Engineering Department

Major Capital Project Update Presentation to Development Services Committee June 19th, 2007

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Major Road and Structure Projects



1) Project – Enterprise Drive – GO Rail Separation Project Closure

Current Status

Project completed & maintenance period expired

Outstanding Issues

- Cost recoveries from York Region and Markham District Energy
 Finalize maintenance agreements with York Region and GO Transit
- Resolution of GO Transit claims for additional costs. (± \$100,000)

Financial Summary

- Funding approved by Council (\$20,688,000)
- Final project cost ± \$19,249,000

2) Project – Enterprise Drive Phase 2

	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/ Actions
Previous status (Update Report January 22, 2007)	Completed	 Access to Quan property received testing and survey work underway Design to be completed in spring/summer20 07 	Region of York, MOE and TRCA approvals required	Ongoing negotiations for the acquisition of Quan property environmental site assessment of Quan property underway to identify soil remediation costs	Building demolition and site remediation scheduled for 2009 Road construction scheduled for 2010/2011	Construction cost estimated \$10.6 million Property acquisition cost negotiations ongoing	• property acquisition •site remediation costs
Current status	Completed	 testing and survey work on Quan property completed Design to be completed in fall 2007 	Region of York, MOE and TRCA approvals required	negotiations for the acquisition of Quan property to be completed June 2007 environmental site assessment of Quan property completed	Building demolition and site remediation scheduled for 2007/2008 Road construction scheduled for 2009/2010	Construction cost estimated \$10.6 million Property acquisition cost negotiations ongoing	• property acquisition •site remediation costs

3) Project - Main Street Unionville Reconstruction – Hwy 7 to Enterprise Drive

	Environmental Assessment	Design	Approval s	Property Acquisition	Construction	Total Project Costs	Key Issues/ Actions
Previous status (Update Report January 22, 2007)	Completed	Design to be completed spring/summer 2007	Region of York, MOE and TRCA approvals required	None identified	Scheduled for 2010/2011 in conjunction with Enterprise Drive Phase 2	Estimated \$2.1 million including bridge improvements	•Construction timing incl. coordination of Hwy 7 sanitary sewer •Tax rate funding for streetscape and bridge improvements (\$ 1,100,000)
Current Status	Completed	Design to be completed fall 2007	Region of York, MOE and TRCA approvals required	None identified	Scheduled for 2009/2010 in conjunction with Enterprise Drive Phase 2	Estimated \$2.1 million including bridge improvements	•Construction timing incl. coordination of Hwy 7 sanitary sewer •Tax rate funding for streetscape and bridge improvements (\$ 1,100,000)

4) Project - Rodick Road/Hwy 407 Overpass Project Closure

Current Status

- Construction complete & road open to traffic November 2006
- Maintenance period underway expires December 2007

Outstanding Issues

- Commissioning and transfer of ownership of structure to 407/MTO
- Settlement of contractor's delay claim (future confidential report)
- Acquisition of ORC Lands
- Maintenance of roadway and administration of 407 Agreement to be transferred to Operations and Asset Management Departments upon expiration of maintenance period

Financial Summary

- Funding approved by Council ± \$14,500,000
- Anticipated final project cost \$13,500,000

5) Rodick Road Reconstruction - Miller Avenue to 14th Avenue

	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/ Actions
Previous status (Update Report January 22, 2007)	Completed	Completion January 2007	MOE and TRCA approvals required	•75% complete •Balance of acquisition ongoing	Tender January 2007 Construction spring 2007	Estimated \$10 million due to inclusion of local servicing costs and utility relocations	Agreement with Miller re front end financing required Utility relocation costs & schedules Acquisition of property required for construction of SWM facility
Current Status	Completed	•Road & servicing design completed •Design of swm pond pending agreement with Miller re property & funding •Scheduled completion March 2008	MOE and TRCA approvals required	•75% complete •Balance of acquisition ongoing	 Deferred due to property issues and agreement between Miller/Town Tender April 2008 Construction summer/fall 2008 	Estimated \$11.5 million due to inclusion of local servicing costs, utility relocations and swm pond	Agreement with Miller re front end financing required Utility relocation costs & schedules Acquisition of property required for construction of SWM facility

6) Rodick Road – 14th Avenue to Esna Park

	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status (Update Report January 22, 2007)	completed	Scheduled 2007	 To be applied for when design complete CN Rail and MOE approvals required 	 Major acquisition of Esna Park property completed Balance scheduled for acquisition in 2007 	 Building demolition and site remediation 2008 Road and structure construction 2009/2010 	Estimated \$5.2	 negotiation of CN Rail Crossing Agreement realignment of Esna Park/Alden Road intersection
Current status	completed	Scheduled award fall 2007 Completion summer 2008	 To be applied for when design complete CN Rail and MOE approvals required 	 Major acquisition of Esna Park property completed Balance scheduled for acquisition in 2007 	 Building demolition and site remediation fall 2008 Road and structure construction 2009/2010 	Estimated \$5.2	 negotiation of CN Rail Crossing Agreement realignment of Esna Park/Alden Road intersection

7) Hwy 404 Grade Separation at Centurian Drive Extension

	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/ Actions
Previous status (Update Report January 22, 2007	Completed	Recommended consultant identified award of design contract pending receipt of funding from Richmond Hill	Preliminary discussions with MTO, TRCA, 407 ETR. underway Final applications when design complete	 Negotiations underway with Markham property owners Negotiations with Richmond Hill owners pending 	Scheduled 2008/2009	Estimated \$17.4 million	Town of Markham to act as project lead for design & construction Negotiation of tri-party agreement with Richmond Hill & Region of York property acquisition
Current Status	Completed	design on hold pending receipt of funding from Richmond Hill	discussions with MTO, TRCA, 407 ETR. on hold	Negotiations property owners on hold	Deferred to 2009/2010 due to funding by Richmond Hill	Estimated \$17.4 million	Commitment of funding by Richmond Hill tri-party agreement with Richmond Hill and York Region Property acquisition timing & costs

8) 404 Ramp Extension – Highway 7 to Centurion Drive Extension

	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/ Actions
Previous status (Update report January 22, 2007	Recommended consultant identified award scheduled January 2007 EA completion scheduled fall 2007	Scheduled 2008	Preliminary discussions with MTO underway Final applications when design complete	Property Acquired from Seneca in 2004	Scheduled 2009 subject to scheduling of Highway 404 midblock crossing construction	Estimated \$3.1 million	Coordination of design with proposed Seneca soccer Field MTO design requirements Agreement with 407 ETR
Current status	EA underway completion scheduled fall 2007	Scheduled 2008	Preliminary discussions with MTO underway Final applications when design complete	Property Acquired from Seneca in 2004	Deferred to 2011 due to delay of Highway 404 midblock crossing construction	Estimated \$3.1 million	MTO design requirementsAgreement with 407 ETR

9) Woodbine Bypass

Projec	t Woodl	oine Avenue B	ypass Majo	r Mackenzie	Drive to Elgin	Mills	
_	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status (Update Report January 22, 2007)	Completed by Region of York	60% submitted December 15, 2006	Region of York, MTO, TRCA and MOE approvals required Permit to Take Water received from MOE	Property requirements being finalized	Tender scheduled February 2007 Scheduled start April 2007 completion fall 2008	EA estimate for road construction \$14.3 million Additional cost for construction of trunk sanitary sewer and developer's servicing to be determined	 Finalization of Tri Party agreement Coordination of servicing & grading designs with surrounding developments Scheduling of Phase 3 design & construction Dewatering impact on Victoria Square Coordination of servicing & grading designs with surrounding developments
Current status	Completed by Region of York	Phase 3 added Woodbine Ave culvert replacement added Design to be completed in phases	Region of York, MTO, TRCA and MOE approvals required Permit to Take Water received from MOE	Property requirements finalized	Multi phased tender Phase 1a tender scheduled July 2007 completion summer 2008 completion of Bypass scheduled fall 2009	current estimate for road construction \$14.3 million	Finalization of Tri Party agreement Coordination of servicing & grading designs with surrounding developments Receipt of financing from developers and Region ASDC credit agreement

10) Birchmount Road Extension

Project	Birchm	ount Road E	xtension – 1	4 th Avenue t	o Enterprise	Drive	
	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status (Update Report January 22 2006)	completed	90% design submission December 22 2006 phase 1 design complete by January 22 2007	Approvals received from MTO, 407 ETR, TRCA, DFO, Hydro One approvals from all other agencies ongoing CN Rail approval pending resolution of outstanding issues	Acquisition of required properties and negotiations with ORC ongoing	Phase 1 construction Enterprise to CN tender February 2007, start April 2007, completion July 2008 Phase 2 construction CN to 14 th Ave incl. structure construction 2008/2009 pending resolution of CN issues	Total project costs estimated ± \$26 million Phase 1 costs estimated ± \$14 million Phase 2 costs estimated ± \$12 million	Resolution of CN issue regarding bridge construction (see Jan22, 2007 report) Timing of final property acquisition, approvals and agreements required to proceed with construction Ruland/Markham Centre Developer Group financing and agreements
Current status	completed	 phase 1 design complete phase 2 design complete fall 2007 	all phase 1 approvals received CN Rail approval for phase 2 pending resolution of outstanding issues	Acquisition of required phase 1 properties incl. ORC complete Phase 2 properties 90% complete	Phase 1 construction Enterprise to CN underway Phase 2 construction CN to 14 th Ave incl. structure construction 2008/2009 pending resolution of CN issues	Total project costs estimated ± \$26 million Phase 1 tender cost \$9.1 million, total phase 1 costs \$11.7 million excl. property Phase 2 costs estimated ± \$12 million	Resolution of CN issue regarding bridge construction (see Jan22, 2007 report) Value of ORC property

11) Clegg Road Extension

Project	Clegg Road	Extension -	Town Centre	Blvd. to Wa	rden Avenue		
	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
Previous Status (update report January 22 2007)	Completed	Completed	Approvals received from Region and MOE	All required road allowances have been dedicated to the Town by Hotel and Liberty	start January2007CompletionJune 2007	\$3.7 million funded by Liberty	Winter construction required to meet schedule to allow occupancy Schedule and cost control
Current Status	Completed	Completed	Approvals received from Region and MOE	road allowances have been dedicated	Construction underway Completion June 2007	\$3.7 million funded by Liberty	Completion of MDE piping

Major Servicing Projects

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Major Servicing Projects



1. GO Transit – Hagerman Grade Separation

	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status (Update Report January 22 2006)	Completed (GO Transit)	Preparation of designs to Town standards underway by GO Transit design/build contractor	Approval of designs coordinated by GO transit	Acquisition of easements by GO Transit underway	Construction underway Completion scheduled 2008	Estimated \$3.6 million to be updated when designs complete Front end financing to be provided by GO Transit, repayment plan over 5 years finalized	scheduling of final design and approval of Town works Negotiation of Town costs with GO design/build contractor Project schedule Detailed report February 2007
Current status	Completed (GO Transit)	Design of watermain & sanitary sewer works incl. pumping station complete and approved Preparation of designs for stormwater works 60% complete & reviewed completion of approvals summer 2007	External agency approvals coordinated by GO transit	Acquisition of easements by GO Transit underway	Construction underway Completion scheduled 2008	Town costs estimated \$3.6 million to be updated when designs complete Front end financing by GO Transit, repayment plan over 5 years finalized	Negotiation of final Town costs with GO Detailed report when Town cost negotiations underway

2. Highway 7 Trunk Sanitary Sewer

Project	Highway	y 7 Trunk S	Sanitary Sev	wer – Village	Parkway to Y	DSS @ Main	Street Unionville
	Environmental	Design	Approvals	Property	Construction	Total Project	Key Issues/Actions
	Assessment			Acquisition		Costs	
previous status (Update Report January 22 nd 2007)	 Completed June 2003 EA amendment required to address Main Street South alignment 	Consultant retained, design underway Scheduled completion early 2007	Region of York, MOE, TRCA, CN Rail & GO Transit approvals required	Easements may be required depending on final sewer alignment	Scheduled fall 2007 subject to receipt of developer funding	\$3.3 million	 reconstruction of Highway 7 deferred to allow sewer construction to proceed Main Street South alignment selected to avoid Rouge River crossing, Negotiations with developers regarding front end financing
Current status	 Completed June 2003 EA amendment required to address Main Street South alignment to be filed June 2007 	design 60% complete	Region of York, MOE, TRCA, CN Rail & GO Transit approvals required Rail crossing agreement required	Easements required from ORC	Scheduled Spring 2008 subject to receipt of developer funding	Estimated \$4.8 million	 reconstruction of Highway 7 deferred to allow sewer construction to proceed Negotiations with developers regarding front end financing

3. Highway 7 Stormwater Management Facility

Project	Highwa	y 7 Corrido	r Stormwat	er Managem	ent incl. Sher	idan SWM I	Pond
	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status (Update Report January 22nd 2007)	Completed	Design on hold pending acquisition of property	Region of York, M.O.E. and TRCA, approvals required	Negotiations with Sheridan Nurseries ongoing Agreement expected early 2007	Scheduled fall 2007 subject to receipt of developer funding	Estimated \$6.4 million increased costs due to property acquisition	 Environmental considerations on properties to be acquired Coordination with Highway 7 reconstruction Phased construction of pond Resolution of TRCA issues Front end financing by developers
Current Status	Completed	Design underway	Region of York, M.O.E. and TRCA, approvals required	Negotiations with Sheridan Nurseries complete Negotiations with Lonsmount ongoing	Scheduled Spring 2008 subject to receipt of developer funding	Estimated construction cost \$2.1 million , total cost \$6.4illion	Coordination with Highway 7 reconstruction Phased construction of pond Resolution of TRCA issues Front end financing by developers

4. 14th Avenue Watermain

Project	14 th Avenue	Trunk Wate	rmain - Mo	Cowan Road	to Boxwood A	lve	
	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status (Update Report January 22 nd 2007)	Not Required	Completed	Approvals received	Completed	Construction started December 2006 completion scheduled fall 2007	\$5.9 million (based on tender prices)	 Work restrictions within roadway Traffic control & lane closures Weekend & night work Clearance from existing utilities incl. hydro lines Traffic control & lane closures
Current status	Not Required	Completed	Approvals received	Completed	Construction started December 2006 completion scheduled fall 2007	\$5.9 million (based on tender prices)	Work restrictions within roadway Traffic control & lane closures Weekend & night work

5. 404 North Employment Lands Trunk Sewer

	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status (Update Report January 22 nd 2007)	not required	 Design underway scheduled completion January 2007 	 TRCA and MOE approvals required Initial Permit to Take Water received 	None required Will be constructed within Bypass ROW	 Scheduled start April 2007 completion August 2007 	Estimated \$2.6 million	 Extent of dewatering impacts on Victoria Square Construction methods Servicing of adjacent lands
Current status	not required	 Phase 1 Design complete Phase 2 design start summer 2007 completion January 2008 	all permits & approvals received for Phase 1	None required	 Phase 1 Scheduled start June 2007 completion October 2007 Phase 2 construction summer/fall 2008 	Phase 1 estimated \$3.5 million Phase 2 estimated cost \$5.5 million	 dewatering impacts Construction methods Servicing of 404 employment lands

Transportation

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1. Bike Path System

No Proj	ect Bicy	cle Route Study					
	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status (Update Report August 28 th 2006))	Not required	Design of Phase 1 complete Phase 2 completion scheduled fall 2006 Public Open House held June 29 and comments being received from public and stakeholders until Sept. 1, 2006	Not required for Phase 1 Region approval required for Phase 2 Council approval required for Cycling Master Plan fall 2006	Not required	Phase 1 scheduled summer 2006	\$600,000 Est. \$25 million over 15 years	Incorporation into Region's Pedestrian & Cycling Master Plan Cost sharing negotiations implementation plan and financing required Coordination with Region and Town Obtaining contractor to undertake Phase 1 Fall 2006
Current status	Not required	Installation of Spine Network (100 km on- road signed routes and 12 km on road bicycle lanes) complete Cycling Master Plan completion scheduled winter 2007 2007 work program – 9.0 km of multi-use pathway	Council approval required for; Cycling Master Plan and 2007 work program	Not required	Construction of connections and pedestrian crossings to support 9.0 km multi use pathway along south side of Major Mackenzie	\$672,500 plus an additional \$400,000 from "Federal Gas Tax" for 2007	Incorporation into Region's Pedestrian and Cycling Master Plan and Municipal Partnership Program Coordination with Region and Town

2. Travel Demand Management

Project	Travel Dem	and Management					
	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
Previous status (Update report August 28, 2006	Not required	 Transportation Management Association (TMA) formed in August 2005 Town commuter options program on-going Elementary School program framework established Secondary School program framework established Community based TDM program launch scheduled for Fall of	•GO Transit approval required •Council approval required •Under review with CCC	Not Applicable	Not applicable	\$100,000 \$50,000	 Ongoing support for program beyond March 2007 Development of policy framework to support & sustain Markham employee commuter options program Discussions with York School Board regarding support for TDM programs Working with GO Transit to introduce a ride share (carpool) pilot program Community based TDM program to be developed Telework Pilot Project under review
	Not required	 Smart Commute 404-7 Transportation Management Association (TMA) support Town commuter options program on-going Elementary School program framework established Secondary School program framework established Community based TDM program research and development ongoing 				\$100,000 \$30,000 \$20,000 \$10,000	 Program support for 2007 Employer sponsored transit program Active and Safe Routes to school Sustainable Transportation Education Program – S.T.E.P. Program development and pilot project support

Environmental

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1. Pomona Mills Creek Erosion & Habitat Enhancement Study

Project Pomona Creek Environmental Study							
.,	Environmental Assessment	Design	Approvals	Property Acquisition	Constructi on	Total Project Costs	Key Issues/Actions
previous status (Update Report August 28 th 2006)	Consultant retained Substantially complete 1st Public Meeting end of August TBD meeting #2 with Task Force on Sept. 6 to discuss Alts	Not applicable	1st Public Information Meeting scheduled July 2006 2nd PIC scheduled October 2006 EA completed November 2006 • Task Force to review and approve list of Alts. • Council to approve study recommendations (Nov. 2006)	Requirements will be identified as part of EA	Not applicable	EA costs \$104,000	 Discussions with YRTP regarding proposed transit maintenance facility proposed for lands adjacent to creek in Langstaff area Coordination with Langstaff planning & servicing studies Funding sources Toronto Ladies Golf Course – update water status Recreational Trail Master Plan – provide update on Master Plan Glynnwood Pond and storm sewer surcharge issues
Current status	Substantially completed established alternatives Mtg #2 with Task Force was held March 2007 to discuss options Waiting for approval to hold 1st Public Info Centre (PIC) and approve funding 2nd PIC TBF Draft final report January 2008 File Class EA in February 2008	Not applicable	Task Force to review and approve list of Alternatives. Part A presentation Development Services Committee – April 24, 2007 Council approval of study and implementation strategy (December 2007) EA completed January 2008 Recreational Trail Master Plan completed	Requirements will be identified as part of EA	Not applicable	EA costs \$104,000	 Need Council approve to hold 1st PIC Need Council approval for funding Funding from other sources (upstream municipalities, CA's) YRTP have changed their design for the Langstaff and showing no SWM component in the new design Coordinate information with Operations-Waterworks Glynnwood Pond and storm sewer surcharge issues, negotiations with affected parties a Town-wide downspouts disconnection program Implementation Strategy and funding A member from the Pomona Mills Conservationist Group was added to the Task Force

2) Flood Emergency Response Plan

Project	Emergency	y Response Plar)				
	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status (Update Report August 28 th 2006)	Consultant retained	Draft response for Phase 1 (100 year storm event) completed and circulated internally Flood data/ maps for stage 5 provided to fire and emergency Services	• approval for \$85,000 to start Phase 2 required	Not applicable	Not Applicable	 Phase 1 and 2 = \$130,250 Phase 3 to be determined at the end of Phase 2 	 Subsequent Study Phases in 2006/2007 will review impact of other storms and identify remedial works Additional properties falling with Regional flood lines. Coordination and prioritization of capital program to mitigate flood damages (to be determined in Phase 3)
Current status Phase 1 Completed		 Phase 1 completed – Aug. 2006 (stage 5) Phase 2 started in January 2007 (stages 1-4, bridges rehab analysis, TOR for basement flooding work) 	•	Not applicable	Not applicable	 Phase 1 and 2 total \$130,250 Phase 3 to be determined at the end of Phase 2 (Aug. 2007) 	No issues

3) Water Course Erosion Implementation Plan

Project	Water Cou	rse Erosion Im	plementation Plan				
	Environmental Assessment	Design	Approvals	Property Acquisition	Construction	Total Project Costs	Key Issues/Actions
previous status (Update Report April 28 th 2006)	Consultant retained • EA completion fall 2006	Conceptual designs for top 30 sites incl. in EA Consultant to be retained fall 2006 for detailed design of top 6 sites	• TRCA Council approval Fall 2006	To be determined Construction easements may be required To be determined To be determined	6 sites scheduled in 2007	1st Public Information Meeting deferred to May 18, 2006 Update to Committee of the Whole on April 25, 2006 To be finalized	 Report back to Committee in the Fall 2006 with guidelines on private property and final implementation plan Guidelines for work on private property to be developed Update to Council on policies Fall 2006
Current status	Completed Class EA report Council authorized staff to file the report Report was filed in May 2007	Consultant retained for detailed design of top six sites	TRCA, DFO approvals required Easements access required	Construction easement may be required to be identified as part of the detailed design stage	6 sites scheduled in 2007/2008 subject to required approvals being secured and easements	Estimated \$1.9 million construction cost for the top six sites	Easements approvals for construction