



Corporate NO: C414

Report COUNCIL DATE: Mar. 22, 1999

COUNCIL-IN-COMMITTEE

TO: Mayor & Council **DATE: March 15, 1999**

FROM: Manager, Utilities & Construction **FILE: 2350-003/04**
Engineering Department

SUBJECT: East Newton Business Park Neighbourhood Concept Plan Servicing Report

RECOMMENDATION

That Council approve the engineering servicing and financial strategies as outlined in this report and as specified in the East Newton Business Park Neighbourhood Concept Plan Engineering Report as the means of managing engineering services for this Industrial Area.

INTENT

The purpose of this report is to provide Council with an overview of the engineering servicing and financial strategies for the East Newton Business Park Neighbourhood Concept Plan (NCP).

BACKGROUND

A separate report prepared by the Planning & Development Department outlines the preferred land use for the East Newton Business Park NCP. This plan was used as the basis for the Engineering Study. Servicing impacts and the associated financial issues were identified and analyzed. The details of the engineering analysis are contained in a separate report available in the Engineering Department.

The engineering services discussed in the report relate only to major infrastructure. Localized site servicing requirements of individual developments are not analyzed in the report, as responsibility for their construction rests with the developers.

DISCUSSION

Sanitary Sewer

The NCP area is below the GVRD Trunk Sewer and, therefore, must rely on a pump station to service the

area. This pump station also services a portion of the East Newton (South) residential NCP.

Water

There are no major infrastructure requirements with respect to water. The site is adequately serviced with off-site improvements and only the local distribution mains are required.

Transportation

A transportation study was completed as part of the engineering report. Arterial and collector roads were reviewed and where necessary upgrades or additional elements have been identified. The details of the necessary works are included in the report. Given the limited access to arterial roads from the site, there is a limitation on the floor area ratio that can be used in this business park. Another significant issue is the signalization on 152 Street required to meet the demand of this area over the ambient traffic volumes.

Stormwater

A comprehensive stormwater study was included as part of the engineering study. The boundaries of the study area went beyond the NCP to address the whole stormwater catchment. The details of the finding are included in the engineering report.

To service the NCP area, a pump station is required on the Bear Creek dyke as well as some improvements to the conveyance system upstream of the pump station. These improvements also benefit the East Newton (South) residential NCP. The pump station is also required as a component of the City's lowland drainage project.

A bio-filtration pond is recommended to manage stormwater run-off quality for the East Newton Business Park in lieu of individual on-site oil and grit interceptors. This offers some economies of scale and is an innovative way of mitigating the environmental effects of storm water run-off.

The Ministry of Environment and Department of Fisheries have reviewed the NCP. The proposed stormwater management plan has received general support from these agencies. A more detailed review of the environmental issues is included in the report prepared by Planning & Development.

Development Phasing

While the NCP can proceed as one phase, the engineering report lays out four logical phases based on the sequence of servicing. Since the drainage and sanitary pump stations are required at the outset and are located in the north-east corner of the site, phasing is most cost effective if the area develops from north to south.

The details of the phasing plan are included in the engineering study. In accordance with Council practice for development in NCP areas, development cannot take place until the land required for the pump stations and bio-filtration facility are either acquired or secured by developers.

Financing

A comprehensive financial analysis is included in the NCP engineering report. The details of all the necessary

DCC infrastructure have been identified and the costs are included. The current 10 Year Capital Plan need only be amended to add the new signals at 152 Street and 66A Avenue. Since this is included in the Arterial Roadway DCC's, it does not affect the viability of the Business Park.

The following table summarizes the projected DCC revenues and construction costs for each engineering service. The revenues are based on the current DCC by-law.

Projected DCC Revenues and Expenditures at Build-out (1)

	Projected DCC Expenditures	Projected DCC Revenues	Surplus Balance (Deficit Balance)
Sanitary Sewer (\$2,680/ac)	\$747,500	\$190,122	(\$557,378)
Storm Sewer (\$20,160/ac)	\$647,590	\$1,425,360	\$777,770
Water (\$2,870/ac)	\$0	\$203,592	\$203,592
Major Collector Road (\$3,280/ac)	\$0	\$234,382	\$234,382

(1) Note: It is recognized that the City of Surrey collects DCC's on a community basis, not on a NCP or areas basis. This table is presented only to show the financial impact of the NCP on the current 10 Year Plan.

The table also shows the magnitude of additional works or refined construction costs required to service the NCP area as compared to the 1997, 10 Year Servicing Plan.

The above table demonstrates that there is a shortfall of DCC revenue (\$557,378) from the NCP area to pay for the sewage lift station. However, this sewer lift station also serves the East Newton NCP. When the total servicing costs and DCC revenues are looked at on a combined basis (i.e., East Newton NCP, plus East Newton Business Park NCP) there is sufficient DCC revenues to fund the trunk sewer elements required, including the lift station.

A levy of approximately \$13,000 per acre is required for the bio-filtration facility. Since this eliminates the need for individual on-site oil and grit interceptors, there is a benefit in economy of scale since the facility is less expensive than the sum of the individual interceptors. There are a number of mechanisms available to the front-ender to recover the cost of this facility.

For development to proceed, the first developer, in either the upland residential NCP or the Business Park, would be expected to construct the sanitary and stormwater works. Mechanisms such as traditional latecomer agreements and the more recently used development works agreement are available for initial development proponents to recover these costs from subsequent development.

Owing to the significant cost, it is unlikely that development will proceed until the sanitary pump station and drainage works are constructed by the City in accordance with our 10 Year Capital Plan. This is anticipated to be complete in 2004. Council may wish to consider front-ending the business park's portion of the costs, with an appropriate cost recovery mechanism, as part of the City's Industrial Pre-servicing strategy. With this catalyst and contribution for the residential upland benefiting properties, development could proceed as early as 2000, should there be any active interest in the area. A report on pre-servicing industrial land will be submitted to Council in the near future.

CONCLUSION

The East Newton Business Park Neighbourhood Concept Plan Engineering Report provides the comprehensive servicing, phasing, and financial plan for the area. The report provides funding strategies such that the major servicing costs are not borne by the existing tax payers. The engineering plan has been presented to the public and received general support.

Paul Ham, P. Eng.

Manager, Utilities & Construction

MD/km

Attachment: Appendix I (bound separately, and available in the Engineering Department) East Newton Business Park Neighbourhood Concept Plan Report — Aplin & Martin Consultants Ltd.

c.c. - General Manager, Planning & Development

- General Manager, Finance & Technology

- General Manager, Engineering

g:\1999\utilities\sewer\03120930.md

U 03/15/99 10:11 AM