

## **BOWFORT/TCH INTERCHANGE PROJECT**

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### **EXECUTIVE SUMMARY**

The City of Calgary currently has an approved functional plan for an interchange at Bowfort Road and Highway 1 (Trans Canada Highway (TCH)) and \$71.7M in funding appropriated for its planning, design and construction. Cost estimates for the approved plan indicate the current level of funding is insufficient. Trinity Development Group (Trinity) is planning to develop lands adjacent to the existing Bowfort Rd/TCH intersection and this development will trigger the requirement for an interchange at the intersection. The 2008 approved plan has been revisited in response to the changes in proposed area development and the capital budget available.

This report outlines the functional planning study update completed by Trinity and Urban Systems Ltd. and identifies land acquisition requirements and project timelines. A summary of the public engagement program undertaken as part of this study is included.

### **ADMINISTRATION RECOMMENDATIONS**

That the SPC on Transportation and Transit recommend that Council:

1. Approve the Executive Summary for the refined Trans Canada Highway and Bowfort Road NW interchange functional planning study update including the updated recommended roadway plans and property requirements as summarized on pages 5 through 7 and pages 14 through 18 of Attachment 1;
2. Direct Administration to proceed with land acquisition as shown on Figure ES8 and ES9 (pages 17 and 18 of Attachment 1); and
3. Direct Administration to execute a cost-sharing agreement with Trinity Development Group to facilitate their contribution to the construction of the Bowfort Road/TCH interchange project.

### **RECOMMENDATION OF THE SPC ON TRANSPORTATION AND TRANSIT, DATED 2014 JULY 18:**

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That the Administration Recommendations contained in Report TT2014-0361 be approved.

Excerpt from the Minutes of the Regular Meeting of the SPC on Transportation and Transit, dated 2014 July 18:

### **“CLERICAL CORRECTIONS**

Administration noted clerical corrections to Report TT2014-0361 as follows:

- On Page 2 of 4, under the Heading “Stakeholder Engagement, Research and Communication”, 7<sup>th</sup> line, by deleting the year “2007”, following the words “proposed updates to the”, and by substituting with the year “2008”;
- On Page 4 of 4, under the Heading “Current and Future Capital Budget”, second paragraph, 5<sup>th</sup> line, by deleting the amount “\$71.1M”, following the words “funding over the available” and by substituting with the amount “\$71.7M”;

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On the Attachment, Page 9 of 18, in the Table ES3, under the column "Timing", across from the Heading "Tender", by deleting the year "2014" and by substituting with the year "2015", and across from the Heading "Construction" by deleting the year "2014" and by substituting with the year "2015".

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

At the 2008 November 17 Special Meeting of Council, Council approved \$75.5M in funding for Program 724, TCH/Bowfort Road interchange.

At the 2008 April 14 Council Meeting, Council approved the ISL Stage 1 design for the TCH/Bowfort Road interchange and directed Administration to negotiate with adjacent landowners for the acquisition of lands required for the project.

### **BACKGROUND**

In 2008, Council approved a tight diamond configuration for the TCH/Bowfort Road interchange and approved funding in the amount of \$75.5 million for its construction. Subsequent construction cost estimates indicated the approved interchange would cost approximately \$100 million. This funding gap resulted in the deferral of the interchange construction and The City began to examine short-term low cost intersection improvement alternatives.

In 2013, The City was approached by Trinity Development Group with a plan to cost-share a re-examination of the 2008 approved interchange plan in order to determine if a more appropriate and lower cost configuration was possible, given the increased intensity of proposed development in the area. Four interchange configurations were examined and the single-point urban interchange (SPUI) was determined to best accommodate anticipated traffic volumes and patterns and to provide the highest overall value in terms of operations, cost, property impacts, etc.

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

The TransCanada Highway/16 Avenue North is identified as a skeletal road and is a major east-west transportation route through Calgary. The TCH provides a continuous link through the city connecting to the provincial and national highway systems. The construction of an interchange at Bowfort Road will facilitate the proposed development of the Trinity and Canada Olympic Park (COP) lands in the southeast quadrant as well as redevelopment in the Bowness area to the north.

The 2039 forecast traffic volumes for the roadway assumed full build-out of the Trinity lands, Melcor property and surrounding developments. This threshold was used to test the suitability of the design options.

The Stage 1 plan recommends a six-lane cross-section for the TCH and a single-point interchange at Bowfort Road with a 6-lane bridge accommodating dual left turns in all directions and two through lanes in each direction on Bowfort Road. The Stage 1 plan ties to the existing TCH at both the east and west project limits.

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The Ultimate plan is designed to incorporate the future interchange upgrade at Stoney Trail to the west and accommodates a basket weave structure in the eastbound direction. Alberta Transportation has been consulted to ensure coordination with the TCH/Stoney Trail interchange project. The plan also accommodates the widening of the Trans Canada Highway should that be required in the future. The Stage 1 and Ultimate plans can be found in Attachment 1 on Exhibits ES5 and ES6 (pages 14 and 15).

Property is required to construct the interchange as shown in Attachment 1 on Exhibits ES8 and ES9 (pages 17 and 18). City surplus lands in the area may be used to offset the total amount of property required by negotiated land exchanges.

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

The construction of this interchange has been in the public eye for several years. As such, it has already experienced several stages of engagement including information sessions, feedback, and review with the general public, community groups, and individual property owners. The engagement strategy for this project was to continue the existing public engagement program for the Bowfort Road interchange by presenting the current design concept to the public, adjacent community groups, and impacted private landowners with the intent to gain feedback and acceptance of the proposed updates to the **2008** approved functional design. The process has been considered as a continuation of the previous engagement program and is reduced in scope from the typical program employed for a new study.

A presentation was made to the private landowners, business owners, tenants and stakeholders for the Bowfort Road and Bowridge Crescent business area on May 28, 2014. Separate meetings have been held with Winsport Development representatives as well as the owner of the Highland Gift Shoppe. The project team also presented the study update to members of the Valley Ridge Community Planning Group on June 9 and to the Bowness Community Association at their monthly meeting on June 11. Two public open houses were held in conjunction with Trinity Development Group on June 24 and June 26 to present the updated plans to the broader public.

In general, most comments received indicated support for the refined plans and encouragement to proceed with construction. Concerns were raised regarding business visibility from the TCH once the TCH is lowered along with the options available to business owners with respect to signage.

### **Strategic Alignment**

This study aligns with multiple policies in the CTP and the 2020 Sustainability Direction including:

- Transportation Goal #5 to promote economic development by providing smooth and efficient movement of people and goods (CTP 3.4)
- 'Improve Goods Movement' 2020 objective by providing free-flow operations on the TCH
- Transportation Goal #1 by providing better connectivity for major City roadways
- TBL & 'GHG Emission Reduction' 2020 Objective by easing congestion and introducing roundabouts in place of signalized intersections

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- CTP 3.6 by improving quality of service along TCH by a reduction in travel times
- MDP policy 2.2 to shape a more compact urban form by facilitating the development and intensification of the inner city communities through enhanced access, mobility and capacity.

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

This report has been reviewed for alignment with The City of Calgary's Triple Bottom Line (TBL) Policy Framework. The following implications were identified (along with mitigation strategies for negative impacts):

Social: The proposed improvements have been developed to support transit and recommended land uses. Improvements to the corridor promote active living by providing infrastructure for pedestrians and cyclists. Active modes access was a key consideration in light of the year round recreation activities at Winsport's facilities.

Environmental: Provisions for a regional pathway and on-street bicycle facilities along the corridor encourage alternate modes of transportation by providing a higher level of safety and comfort for pedestrians. Transit priority measures on the interchange were also identified which will enhance transit service in the area.

Economic (External): The proposed improvements have been developed to provide for the safe movement of goods and services. The project also removes a key bottleneck on the Trans Canada Highway making both auto and goods movement more efficient. The potential for a relaxation of the signage bylaw is being examined to ensure the continued viability of area highway commercial businesses on Bowfort Road.

### **Financial Capacity**

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

At build out, operating costs will be higher than today given the additional infrastructure added to the network. Specific incremental operating costs have not been quantified. It is anticipated that the additional operating costs can be accommodated within existing budgets.

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

Current funding for Program 724 under the 2012-2014 Capital Works budget for the construction of an interchange at TCH/Bowfort Road is **\$71.7M**, remaining from the original \$75.5M. Expenditures under this program to date have been spent on preliminary design, geotechnical work, at-grade improvements design and tender preparation, internal costs for the previous plan and communications activities.

A planning level cost estimate for Stage 1 improvements of the refined design, excluding land costs, is \$70.3M, based on 2013 construction cost rates. The City of Calgary has been in discussions with area developers to examine options for delivery of this project, including funding/financing options. Trinity Development Group has expressed willingness to contribute required funding over the available \$71.1 million capital budget assuming their land use application proceeds.

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### **Risk Assessment**

The interchange is necessary to accommodate the development on the Trinity lands and previously approved commercial/residential developments in Bowness by Melcor. The cost of constructing the interchange may be increased if deferred to a later date. The opportunity to work with willing area development partners may not be available at a later date. An amicable land exchange is essential to the feasibility of any of the designs.

### **REASONS FOR RECOMMENDATIONS:**

The recommended plans are consistent with previous work done for the Trans Canada Highway. The recommended plans allow for the facilitation of area development. The proposed infrastructure for interim and ultimate horizons meets the transportation demands for this location.

### **ATTACHMENTS:**

1. Trans Canada Highway and Bowfort Road NW Interchange Functional Planning Study Update – Executive Summary