



Deep Roots
Greater Heights

District of Maple Ridge

TO: His Worship Mayor Gordon Robson
and Members of Council
DATE: May 5, 2008

FROM: Chief Administrative Officer
FILE NO: E02-011-029

SUBJECT: 240 Street Bridge Feasibility Study
ATTN: Workshop

EXECUTIVE SUMMARY:

In 2007, Council approved the commissioning of a feasibility study and conceptual design for a bridge over the South Alouette River with an alignment in the vicinity of 240 Street.

The investigation undertaken by Associated Engineering Consultants has been completed and this report summarizes the findings and the next steps.

RECOMMENDATION:

This report is for information.

DISCUSSION:

a) Background Context:

The District has recognized a future need for a second crossing over the South Alouette River east of 232 Street. In response to feedback from area residents, Council advanced the feasibility study for the bridge to commence in late 2007. The feasibility study conducted by Associated Engineering Consultants examined the following:

- environmental considerations such as fish species, trees and vegetation
- hydraulic considerations since minor reductions in river cross sections at the proposed location may increase the hydraulic grade line upstream
- geotechnical considerations because the soil stratigraphy varies considerably between the north and south banks of the river. There are significantly deeper unstable deposits on the south bank, as well as steep valley walls that required investigation. The study also examined the use of abutments and fill as well as an elevated structure.
- road users. The study also considered the use of vehicles, pedestrians, cyclists, equestrian users and other modes.
- roadway geometry. The feasibility study was based on two 4.3 metre shared lanes (for cars and bicycles), a 1.5 metre sidewalk on one side and a 4.0 metre shared multi-use path on the other. The roadway is based on a 50 km per hour

posted speed and the maximum grade is limited to 6%. Access to residential properties and major intersections was identified and will require further study.

- The study also examined alignments along 240 Street and along 128 Avenue for comparison purposes.

Study findings

The feasibility and conceptual study confirms the 240 Street alignment as the preferred alignment based on a number of factors including:

- geotechnical considerations,
- property impacts,
- costs, and
- road geometry.

Cost Estimates

The current cost estimates for the two alignments are as follows:

240 Street	\$31 million
128 Avenue	\$72 million

Based on the study, it is proposed that the bridge over the South Alouette River will be along the 240 Street alignment and span a total of approximately 440 metres and be supported at intervals between 30 and 40 metres.

Issues for further study

Consultation with area residents is required and an Open House is planned for the month of June. Further environmental assessments have been identified to be completed. As well, the integration of the 240 Street bridge and approaches with adjacent intersections such as with Abernethy Way, 124 Avenue and Fern Crescent are still required.

Next Steps

A public information meeting will be held to present the findings of the feasibility study.

b) Desired Outcome:

The desired outcome of this report is to update Council on the findings of the feasibility study.

c) Strategic Alignment:

The Corporate Strategic Plan directs that municipal infrastructure be protected and managed through the preparation of appropriate plans. In addition, the Corporate Strategic Plan directs that the District will maintain and enhance a multi-modal transportation system to provide citizens with safe, efficient alternatives for the movement of individuals and goods. This crossing will increase the level of service to residents of Maple Ridge.

d) Citizen/Customer Implications:

The study confirms the feasibility of a crossing along the 240 Street alignment. While it offers greater access and reliability to a variety of users, the bridge will impact residents in the area.

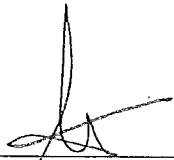
f) Business Plan/Financial Implications:

The current financial plan includes approximately \$24 million for the construction of the bridge in 2010. However, the funding is based as follows and require updating in future Business Plans:

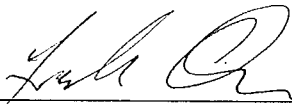
Capital Works Reserve	\$ 82,057
Development Cost charges (debt)	\$ 8,160,000
Grants	<u>\$15,840,000</u>
Total	\$24,082,057

CONCLUSIONS:

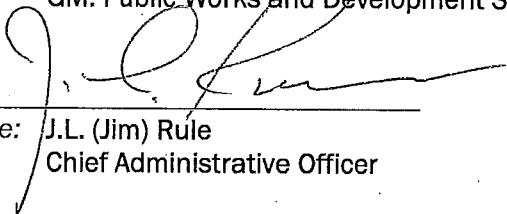
A feasibility study of a crossing over the South Alouette River has been completed and is presented. The information will be made available at a public meeting. As well, further work will be required. Advancing the work will be reviewed and submitted in the 2009-2013 Business Plan.



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Concurrence: J.L. (Jim) Rule
Chief Administrative Officer

AW/mi