and operating response identifying operating benefits of the investment. Operational efficiencies may also be identified.</i>	Additional lane-kms will add sweeping, snow clearing, and boulevard maintenance of approximately \$56,000 per year





2. 14 Street and 90 Avenue Southwest Pedestrian Bridge



A map of the Project Area in the City of Silverado. The map shows the city boundaries of Silverado, Somerset, Shawnessy, Sundance, Chaparral, Yorkville, and Walden. The Project Area is highlighted with a black rectangle. Major roads shown include 194 AV SW, 14V, and 14V SW. A north arrow is located in the top right corner.





#### 4. Crowchild Trail Short Term Improvements



## 5. Glenmore Trail and 68 Street Southeast Interchange Enhancement

