



# Engineering Department

Major Capital Project Update  
Presentation to General Committee

April 24, 2006

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# Major Road & Structure Projects

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# Enterprise Drive/Main Street Unionville

<b>Project Enterprise Drive Phase 1 - GO Rail Separation</b>							
	<b>Environmental Assessment</b>	<b>Design</b>	<b>Approvals</b>	<b>Property Acquisition</b>	<b>Construction</b>	<b>Total Project Costs</b>	<b>Key Issues/Actions</b>
previous status (Council Report September 2005)	completed	completed	completed	completed	Underway	\$24.7 million	<ul style="list-style-type: none"> <li>• Cost recoveries</li> <li>• Complete construction prior to YRTP opening date</li> </ul>
Current status	completed	completed	completed	completed	<ul style="list-style-type: none"> <li>• Completed &amp; open to traffic mid-November 2005</li> <li>• In maintenance period</li> </ul>	\$24.7 million	<ul style="list-style-type: none"> <li>• Recovery of funds from Region &amp; MDE</li> <li>• Finalize bridge maintenance agreements with Region &amp; GO</li> </ul>
<b>Project Enterprise Drive Phase 2</b>							
	<b>Environmental Assessment</b>	<b>Design</b>	<b>Approvals</b>	<b>Property Acquisition</b>	<b>Construction</b>	<b>Total Project Costs</b>	<b>Key Issues/Actions</b>
previous status (February 2006)	completed	50% completed balance deferred to 2009	To be applied for when design complete	Deferred	Deferred to 2010/2011	Estimated \$10.6 million	<ul style="list-style-type: none"> <li>• Timing of construction</li> <li>• Property acquisitions</li> </ul>
Current status	completed	50% completed design to be completed 2006/2007	Region of York, MOE and TRCA approvals required	Quan property acquisition negotiations ongoing	Deferred to 2010/2011	Estimated \$10.6 million	<ul style="list-style-type: none"> <li>• Acquisition of Quan property</li> </ul>
<b>Project Main Street Unionville Reconstruction – Hwy 7 to Enterprise Drive</b>							
	<b>Environmental Assessment</b>	<b>Design</b>	<b>Approvals</b>	<b>Property Acquisition</b>	<b>Construction</b>	<b>Total Project Costs</b>	<b>Key Issues/Actions</b>
previous status (date)	completed	Scheduled 2009	To be applied for when design complete	None identified	Deferred to 2010/2011	Estimated \$2.1 million	<ul style="list-style-type: none"> <li>• Construction timing</li> <li>• Funding for streetscape &amp; bridge improvements</li> </ul>
Current status	completed	Design to be completed 2006/2007	Region of York, MOE and TRCA approvals required	None identified	Deferred to 2010/2011	Estimated \$2.1 million	<ul style="list-style-type: none"> <li>• Construction timing</li> <li>• Funding for streetscape &amp; bridge improvements</li> </ul>

# Rodick Road – Phases 1& 2

<b>Project Rodick Road/Highway 407 Overpass</b>							
	<b>Environmental Assessment</b>	<b>Design</b>	<b>Approvals</b>	<b>Property Acquisition</b>	<b>Construction</b>	<b>Total Project Costs</b>	<b>Key Issues/Actions</b>
previous status (Council Report January 23 2006)	completed	completed	completed	<ul style="list-style-type: none"> <li>• ORC property outstanding</li> <li>• Magna expropriation costs to be finalized</li> </ul>	Underway Scheduled completion December 2006	\$12.8 million + delay claim (confidential)	<ul style="list-style-type: none"> <li>• Timing of overpass construction</li> <li>• Resolution of delay claim</li> </ul>
Current status	completed	completed	completed	<ul style="list-style-type: none"> <li>• ORC property outstanding</li> <li>• Magna expropriation costs to be finalized</li> </ul>	<ul style="list-style-type: none"> <li>• Overpass construction underway</li> <li>• Schedule accelerated</li> <li>• completion scheduled October 2006</li> </ul>	\$12.8 million + delay claim (confidential)	<ul style="list-style-type: none"> <li>• Resolution of delay claim</li> </ul>
<b>Project Rodick Road Reconstruction – Miller Ave to 14<sup>th</sup> Avenue</b>							
	<b>Environmental Assessment</b>	<b>Design</b>	<b>Approvals</b>	<b>Property Acquisition</b>	<b>Construction</b>	<b>Total Project Costs</b>	<b>Key Issues/Actions</b>
previous status (not reported)	completed	Completed 2004 Revisions to accommodate Miller development scheduled 2006	To be applied for when design complete	Identified in EA Scheduled 2006	Scheduled 2006	Estimated \$4.0 million	
Current status	completed	Road & servicing revisions to accommodate Miller development ongoing	MOE and TRCA approvals required	<ul style="list-style-type: none"> <li>• 75% complete</li> <li>• balance of acquisitions ongoing</li> </ul>	Scheduled summer/fall 2006	Estimated \$5.5 million	<ul style="list-style-type: none"> <li>• Local services to accommodate Miller development added to contract</li> <li>• Agreement with Miller re front end financing</li> <li>• servicing requirements to be finalized</li> </ul>

# Rodick Road – Phase 3

<b>Project Rodick Road Reconstruction –14<sup>th</sup> Avenue to Esna Park incl. CN Overpass</b>							
	<b>Environmental Assessment</b>	<b>Design</b>	<b>Approvals</b>	<b>Property Acquisition</b>	<b>Construction</b>	<b>Total Project Costs</b>	<b>Key Issues/Actions</b>
previous status (February 2006)	completed	Scheduled 2007	To be applied for when design complete	<ul style="list-style-type: none"> <li>• Major acquisition of Esna Park property completed</li> <li>• Balance scheduled for acquisition in 2007</li> </ul>	Scheduled 2008/2009/2010	Estimated \$5.2	<ul style="list-style-type: none"> <li>• negotiation of CN Rail Crossing Agreement</li> <li>• realignment of Esna Park/Alden Road intersection</li> </ul>
Current status	completed	Scheduled 2007	CN Rail and MOE approvals required	<ul style="list-style-type: none"> <li>• Major acquisition of Esna Park property completed</li> <li>• Balance scheduled for acquisition in 2007</li> </ul>	Scheduled 2008/2009/2010	Estimated \$5.2	<ul style="list-style-type: none"> <li>• negotiation of CN Rail Crossing Agreement</li> <li>• realignment of Esna Park/Alden Road intersection</li> </ul>

# Hwy 404 Grade Separation at Centurian Drive Extension

Project Highway 404 Midblock Crossing (Centurion Drive extension)							
	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status	completed	Scheduled 2006/2007	To be applied for when design complete	Identified in EA Scheduled 2006/2007	Scheduled 2007/2008	Estimated \$15.0 million (EA estimate)	<ul style="list-style-type: none"> <li>Finalization of Beaver Creek crossing details with TRCA</li> <li>Cost sharing with Richmond Hill &amp; Region of York</li> </ul>
Current status	completed	<ul style="list-style-type: none"> <li>Consultant selection underway</li> <li>design to be completed fall 2007</li> </ul>	Preliminary discussions with MTO, TRCA, 407 ETR underway. Final applications when design complete	<ul style="list-style-type: none"> <li>Negotiations underway with Markham property owners</li> <li>Negotiations with Richmond Hill owners pending</li> </ul>	Scheduled 2007/2008/2009	Estimated \$17.4	<ul style="list-style-type: none"> <li>Town of Markham to act as project lead for design &amp; construction</li> <li>Negotiation of cost sharing agreement with Richmond Hill &amp; Region of York</li> <li>Markham property acquisition</li> <li>Timing of Richmond Hill property acquisitions</li> </ul>
Project 404 Ramp Extension – Highway 7 to Centurion Drive extension							
	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status	EA scheduled 2006/2007	Scheduled 2007/2008	To be applied for when design complete	Property acquired from Seneca in 2004	Scheduled 2009	Estimated \$3.1 million	MTO design requirements
Current status	Consultant selection underway	Scheduled 2007/2008	Preliminary discussions with MTO underway. Final applications when design complete	Property acquired from Seneca in 2004	Scheduled 2009	Estimated \$3.1 million	<ul style="list-style-type: none"> <li>MTO design requirements</li> <li>Completion of EA required before December 2007</li> </ul>

# Woodbine Bypass

Project Woodbine Avenue Bypass							
	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status (Council Report April 3 <sup>rd</sup> 2006)	Completed by Region of York	Design consultant selected	To be applied for when design complete	Required from Cathedral Developers	Scheduled start April 2007 completion June 2008	EA estimate \$14.3 million	<ul style="list-style-type: none"> <li>• Credit Agreement with Cathedral Developers Group</li> <li>• Scheduling of Phase 3 design &amp; construction</li> </ul>
Current status	Completed by Region of York	Design underway scheduled completion October 2006	Region of York, MTO, TRCA and MOE approvals required	Property requirements being finalized	Scheduled start April 2007 completion fall 2008	EA estimate \$14.3 million	<ul style="list-style-type: none"> <li>• Funding for Phase 1 &amp; 2</li> <li>• Coordination of servicing &amp; grading designs with surrounding developments</li> <li>• Details of watercourse crossing</li> <li>• Scheduling of Phase 3 design &amp; construction</li> </ul>



# Birchmount Road Extension

Project Birchmount Road Extension – 14 <sup>th</sup> Avenue to Enterprise Drive							
	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status (Council Report January 23 <sup>rd</sup> 2006)	completed	95% complete	Underway approvals from 11 agencies required	Property required from 13 land owners	Scheduled start spring 2007 completion summer 2009	Estimated \$20.8 million	<ul style="list-style-type: none"> <li>• Property acquisition</li> <li>• approvals</li> <li>• Coordination on design &amp; approvals by Remington north of Hwy 407</li> </ul>
Current status	completed	<ul style="list-style-type: none"> <li>• Original design complete</li> <li>• Town to complete design for Birchmount north of Hwy 407</li> </ul>	<ul style="list-style-type: none"> <li>• Approval in principle received from MTO, TRCA &amp; 407 ETR</li> <li>• Negotiations ongoing with all agencies</li> </ul>	<ul style="list-style-type: none"> <li>• Appraisals complete</li> <li>• Offers of Purchase to be presented to majority of owners late April 2006</li> </ul>	Scheduled start spring 2007 completion late 2009	Estimated \$23.5 million Cost of constructing roadway on Remington lands north of Hwy 407 added to contract	<ul style="list-style-type: none"> <li>• Timing of property acquisition, approvals and agreements</li> <li>• Value of ORC lands</li> <li>• Design &amp; construction of Birchmount on Remington lands north of Hwy 407 added to Town contract</li> </ul>

# Major Servicing Projects

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- 5. Woodbine Bypass/404 North Employment Lands Sewer 11

# GO Transit – Hagerman Grade Separation

Project GO Transit - Hagerman Grade Separation – Servicing Relocation							
	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status (Council report January 23rd)	Completed (GO Transit)	<ul style="list-style-type: none"> <li>By GO Transit design/build contractor</li> <li>to be completed in 4 months</li> </ul>	to be determined when preliminary design work complete	to be determined when preliminary design work complete	Scheduled summer 2006 to December 2007	Estimated \$5.0 million	<ul style="list-style-type: none"> <li>Incorporation of Town's preferred designs into contract</li> <li>Negotiation of Town costs with GO design/build contractor</li> <li>Funding of Town services</li> </ul>
Current status	Completed (GO Transit)	<ul style="list-style-type: none"> <li>By GO Transit design/build contractor</li> <li>to be prepared as construction proceeds</li> </ul>	to be determined when preliminary design work complete	to be determined when preliminary design work complete	Completion accelerated to of fall 2007	Estimated \$5.0 million	<ul style="list-style-type: none"> <li>Incorporation of Town's preferred designs into contract</li> <li>Negotiation of Town costs with GO design/build contractor</li> <li>Funding of Town services</li> <li>Staff report in June 2006</li> </ul>

# Highway 7 Trunk Sanitary Sewer

Project Highway 7 Trunk Sanitary Sewer – Village Parkway to YDSS @ Main Street Unionville							
	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status Report to (Council April 2003)	Draft completed	Scheduled summer/fall 2003 pending receipt of developer's front end financing	To be applied for when design complete	To be identified during detailed design	Scheduled spring/summer 2004 pending receipt of developer's front end financing	Estimated \$1.9 million	<ul style="list-style-type: none"> <li>• Receipt of developer's front end financing</li> <li>• Coordination with Region reconstruction of Highway 7</li> <li>• Rouge River crossing</li> </ul>
Current status	Completed June 2003	Scheduled summer/fall 2006 pending approval of consultant RFP	Region of York, MOE, TRCA, CN Rail & GO Transit approvals required	Easements may be required depending on final sewer alignment	Scheduled spring/fall 2007	Estimated \$2.7 million	<ul style="list-style-type: none"> <li>• Coordination with Region's reconstruction of Highway 7</li> <li>• Review of alternate alignments to avoid Rouge River crossing</li> <li>• Negotiations with developers regarding front end financing</li> </ul>

# Highway 7 Stormwater Management Facility

Project Highway 7 Corridor Stormwater Management incl. Sheridan SWM Pond							
	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status (Council report January 25 <sup>th</sup> 2005)	Draft completed	Scheduled summer/fall 2005	Applications to be submitted when design complete	Property required from Sheridan Nurseries and Lonsmount Construction	Fall 2006	Estimated \$4.1 million	<ul style="list-style-type: none"> <li>• Property acquisition</li> <li>• Coordination with Region's reconstruction of Highway 7</li> </ul>
Current status	Completed February 2005	Design work on hold pending receipt of permission to enter Sheridan property	Region of York, MOE & TRCA, approvals required	Negotiations with Sheridan Nurseries & Lonsmount ongoing	<ul style="list-style-type: none"> <li>• Revised scheduled Fall 2007 to Spring 2008</li> <li>• Cannot start until Hwy 7 sanitary sewer available</li> </ul>	Estimated \$6.4 million	<ul style="list-style-type: none"> <li>• Property acquisition</li> <li>• Coordination with Region's reconstruction of Highway 7</li> <li>• Storm outfall</li> <li>• Lonsmount issues</li> </ul>

# 14<sup>th</sup> Avenue Watermain

Project 14 <sup>th</sup> Avenue Trunk Watermain - McCowan Road to Boxwood Ave							
	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status (report to Council January 24 <sup>th</sup> 2006)	Not required	98% complete	Approvals pending	5 property acquisitions required	Start May 2006 completion December 2006	Estimated \$6.4 million	<ul style="list-style-type: none"> <li>• Timing of property acquisition &amp; approvals</li> <li>• Estimate exceed allowance in Development Charge</li> </ul>
Current status	Not required	completed	Approvals received	Property acquisitions completed	Start July 2006 completion January 2007	\$5.9 million (based on tender prices)	<ul style="list-style-type: none"> <li>• Work restrictions within roadway</li> <li>• Traffic control &amp; lane closures</li> <li>• Weekend &amp; night work</li> <li>• DC by-law to include updated cost</li> </ul>

# Woodbine Bypass/404 North Employment Lands Trunk Sewer

Project Woodbine Bypass/404 North Employment Lands Trunk Sanitary Sewer							
	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status (April 3 <sup>rd</sup> 2006)	not required	Design consultant selected	To be applied for when design complete	None required Will be constructed within Bypass ROW	Scheduled start September 2006 completion December 2006	Estimated \$2.6 million	<ul style="list-style-type: none"> <li>• Cost sharing with Employment Lands</li> <li>• Construction timing</li> </ul>
Current status	not required	Design underway scheduled completion August 2006	TRCA and MOE approvals required	None required Will be constructed within Bypass ROW	Scheduled start September 2006 completion December 2006	Estimated \$2.6 million	<ul style="list-style-type: none"> <li>• Extent of dewatering and dewatering impacts</li> <li>• Construction methods</li> </ul>

# Transportation



- 1. Bike Path System
- 2. Travel Demand Management

Pgs



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# Bike Path System

Project	Bicycle Route Study						
	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status (not reported)							
Current status	Not required	<ul style="list-style-type: none"> <li>• Design of Phase 1 complete</li> <li>• Phase 2 completion scheduled fall 2006</li> </ul>	<ul style="list-style-type: none"> <li>• Not required for Phase 1</li> <li>• Region approval required for Phase 2</li> </ul>	Not required	<ul style="list-style-type: none"> <li>• Phase 1 scheduled summer 2006</li> </ul>	\$600,000	<ul style="list-style-type: none"> <li>• Incorporation into Region's Pedestrian &amp; Cycling Master Plan</li> <li>• Cost sharing negotiations</li> </ul>

# Travel Demand Management

Project Travel Demand Management							
	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status (not reported)							
Current status	Not required	<ul style="list-style-type: none"> <li>• Transportation Management Association (TMA) formed in August 2005</li> <li>• Town commuter options program on-going</li> <li>• Elementary School program framework established</li> <li>• Secondary School program framework established</li> <li>• Community based TDM program launch scheduled for Fall of 2006</li> </ul>		Not applicable	Not applicable	\$100,000	<ul style="list-style-type: none"> <li>• Ongoing support for program beyond March 2007</li> <li>• Development of policy framework to support &amp; sustain Markham employee commuter options program</li> <li>• Discussions with York School Board regarding support for TDM programs</li> </ul>

# Environmental



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# Pomona Mills Creek Erosion & Habitat Enhancement Study

Project Pomona Creek Environmental Study							
	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status (not reported)							
Current status	Consultant retained	Not applicable	<ul style="list-style-type: none"> <li>• 1<sup>st</sup> Public Information Meeting scheduled July 2006</li> <li>• 2<sup>nd</sup> PIC scheduled October 2006</li> <li>• EA completed November 2006</li> </ul>	Requirements will be identified as part of EA	Not applicable	EA costs \$104,000	<ul style="list-style-type: none"> <li>• Discussions with YRTP regarding proposed transit maintenance facility proposed for lands adjacent to creek in Langstaff area</li> <li>• Coordination with Langstaff planning &amp; servicing studies</li> </ul>

# Flood Emergency Response Plan

Project: Flood Emergency Response Plan				
	Environmental Assessment	Design	Approvals	Key Issues/Actions
Previous				
Current Status	Consultant retained	<ul style="list-style-type: none"><li>● Draft response plan for Phase (100 year storm event) completed and vetted internally</li><li>● Phase 1 completed – September 2006</li></ul>	<ul style="list-style-type: none"><li>● Update to Committee in June 2006</li></ul>	<ul style="list-style-type: none"><li>● Subsequent study phases in 2006/2007 will review impact of other storm frequencies (5 yr, 10 yr, etc.) and remedial works</li></ul>

# Water Course Erosion Implementation Plan

Project: Water Course Erosion Implementation Plan				
	Environmental Assessment	Design	Approvals	Key Issues/Actions
<b>Previous</b>	Consultant retained	Not Applicable	1 <sup>st</sup> Public Information Meeting scheduled for April 26, 2006	<ul style="list-style-type: none"> <li>● Treatment of erosion sites in private property</li> </ul>
<b>Current Status</b>	Consultant retained	<ul style="list-style-type: none"> <li>● Not Applicable</li> </ul>	<ul style="list-style-type: none"> <li>● 1<sup>st</sup> Public Information Meeting deferred to May 18, 2006</li> <li>● Update to Committee of the Whole on April 25, 2006</li> </ul>	<ul style="list-style-type: none"> <li>● Report back to Committee in the Fall 2006 with guidelines on private property and final implementation plan</li> </ul>