

2

YORK-PEEL WATER SUPPLY PROJECT UPDATE PROJECT 77300

The Transportation and Works Committee recommends:

- 1. The recommendation contained in the following report, June 2, 2005, from the Commissioner of Transportation and Works be adopted; and**
- 2. Staff be requested to provide a report to the June 23, 2005 Regional Council meeting regarding the redundant piece of watermain on Rutherford Road, east of Highway 27 to be conveyed to the City of Vaughan.**

1. RECOMMENDATION

It is recommended that:

1. The Regional Clerk forward copies of this report to the Clerks of the City of Vaughan, and the Towns of Markham, Richmond Hill, Aurora, and Newmarket.

2. PURPOSE

The purpose of this report is to update Committee and Regional Council on the progress achieved to date as well as forecast activities over the next few weeks on the York-Peel Water Partnership (YPWP) project.

3. BACKGROUND

3.1 York-Peel Water Partnership (YPWP) Project

The primary objective of the YPWP project is to design, construct, and put into service a major east-west supply system to convey up to 388 ML/d (85 MIGD) of treated water from The Regional Municipality of Peel to York Region's Maple Reservoir. The project consists of 30 km of large-diameter feeder mains through the Cities of Brampton and Vaughan, as well as a new reservoir and pumping station facility located in Brampton. The project is a major component of the Region's preferred strategy for long-term water supply, and is being implemented in co-operation with The Regional Municipality of Peel.

The project was initiated in March 2002 with the Class Environmental Assessment for the York-Peel Feeder main. In June 2002, the process consultant to oversee the design-build contract was selected. In June 2003, the design-build contract was awarded

following a competitive proposal process. Based on this, and the current project schedule, the entire project will be completed in about three years.

The various contract packages constituting the YPWP project are shown in the key plan provided (*see Attachment 1*).

3.2 York and Peel Contracts

A single design-build contract, valued at about \$72 million, encompasses all works to be constructed as part of the YPWP within the boundaries of York Region. The primary component of the project is an 1800 mm diameter feedermain that begins at the east side of Highway 50 (Peel-York Boundary), extends eastward along Rutherford Road to connect with the previously constructed feedermain segment, and then continues northward from Rutherford Road along Weston Road to the proposed Block 33 residential subdivision north of Major Mackenzie Drive. After traversing the subdivision lands, the feedermain will be extended eastward across Highway 400 along Teston Road and will ultimately connect to the existing Maple Reservoir in the City of Vaughan.

York Region has assumed primary management responsibility for the above-noted works, while The Region of Peel has retained primary management responsibility for project components within its geographical boundaries.

On June 26, 2003, York Region Council authorized the award of design-build Contract P-03-04 in the amount of \$72,310,643.87 including GST for feedermain installation and road reconstruction to Dufferin Construction.

The Peel portion of the work, which has been sub-divided into several design-build and conventional contracts, includes a 2100 mm diameter feedermain that begins at the existing Beckett-Sproule Reservoir, Brampton, and runs northward and eastward to the intersection of West Drive and Queen Street, extends eastward along Queen Street to Airport Road, and then continues northward to enter an easement along the Canadian National Railway (CNR), below Castlemore Road, terminating at a new 35 ML reservoir and associated pumping station (the "Airport Road Reservoir and Pumping Station" -- ARRPS). An outgoing 1800 mm feedermain has been installed along the future Humber West Parkway; installation is continuing eastward along Castlemore Road, in order to connect the ARRPS with the York feedermain at the York-Peel Regional boundary.

On July 10, 2003, Peel's Regional Council authorized the award of design-build Contract #2004-109P for the Airport Road/Castlemore Road feedermain to Dufferin Construction.

4. ANALYSIS AND OPTIONS

4.1 Progress Summary

Since the last report to Council, the project team has focussed on the following activities:

- planning for the end-to-end commissioning of the York-Peel Water System
- conducting regular construction meetings with the design-builder:
- administering construction of the following:
 - Feedermain installation on Rutherford Road.
 - Installation of dual feeder mains (1800 mm diameter and PD7) along Teston Road.
 - Modifications to Maple Reservoir to facilitate 1800 mm connection.
 - Construction of Elder Mills Bridge superstructure plus concrete culverts on Rutherford Road and Teston Road.

Construction of the Airport Road Reservoir and Pumping Station (ARRPS) is complete and the Peel portion of the Pumping Station was commissioned and put on-line in mid-April. Feedermain installation in Peel Region is also complete; disinfection and testing are on-going. Commissioning of the 2100 mm diameter pipeline was completed in conjunction with the commissioning of the Airport Road Reservoir in early April.

4.2 Construction Schedule Overview

Table 1 provides milestone dates for key activities, as set out in the latest updates submitted by the respective design-build contractors.

Table 1
Key Project Milestones

Task	Schedule Date
Construction start on Rutherford Road – CPR to Napa Valley Avenue	September 2003
Start of Elder Mills and Robinson Creek Bridge Reconstruction	December 2003
Construction start on Weston Road – Rutherford Road to Major Mackenzie Drive	September 2003
Construction start on Teston Road – Keele Street to Jane Street.	September 2003
Commence highway and water crossings	February 2004
Commence concrete pressure pipe (CPP) delivery in York and Peel	May 2004
Commence CPP installation along Weston Road	May 2004
Complete CPP installation along Weston Road	September 2004
Commence CPP installation through Block 33	August 2004
Complete CPP installation through Block 33	November 2004
Commence CPP installation along Rutherford Road	November 2004
Complete CPP installation along Rutherford Road	May 2005
Commence CPP installation along Teston Road/Keele Street	December 2004
Complete CPP installation along Teston Road/Keele Street	May 2005

Complete Airport Road Reservoir and Pumping Station (exclusive of final commissioning)	March 2005
Complete Feedermain Work in Peel Region	April 2005
Complete overall water supply system commissioning	June 2005
Construction (inclusive of road works) substantially performed	November 2005

4.3 Forecast Activities from June 1, 2005 through July 31, 2005

The following are upcoming key events scheduled:

- Complete end-to-end system commissioning, inclusive of pressure testing and disinfecting all feeder mains and commissioning the remainder of the Airport Road Reservoir and Pumping Station.
- Continue on-going road work.
- Construct four concrete box culverts on Rutherford and Teston Roads recently approved by TRCA.

Feedermain installation and commissioning within York Region was originally scheduled for completion by the end of October 2004. The required in-service date for the feeder main was subsequently extended to March 31, 2005 in recognition of changes to the scope of the project and the conditions under which some of the work had to be performed. At the time the extension was granted, it was anticipated that the revised completion date might not be achieved and that feeder main commissioning would likely extend into May 2005.

Dufferin's most recent schedule submission, made in late May, showed the Rutherford Road feeder main installations complete by the end of May, while pressure testing of completed feeder main sections was started in April. Completion of the Teston Road feeder mains was forecast for late May, approximately one month later than previously predicted. Overall completion of the feeder main work, inclusive of commissioning, was shown slipping nearly two months, to June 20, 2005.

Actual progress during May did not meet the requirements of the schedule, therefore actual completion is likely to be further delayed, in the absence of a significant recovery effort on the part of the design-builder.

Since the feeder main completion (installation and commissioning) has been delayed beyond March 31, 2005, the Region can expect to incur some additional costs as a result of the delay. These costs will represent additional engineering costs as well as potential financing costs. However, the contract with the design-builder includes provision for retaining liquidated damages, in the amount of \$17,000 per calendar day, which are intended to cover the Region's costs. The assessment of liquidated damages would normally take into account the status of the other related feeder main contracts, include legal and contractual considerations, and consideration of actual costs incurred.

5. FINANCIAL IMPLICATIONS

Construction on all major contracts relating to this project, including those by The Regional Municipality of Peel, are now complete. The various contracts are now in the testing and commissioning phase. York Region's 10 year Capital Plan includes sufficient funds to cover committed engineering, construction, project management, land acquisition, and miscellaneous costs associated with the feedermain and road works.

Financial responsibility for the pipeline works in Peel Region is subject to the terms of the York-Peel Water Supply Agreement. Each municipality is arranging its own funding for ancillary road and other infrastructure work. Some of the additional work has been requested by developers of adjacent properties and will therefore be developer-financed.

6. LOCAL MUNICIPAL IMPACT

The York-Peel Feedermain project is required to accommodate future growth within York Region including the City of Vaughan and to supplement the existing water supply from the City of Toronto.

Construction has proceeded without adverse impacts on local municipalities other than traffic and construction impacts normally associated with large projects of this nature.

7. CONCLUSION

The York-Peel Feedermain installation and road reconstruction project (Contract P-03-04) is nearing completion. Based on the Design Builder's revised schedule completion and commissioning of the feedermain is anticipated in June 2005.

The completion of the Class Environmental Assessment, design and construction of the York Peel Feedermain Project, in roughly three years represents a major accomplishment for York Region.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause is attached to this report.)