

NO: **167:** COUNCIL DATE: **October 5, 2009**

REGULAR COUNCIL

TO: **Mayor & Council** DATE: **September 14, 2009**
FROM: **General Manager, Engineering** FILE: **5400-80-(08400)**
SUBJECT: **84 Avenue between King George Highway and 140 Street**

RECOMMENDATION

The Engineering Department recommends that Council:

1. endorse the extension of 84 Avenue between King George Highway and 140 Street and authorize staff to proceed with the design of this section; and
2. direct staff to undertake a stakeholder and public consultation process as part of the design process for this project so that the various interests and priorities are given due consideration in the final design.

INTENT

The purpose of this report is to discuss the need for establishing alternative east-west corridors through Newton with a view to improving motorist safety and reducing congestion and travel times along the 88 Avenue corridor and in particular at the KGH/ 88 Avenue intersection and to seek Council authorization to proceed with the design of 84 Avenue between KGH and 140 Street.

BACKGROUND

The 88 Avenue/KGH intersection is currently one of the top 10 worst motor vehicle accident locations in the Province. Traffic volumes at this intersection exceed 85,000 vehicles per day (vpd) resulting in excessive queuing and a 'failed' level of service during peak hours. The Engineering Department has been exploring options to address this congestion issue for many years.

At the July 21, 2009 Transportation Committee meeting, Engineering presented potential solutions to help address the safety and congestion at the King George Highway/88 Avenue intersection. A key conclusion of this presentation was completion of the missing 84 Avenue link between King George Highway and 140 Street.

The Transportation Committee supported the conclusions and adopted the following resolution:

"That the Transportation Committee supports the 84 Avenue link between King George Highway and 140 Street as a critical link needed by the City, and that staff prepare a report for Council's consideration."

DISCUSSION

Strategic Network Review

As part of the development of the Transportation Strategic Plan (TSP) that was adopted by Council in late 2008, a public consultation process was undertaken to identify priorities from the public. The public identified completion of strategic road network links in the City as an important priority. The Early Actions component of the Implementation Strategy for the TSP included a review and prioritization of the strategic road network “missing links” throughout the City. The review identified road connections needed to support the City’s future growth and economic prosperity and to provide opportunity for alternative transportation choices.

A number of links have been identified as being important including:

1. 84 Avenue: KGH to 140 Street and 124 Street to 128 Street
2. 128 Street: 108 Avenue to KGH
3. 105 Avenue between City Centre and Guildford
4. East Whalley Ring Road in the City Centre
5. West Whalley Ring Road in the City Centre

Completion of 84 Avenue, between KGH and 140 Street, has been identified as having significant value in that it would provide an alternative to 88 Avenue, which is currently the only continuous route across the City between 64 and 96 Avenues. If 84 Avenue were connected between KGH and 140 Street it would improve traffic congestion on 88 Avenue and provide a more direct route between residential and business areas east and west of KGH south of 88 Avenue. The reduced congestion at the KGH/88 Avenue intersection would improve the safety of the intersection and would reduce travel times for motorists on 88 Avenue. Fire Hall Number 1, on 88 Avenue, is Canada’s busiest fire hall and reducing congestion at 88 Avenue and King George Highway would help reduce response times for incidents east of King George Highway. This would also have environmental benefit due to reduced Green House Gas (GHG) emissions.

History of 84 Avenue Between KGH and 140 Street

The City has considered this project in each of 2000 and 2007. A public opinion phone survey conducted in 2000 of residents in neighbourhoods along the 84 Avenue corridor indicated that 67% of the respondents fully supported the project. Approximately 80% of the respondents supported the project if there were no major environmental impacts to Bear Creek Park. In 2000, during the public consultation phase of the project, strong opposition emerged mainly from the owners and occupants of residences that front on 84 Avenue to the east of 140 Street. Concerns included increased levels of traffic, visual impact and environmental impact to wildlife and creeks in Bear Creek Park.

Given the opposition and limited studies and information to support the project, Council at that time voted to hold the project for future consideration.

In 2007, based on increased traffic congestion on 88 Avenue and a continued poor safety record at the KGH/88 Avenue intersection, the project was once again brought forward for Council consideration. Council directed staff to undertake further studies of the key issues and seek consultant input on traffic solutions for the wider area.

Study Results

The following key studies have been undertaken:

a) KGH/88 Avenue Intersection Study (2004):

This study focused on the development and assessment of alternatives to address current and predicted traffic volumes and motorist safety concerns at the KGH/88 Avenue intersection. The long-term solutions that were examined involved grade-separated interchange options. It has since been concluded that these options are out of context with the local area, were expensive, and simply moved the congestion and issues to surrounding intersections.

b) Cost-Benefit Study of E-W Corridor Improvement Options (2005):

This study included modeling of current and predicted future traffic flows and travel patterns. Cost benefit analysis was undertaken on the alternatives reviewed in the 2004 study referenced above and on the completion of 84 and 80 Avenues both east and west of KGH. The study concluded that completion of 84 Avenue between King George Highway and 140 Street had a benefit/cost ratio of 5.4 and would divert significant traffic volumes away from 88 Avenue, relieving pressure on that corridor and the KGH/88 Avenue intersection. The study also concluded that the benefit/cost ratios for improvements to the KGH/88 Avenue intersection as identified in the 2004 study ranged between 2.4 and 3.9, both much lower than the 84 Avenue connection.

c) Place Making and Road Network Review (2009)

The Consultant Project for Public Spaces (PPS; Fred Kent's group) were asked to review the previous studies and provide recommendations on a solution that best balanced the traffic management with the objective of creating a community environment (i.e., minimize impacts and maximize benefits for residents).

That study provided the following recommendations:

- i) Install a roundabout at the KGH/88 Avenue intersection to address volumes and safety. PPS advised that grade-separated interchanges and jug-handle solutions were out of context with the local setting due to their large footprint, visual impacts and significant costs.
- ii) Complete the 84 Avenue road connection between KGH and 140 Street as part of the implementation of a grid road network to improve east-west traffic flow through the City but based on a context sensitive design approach.

d) KGH/88 Avenue & Road Network Review (2009)

Alternate Street Design, P.A., an international expert on roundabouts, was retained to evaluate the installation of a roundabout at the KGH/88 Avenue intersection and review the broader City road network to assess opportunities to better manage traffic flows.

This study provided the following recommendations specific to the 88 Avenue corridor:

- i) A roundabout at KGH/88 Avenue is not recommended at this time due to latent demand and increased traffic volumes at nearby intersections already near saturation levels. This would be a possible option once alternate E-W and N-S routes are established.
 - ii) The City should pursue ways of reducing traffic 'pressure' at the KGH/88 Avenue intersection, through improved east-west connectivity, particularly the 84 Avenue missing links.
- e) Environmental Studies (2007):

The City has retained consultants to undertake a number of studies to evaluate impacts to wildlife and the environment should 84 Avenue be constructed along the south side of Bear Creek Park. These include a tree impact survey, preliminary field surveys and a hydrological assessment. If the 84 Avenue project proceeds to detailed design, fisheries impact, mitigation and compensation, ecological impact, mitigation and compensation, contaminated site evaluation and an environmental management plan (EMP) will all be part of the final design.

- f) Public Opinion Survey

Based on the recommendations from the consultant studies, the City recently hired Ipsos Reid to complete a telephone survey involving a sample of 600 residents (a very statistically significant sample size) to gauge public opinion regarding the completion of 84 Avenue and the wider road network. The survey confirmed public support for completion of the planned road network including 84 Avenue between KGH and 140 Street. There was strong support from respondents that the City should take action and make it a priority to invest in completing missing road sections throughout the City. Approximately 80% of residents strongly agreed or agreed that the City should complete the missing sections of "128 Street between 108 Avenue and King George Highway, of "West and East Whalley Ring Roads" and 84 Avenue to reduce traffic congestion.

Approximately 37% of residents advised that extending 84 Avenue along the south of Bear Creek Park would negatively affect their enjoyment of the Park.

The 2009 results indicate that support for the completion of 84 Avenue along the south of Bear Creek Park between KGH and 140 Street has increased to 74% from 67% in 2000. This level of support increases to 80% (unchanged from the 2000 survey) if environmental impacts to trees, creeks and wildlife are minimized.

Summary of Benefits Related to the Completion of 84 Avenue

The completion of 84 Avenue is the first of several major road construction projects that staff is recommending be undertaken in support of the City's transportation, community safety, and economic policies. The following benefits will be achieved through the completion of 84 Avenue:

- It will provide a new continuous east-west route between 64 and 96 Avenues with a connection to Fraser Highway to the east and the potential to extend to Nordel Way to the west;

- It will provide an alternative route to 88 Avenue acting to reduce congestion, travel times and environmental impacts by traffic on 88 Avenue;
- It will improve safety at the KGH/88 Avenue intersection;
- It will provide improved public access to the south side of Bear Creek Park for pedestrians and cyclists;
- It will provide CPTED benefits for Bear Creek Park by providing additional eyes on the park;
- It has significant potential as a future transit route; and
- It will allow improvements to the banks of the existing creeks in Bear Creek Park.

Proposed Consultation and Public Information Strategy

The City has retained a communications consultant to facilitate public consultation and ensure a comprehensive approach is taken to allow for both local and broader community interests to be examined and considered as part of the design of 84 Avenue.

Input from Local Residents and Stakeholders

Smaller focus group meetings will be organized including resident, business and religious groups that are more directly affected by the proposed road. This approach will allow for in-depth exchange of information. The focus groups will also provide an opportunity for City staff to explain the intentions for the project, engage in open dialogue and record any issues and opportunities that may be presented through the dialogue. Group participants will be invited to discuss a range of design elements including bicycle facilities, median and boulevard landscaping, lighting options and access to the park. The 2007 proposed road alignment (as shown in Appendix I) will be provided as a starting point for discussion.

A summary session would be undertaken at or near the end of the focus group process.

Input from the Broader Community and Other Citizens

Recognizing the importance of the input of the broader community and users of the road network, staff will provide information to and seek input from these groups using telephone, email and/or mail-outs and the City project webpage. Regular updates and background material will be posted on the City website.

As part of the 84 Avenue design process, staff will identify and evaluate opportunities for improvements on 84 Avenue beyond the section between King George Highway and 140 Street. These will include:

- Street beautification including additional street trees and median landscaping;
- Review of existing crosswalks and evaluation of potential new crosswalks;
- Review of sidewalk condition and continuity; and
- Additional on-street bicycle lanes.

The results of the consultation process will be presented to Council including a preferred design late in 2009 or in early 2010.

CONCLUSION

The preceding discussion can be summarized by the following four points:

1. The completion of the "84 Avenue" Arterial Road is a critical road network element.
2. Increased traffic and congestion on 88 Avenue and KGH are accelerating the urgency of completing 84 Avenue to address safety and congestion issues.
3. Consultant studies and public opinion surveys indicate strong support for the connection.
4. A public consultation process is necessary to ensure the design best responds to the public's input and issues.

Therefore, it is recommended that Council:

1. endorse the extension of 84 Avenue between King George Highway and 140 Street and authorize staff to proceed with the design of this section; and
2. direct staff to undertake a stakeholder and public consultation process as part of the design process for this project so that the various interests and priorities are given due consideration in the final design.



Vincent Lalonde, P.Eng.
General Manager, Engineering

PB/JB/MD/brb:kd

Appendix I - Air Photo of Alignment

APPENDIX I



Produced by GIS Section: Sept 11, 2009, CS

Date of Aerial Photography: April 2008



84 AVENUE EXTENSION PROJECT: AIR PHOTO LOOKING SOUTH ON ALIGNMENT

ENGINEERING
DEPARTMENT

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey.
This information is provided for information and convenience purposes only.
Lot sizes, Legal descriptions and encumbrances must be confirmed at the Land Title Office.

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