



To: Public Works and Transportation Committee
From: Siu Tse, P.Eng.
 Manager, Engineering Planning
Re: **Drainage at 10591 Blundell Road**

Date: October 10, 2003
File: 6060-01

Staff Recommendation:

That the "Drainage at 10591 Blundell Road" report dated October 10, 2003 from the Manager of Engineering Planning be received for information.

Siu Tse, M.Eng., P.Eng.
 Manager, Engineering Planning
 (Local 4075)

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ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Transportation	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Parks, Design and Construction	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Law	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Operations	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

Staff Report

Origin

Complaints of poor drainage at 10591 Blundell Road were received from the Koop family, through their letter to Council dated July 21, 2003. At the Regular Council Meeting for Public Hearings on July 21, 2003, Council directed staff to investigate the property drainage issues.

Analysis

In their letter to council, the Koop Family identifies the following drainage concerns:

- a) The pipe that replaced the ditch fronting 10591 Blundell Road is too small to carry major flow.
- b) The fronting pipe has sunk to a level “not good enough” for drainage.
- c) Farmed lots with accelerated peat decomposition are sinking relative to City lots and roads, which is causing increased flooding on the farmed lots.

The property at 10591 Blundell Road was inspected and Mr. Rob Koop was met on-site on July 24, 2003. Mr. Koop advised that his house had been settling over several years and drainage is increasingly problematic. He also advised that he farms several properties directly north of 10591 Blundell Road and has difficulty draining these due to low elevations and flat grades. Mr. Koop advised that he felt the city drainage system fronting his property was performing at a lower capacity than it had in the past.

The property has eight drainage connections to the fronting city storm main, as identified on the city's GIS (see figure 1). There is also an undeveloped right of way immediately east of the property that is serviced with a 375 mm main stub draining a small section of ditch. Mr. Koop drains a significant portion of his property to this ditch.

To confirm the operation and condition of the fronting drainage mains, video inspection was completed during the week of July 28, 2003. The video showed the mains to be in generally good condition, however some debris build-up was evident. This debris would impact the capacity of the system and could be contributing to the problems identified by Mr. Koop. Subsequent to this inspection, an operations crew visited the site and the fronting mains were flushed.

The mains fronting the site were surveyed in 2001. This survey shows that the mains have settled approximately 0.3 m on average since their construction in 1977. Although this settlement causes less scour and increases maintenance requirements, there is no decrease in the system capacity. The mains are also correctly sized based on the city's design specifications.

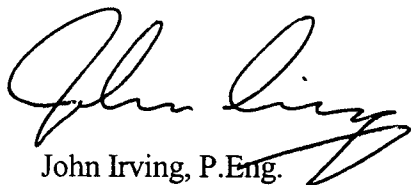
It is most likely that any increase in drainage problems or flooding frequency on the property is due to the property settling relative to the road and drainage system.

Financial Impact

There are no financial impacts at this time.

Conclusion

Flushing of the main line fronting the property should keep the system clear of debris and working at design capacity. Drainage problems on the property are likely due to settlement of the property relative to the road and drainage system.



John Irving, P.Eng.
Project Engineer
(Local 4140)

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Figure 1. 10591 Blundell Road

