



Corporate Report

NO: R232

COUNCIL DATE: NOVEMBER 5, 2007

REGULAR COUNCIL

TO: Mayor & Council DATE: November 1, 2007
FROM: General Manager, Engineering FILE: 0410-20 (mot/gate)
SUBJECT: Interchange Location and Design on
Highway No. 1 in the Vicinity of Harvie Road/192 Street

RECOMMENDATION

The Engineering Department recommends that Council:

1. Support a future Surrey Interchange on Highway 1 located on the 192 Street alignment as illustrated on Appendix III subject to:
 - a. the design of the interchange minimizing impacts on the adjacent land uses and providing for future redevelopment of the South Port Kells area to urban densities and uses in accordance with the South Port Kells General Land Use Plan; and
 - b. the interchange design facilitating access connections as identified in Appendix V; and
2. Instruct staff to forward a copy of this report and the related Council resolution to the Ministry of Transportation and the Environmental Assessment Office.

INTENT

To recommend to Council a location of a future interchange on Highway No. 1 in the vicinity of 192 Street so that staff can provide direction in that regard to the MoT (Gateway Project Team).

BACKGROUND

With the pending widening of Highway No. 1 under the Gateway Program, all interchanges along Highway No. 1 in Surrey will need to be replaced to span the wider highway and address seismic concerns with the current bridge structures. Currently, the Highway No. 1 widening project is in the public comment phase of the federal and

provincial environmental permit process. A separate corporate report is being forwarded to Council with respect to recommended City input to the environmental permit process. The applicant (MoT), on behalf of the Gateway program, has asked that the City make any requests for changes to planned interchanges prior to the end of the public comment phase. In the environmental permit application, the easterly Surrey interchange on Highway No. 1 is proposed at the existing Harvie Road alignment and has two additional ramps connecting to Highway No. 1 for trucks only. A summary of the proposed upgrade to the existing Harvie Road alignment that was contained in the environmental permit and in a previous Corporate Report to Council is contained in Appendix I.

As outlined in the Corporate Report presented to Council on July 23, 2007, upgrading the interchange on the existing alignment at Harvie Road may not be the option that best serves the City's future traffic requirements. The Harvie Road alignment may limit opportunities for future development of Harvie Road as a heritage area, and will continue to create operational and safety problems at the various skewed intersections with Harvie Road and the grid road network. This configuration is illustrated in Appendix II.

At the Council meeting on July 23, 2007, Council accepted the recommendation of staff to support, in principle, a different highway interchange location from the location proposed in the environmental permit application, namely, a shift to the east to locate the interchange and related grade separation on the 192 Street alignment subject to public consultation. The proposed 192 Street configuration is illustrated in Appendix III.

DISCUSSION

Open House

On September 12, 2007, the Engineering Department hosted a public Open House to present the two interchange location options to the public and to obtain feedback. One option was identical to the Harvie Road option that Gateway included in their environmental permit, which included access ramps to/from Port Kells. The second option was a partial interchange on the 192 Street alignment.

As 192 Street south of 88 Avenue is already designated a 4-lane arterial road, the area primarily affected by an interchange at 192 Street/Highway 1 is north of 88 Avenue. Therefore, invitation letters to the Open House were only sent to properties bounded by 88 Avenue, 96 Avenue, 188 Street, and 194 Street (360 letters). The Open House was also advertised in the local newspaper.

The following are some quick facts about the Open House:

- 360 invitation letters were sent;
- 109 people attended and signed in;
- 94 questionnaire responses were submitted, representing 79 properties;
- There were only two responses from north of Highway 1 - both being from businesses;
- 12 responses were from the 20 properties on 192 Street north of 88 Avenue and south of Highway No. 1;

- 8 responses were from the 26 properties on Harvie Road north of 88 Avenue and south of Highway No. 1;
- Preference for one option or perhaps dislike of the other option was based mainly upon where the respondent resided: residents on 192 Street both north and south of 88 Avenue preferred the Harvie Road option and residents on Harvie Road preferred the 192 Street option;
- The issue stirred strong emotions but no clear preference for either option was given by the public: 43% preferred the Harvie Road alignment while 49% preferred the 192 Street alignment with 8% of respondents not indicating a preference;
- Residents of 192 Street, in particular, expressed a resentment of motorists from outside the neighbourhood, particularly from Clayton and Langley, who would use the streets in the area to access Highway No. 1 or Port Kells;
- Considering both options, respondents had a slight preference (48% in favour, 35% against) that access to Highway 1 should be provided to the north and south; and
- The residents of 192 Street north of 88 Avenue indicated a desire for full property buyouts, or an opportunity to immediately redevelop their properties in order to reduce the impact of the increased traffic that would result from the interchange.

The process also resulted in the receipt of information regarding a heritage-sensitive property at 9129 - 192 Street that was not previously listed on the City's heritage database. Preserving this site can be accommodated with either of the options.

The Port Kells Community Association submitted a letter stating that they did not want an interchange at either location. Their letter is attached in Appendix IV.

Traffic Patterns

The easterly part of the Port Kells area south of Highway 1 (surrounding 192 Street and Harvie Road) has experienced major changes in traffic patterns in the past three years, as a result of the construction of the west-facing ramps on Highway No. 1 at Harvie Road in 2006, the opening of the 200 Street interchange (including a new signal at 88 Avenue and 200 Street) and rapid growth in the East Clayton neighbourhood. Another indirect impact on the traffic patterns in the area is the turn restrictions at the intersection of Fraser Highway and Harvie Road.

Although the eastbound off-ramp from Highway No. 1 at Harvie Road/192 Street was intended to serve only the users of the Port Kells industrial area, residents report a high percentage of people using the eastbound off-ramp to go south on Harvie Road. With the signalization of the intersection of 88 Avenue and 200 Street, many vehicles destined for Port Kells are accessing the Port Kells area by making a left turn onto 88 Avenue and then accessing Port Kells by driving up 192 Street, turning left onto 90 Avenue, and then right to access the overpass. This circuitous route using the local road network allows motorists to avoid traffic queues at the 4-way stop intersection of 88 Avenue and Harvie Road. Residents of the South Port Kells area are also reporting an increased use of Harvie Road by residents of Clayton, who are using 192 Street and Harvie Road to access the Port Kells Industrial area and Highway No. 1.

Although the South Port Kells area redevelopment plans are on hold until the Ministry of Transportation and the City reach agreement regarding access to the area off Highway

No. 1, Highway No. 15 and the east/west connector Highway on the 96 Avenue alignment, the draft transportation concept plan for South Port Kells suggested that the future redevelopment in the area would be best served by an interchange on Highway No. 1 at the 192 Street alignment in comparison to the Harvie Road alignment.

Evaluation of Options:

192 Street Interchange location:

- 192 Street is an arterial route with direct connections (ultimately) to the Clayton area and the Fraser Highway;
- The new overpass/interchange can be built with little or no impact to the existing half interchange at Harvie Road, which will facilitate ease of construction;
- It is a safer alignment as it avoids the skewed intersections and spacing issues related to intersections of east/west streets along Harvie Road, particularly south of Highway No. 1;
- It minimizes impact to the heritage properties/area of Harvie Road at 88 Avenue in the Port Kells village area;
- It has slightly less environmentally sensitive areas/creeks in proximity to the alignment.

Harvie Road (Existing) Interchange location:

- The local residents along Harvie Road are already accustomed to high levels of traffic on Harvie Road;
- Most of the required Right-of-way for the new interchange is already in place; and
- It may be a less costly option.

Future Road Network considerations South of Highway No. 1

Appendix V illustrates how the interchange at 192 Street could be configured to address the current and future road network considering the following challenges of the South Port Kells General Land Use Plan. The draft transportation concept plan that was prepared for servicing the redeveloped South Port Kells area included a service road to access the Anniedale triangle (i.e., that area bounded by Highway No. 1, Highway No. 15 (176 Street) and 92 Avenue) and an overpass of Highway 15 at the 92 Avenue alignment, which will join the Anniedale Community to the east of Highway No. 15 with the Tynehead community to the west. With an interchange at 192 Street (instead of Harvie Road) and no ramp in the southwest corner of the interchange, a future service road serving the Anniedale triangle can be connected with 192 Street, providing a high level of service to the triangle lands, which are intended to be developed as a business area. Under this scenario, 92 Avenue can either tie into the service road or can intersect with Harvie Road. These links and the other local road links would be constructed once the redevelopment of South Port Kells occurs. Future network links are more difficult to establish if access to Highway 1 is provided on the existing Harvie Road alignment. The Harvie Road interchange location will result in the continued use of 90 Avenue between 192 Street and Harvie Road as a shortcut route to Highway No. 1 for those drivers that are originating from or destined to 192 Street south of 88 Avenue.

CONCLUSION

The public consultation process did not provide any clear preference in relation to the optional interchange locations on Highway No. 1. However, based on longer term land development and transportation considerations, the Engineering Department recommends:

- That the City endorse the interchange location on the 192 Street alignment because:
 - it provides a direct connection to the Clayton area and Fraser Highway;
 - minimizes impacts to the heritage properties / area of Harvie Road at 88 Avenue in the village of Port Kells;
 - it is a safer alignment as it minimizes the traffic volumes at the skewed intersections along Harvie Road; and
 - it can be constructed while maintaining the operation of the existing half interchange at Harvie Road, thereby minimizing construction disruption to motorists; and

- That the City endorse the development of a “full movement” interchange at this location as this will best serve the demands for highway access for the emerging and future neighbourhoods in Surrey;
- That the City request that the design of the interchange minimize impacts on the adjacent land uses, provide for future redevelopment of the South Port Kells area to urban densities and uses in accordance with the South Port Kells General Land Use Plan and facilitate access connections as identified in Appendix V; and
- That Council direct staff to forward a copy of this report and the related Council resolution to the MoT as the City’s input related to the easterly interchange location within Surrey on Highway No. 1.

Should Council approve the recommendations, it is proposed that staff would work with the residents along 192 Street to review ways to mitigate the impacts of this road being connected to the new interchange location.

Paul Ham, P. Eng.
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PH/JB/VL/AMC/mpr:kd2/ar/brb

Attachment: Appendix I – Corporate Report R179
Appendix II – Harvie Road Interchange Location
Appendix III – 192 Street Interchange Location
Appendix IV – Port Kells Community Association Letter
Appendix V – Overall Long Term Road Network with the 192 Street Interchange