

2

ROADS CAPITAL CONSTRUCTION PROGRAM UPDATE

The Transportation Services Committee recommends:

- 1. Receipt of the presentation by Stephen Collins, Manager, Engineering, Roads; and**
- 2. Adoption of the recommendation contained in the following report dated September 21, 2011, from the Commissioner of Transportation Services.**

1. RECOMMENDATION

It is recommended that this report be received for information.

2. PURPOSE

This report provides an update on the status of the 2011 Roads Capital Construction Program.

3. BACKGROUND

The Region continues to invest significant resources in the roads and traffic infrastructure to maximize service to local communities

The 2011 Roads Capital Budget of \$267.8M consists of \$236.3M allocated to road related construction projects such as road widenings, intersection improvements, road resurfacings and bridge rehabilitation and \$31.5M allocated to Roads Operations Capital, including Intelligent Transportation Systems, Forestry, Infrastructure Planning and new Patrol Yard development. Of the \$236.3M budgeted for construction projects, approximately \$24.8M is largely delivered by outside agencies with the Region as a cost-sharing partner.

Regional teams work to balance the thorough planning of all aspects including engineering, permits, property acquisition, utility relocations and funding with the timely delivery of projects to meet stakeholder needs

The approach used for delivery of Roads capital projects is to minimize project costs and risk by carefully planning many details. Projects are often tendered throughout the course of the year because of the number of variables to be coordinated, such as property

acquisition and approvals required from external agencies. Tender calls are scheduled based on the earliest anticipated date for the completion of the design and contract documents. Tenders are released once all required permits and properties are acquired, utilities are relocated, and funding (in the case of cost-sharing/ recovery from others, front-end financing, etc.) is in place. Also, road and bridge projects are coordinated with any water or wastewater capital infrastructure projects, York Region Transit/VIVA and local municipal initiatives to minimize community disruption and maximize construction efficiencies. This report describes the status of projects currently underway and the plans for the remaining portion of 2011.

4. ANALYSIS AND OPTIONS

The 2011 Roads Capital Budget is presented in Table 1.

Table 1
2011 Approved Capital Budget

Purpose	Amount
• Expansion/Growth related road construction (managed by Regional staff)	\$152.9M
• Rehabilitation/Asset Management related road construction	29.2M
• Intersection Improvements	29.4M
Sub-total	\$211.5M *
• Expansion/Growth related road construction (delivered by others)	24.8M
• Road operations capital ITS, new patrol yard purchase, vehicles etc.)	31.5M
Total	\$267.8M

Note: * Subject of this report.

The construction of many roads projects was ongoing in 2010 and will be completed in 2011 or 2012

The following expansion/growth road projects were under construction in 2010 and were carried over and will be completed in fall 2011:

- Woodbine Avenue – Ravenshoe Road to Morton Avenue, Town of Georgina
- Langstaff Road – Highway 50 to Highway 27, City of Vaughan
- 19th Avenue – Yonge Street to Linda Margaret Crescent, Town of Richmond Hill
- Gamble Road – Bathurst Street to Yonge Street, Town of Richmond Hill
- Keele Street at 15th Sideroad Intersection Improvement, Township of King
- Woodbine Avenue By-pass – Major Mackenzie Drive to 19th Avenue, Town of Markham
- Stouffville Road – Highway 404 to McCowan Road, Town of Whitchurch-Stouffville

- Doane Road at Highway 404 Interchange advance grading (completion 2012), Town of East Gwillimbury

There are five recent tenders for construction of major roads projects which have started or will start in 2011

The following road projects have been tendered and construction has started or is scheduled to start in 2011. These projects are as follows:

- 16th Avenue at Reesor Road bridge replacement and intersection improvement, Town of Markham
- Keele Street at McNaughton Road intersection improvement, city of Vaughan
- York/Durham Line - Steeles Avenue to south of 14th Avenue, Town of Markham
- 9th Line - Highway 407 to 16th Avenue Noise Barrier Installation, Town of Markham
- Bathurst Street – Bloomington Road to St. John's Sideroad Noise Barrier Installation, Town of Aurora

Staff are working towards several upcoming 2011/early 2012 construction tenders for road improvements

Several projects are nearing the design completion and are planned to be tendered in 2011 or early 2012, as noted in Table 2.

Table 2
Upcoming 2011-2012 Construction Tenders

Project	Key Issues	Status
Bloomington Road Bathurst Street to Highway 404 Towns of Aurora and Richmond Hill	• Property from Ontario Realty Corporation • TRCA Permits • Construction timing through wetland east of Leslie Street	• Detailed design is 90% complete • All property in place, except for Ontario Realty Corporation and York Catholic School Board (expropriation is not possible)
Donald Cousens Parkway Major Mackenzie Drive to Highway 48 Preloading	• GO Transit approval of the interim drainage design	• Detailed design 95% complete • Awaiting GO Transit approval
Warden Avenue 16 th Avenue to Major Mackenzie Drive Town of Markham	• Permit from MNR under the <i>Endangered Species Act</i>, for impacts to Redside Dace	• Council direction received in June 2011 to limit habitat enhancements to within existing right-of-way

Many rehabilitation/asset management projects will be complete in 2011

In addition to growth/expansion roads projects, many rehabilitation/asset management capital projects have been tendered or will be tendered and constructed in 2011. The rehabilitation/asset management program includes works such as resurfacing and pavement rehabilitation contracts, minor intersection improvements such as installation or modification of traffic signals and/or illumination and bridge/structure repairs.

Some of the key resurfacing and road rehabilitation projects completed or to be completed in 2011 include:

- 18th Sideroad – Dufferin Street to Bathurst Street, Township of King
- Bathurst Street – Centre Street to Highway 407, City of Vaughan
- Bowes Road – Keele Street westerly
- Davis Drive West – Highway 400 to Bathurst Street, Township of King
- Kennedy Road – Bloomington Road to Mt. Albert Road, Town of Whitchurch-Stouffville and Town of East Gwillimbury
- Markham Road – Steeles Avenue to Highway 407
- Wellington Street – Bathurst Street to Yonge Street, Town of Aurora (sewer rehabilitation in fall 2011 with final paving in spring 2012)
- Woodbine Avenue – Steeles Avenue to Highway 407, Town of Markham

York Region Roads benefited from the Federal Infrastructure Stimulus Fund, with eight projects completed by the end of 2010 and two projects completed in 2011

The 2009 Federal budget established a new \$4-billion Infrastructure Stimulus Fund (ISF) that provides funding towards the rehabilitation or construction of provincial, territorial, municipal and community infrastructure projects. York Region's Transportation Services Roads Branch applied for stimulus funding for several Roads capital projects.

The projects completed in 2011, prior to the deadline, were:

- Highway 27 Rehabilitation from Nashville Road to Davis Drive West, City of Vaughan and Township of King
- Gamble Road Widening from Bathurst Street to Yonge Street, Town of Richmond Hill

Regional staff continue to improve service delivery to Regional businesses and ratepayers by reviewing current practices for the design and construction of road expansion/rehabilitation projects

As the needs of local communities, road users and transportation customers evolve and change so does the need for Regional road construction practices and procedures to

change. During 2011, with the significant volume of work underway as part of the base program and augmented by the completion of several ISF projects, many lessons were learned that will be incorporated into planning and construction in future years.

The most notable lesson learned is the impact to traffic of having multiple parallel road corridors under construction concurrently. This in turn highlighted the need for minimizing disruption through planning, communication, design and project programming. This is being practiced in several areas with programming decisions being made in part to minimize disruption to road users.

Planning and design studies are also underway for a number of future projects

Environmental Assessments and preliminary engineering activities are continuing on a number of key corridors in preparation for future work as approved in the 2011 10-Year Roads Capital Program.

Environmental Assessments completed in 2011 include:

- Western Vaughan Arterial Road Improvements Individual Environmental Assessment
- Keele Street - Steeles Avenue to Rutherford Road
- Leslie Street - Wellington Street to Mulock Drive
- Donald Cousens Parkway – 14th Avenue to Morningside Avenue
- Intersection improvements at King/Vaughan Line and Jane Street, Keele Street and Dufferin Street
- 2nd Concession - Green Lane to Queensville Sideroad

Environmental Assessments that are underway in 2011 include:

- Bathurst Street at Davis Drive West Intersection Improvements
- King Road – Highway 27 to Highway 400
- Rutherford Road/Carrville Road – Jane Street to Yonge Street
- Doane Road – Yonge Street to Woodbine Avenue

Several detailed design assignments are underway for construction in 2012 and beyond, some of which include:

- Major Mackenzie Drive – Islington Avenue to Weston Road
- Keele Street – Steeles Avenue to Highway 7
- Leslie Street – Wellington Street to Mulock Drive
- 2nd Concession – Green Lane to Doane Road
- Intersection Improvements at King/Vaughan Line and Jane Street and Keele Street
- Teston Road bridge replacement east of Pine Valley Drive
- Bathurst Street – Green Lane to Yonge Street
- Bathurst Street – Highway 7 to Teston Road/Elgin Mills Road
- Vivian Road – Highway 48 to York/Durham Line

- King Road – Yonge Street to Bond Crescent
- Highway 7 – Town Centre Boulevard to Sciberras Road
- York/Durham Line – south of 14th Avenue to Highway 7
- St. John's Sideroad – Bayview Avenue to Leslie Street
- Bayview Avenue – Elgin Mills Road to Stouffville Road
- 9th Line from Donald Cousens Parkway to Main Street Stouffville
- 9th Line at Stouffville Road Jog Elimination
- 19th Avenue – Linda Margaret Crescent to Bayview Avenue, including new GO Rail grade separation
- Leslie Street – Bethesda Sideroad to Bloomington Road

There are several strategic network studies underway to support the long-term sustainable growth of the Region's transportation network

In response to our rapidly growing and maturing communities, Transportation Services has been leading or is involved in several strategic network studies. The Region is undertaking these studies to support future decisions on investments in transportation infrastructure and to support the continued growth in our local municipalities. These studies include:

- Vaughan Metropolitan Centre Urban Growth Centre
- Mid-York East West Study
- Highway 404 Mid-block Collector Road Crossing Study
- Sustainable Travel Choices Study (on hold pending the outcome of the Town of Markham Master Transportation Servicing Plan)

5. FINANCIAL IMPLICATIONS

There are no financial implications resulting from this report.

6. LOCAL MUNICIPAL IMPACT

Regional staff continue to work closely with staff from the local municipalities to ensure local concerns are addressed through the preparation for York Region's projects. Furthermore, requirements for additional municipal infrastructure are routinely incorporated into Regional construction contracts where practical. The successful timely delivery of key infrastructure is critical to meet the needs of current residents and businesses as well as approved future growth in York Region.

7. CONCLUSION

York Region continues to invest significant resources in very large infrastructure programs. In 2011, construction began or will begin on many complex high profile projects, including a new bridge structure to carry 16th Avenue over the Rouge River, the first ever contracts for the construction of noise barriers in the Towns of Aurora and Markham and Bloomington Road from Bathurst Street to Highway 404, in the Towns of Aurora and Richmond Hill.

In addition, there is significant effort underway on the planning and design for future construction projects. Some of these key projects are 2nd Concession from Green Lane to Doane Road, in the Town of East Gwillimbury, Bathurst Street from Highway 7 to Teston Road/Elgin Mills Road, in the Town of Richmond Hill and City of Vaughan, 9th Line from Donald Cousens Parkway to Main Street Stouffville, in the Towns of Markham and Whitchurch-Stouffville, Major Mackenzie Drive from Islington Avenue to Weston Road, in the City of Vaughan and Leslie Street from Wellington Street to Mullock Drive, in the Towns of Aurora and Newmarket.

For more information on this report, please contact Stephen Collins, Manager Engineering Roads at Ext. 5949.

The Senior Management Group has reviewed this report.



Roads Capital Construction Program Update

Transportation Services Committee

October 5, 2011



Purpose

Status update of 2011 Roads
Capital Construction Program

- Recently completed projects
- Recently tendered and ongoing projects
- Future tenders
- Recent and future public meetings
- Key studies and status update
- Critical detailed design assignments and status



Scope of the 2011 Program

- **\$121.8 Million** - Growth
- **\$40.0 Million** - Rehabilitation
- **\$90.8 Million** - Upcoming work



Recently Completed Projects





Gamble Road

Town of Richmond Hill (Bathurst St. to Yonge St.) - **\$2.0 Million**



19th Avenue

Town of Richmond Hill (Yonge St. to Linda Margaret Cres.) - **\$4.3 Million**





Woodbine Avenue By-Pass

Town of Markham (Major Mackenzie Dr. to South of 19th Ave.) - \$21.0 Million



Intersection Improvements

City of Vaughan (Hwy. 50 at Hwy. 7) - \$7.3 Million (YR's Share – \$3.2M - Phase 1A)





\$11.2 M - Rehabilitation completions in 2011, including:

- Warden Avenue (Major Mackenzie Dr. to 14th Ave.) - **\$1.7 Million** completed in August 2011
- Woodbine Avenue (Steeles Ave. to Hwy. 407) - **\$2.9 Million** completed in August 2011
- Markham Road (Steeles Ave. to Hwy. 407) - **\$1.9 Million** completed in September 2011
- Davis Drive (Hwy. 400 to Bathurst Street) - **\$1.2M** completed in September 2011
- Langstaff Road (Hwy. 7 to Dufferin Street) - **\$500K** completed in August 2011



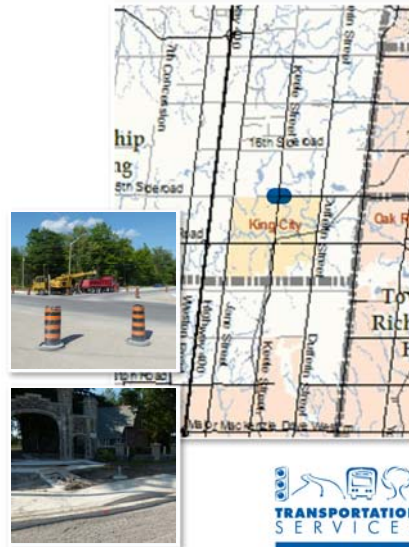
Ongoing & Recently Tendered Projects



Intersection Improvements

Township of King (Keele St. at 15th Sideroad)

- 85% completed
- \$2.2M
- Start of construction – October 2010
- Completion – November 2011



Woodbine Avenue

Town of Georgina (Ravenshoe Road to Morton Avenue)

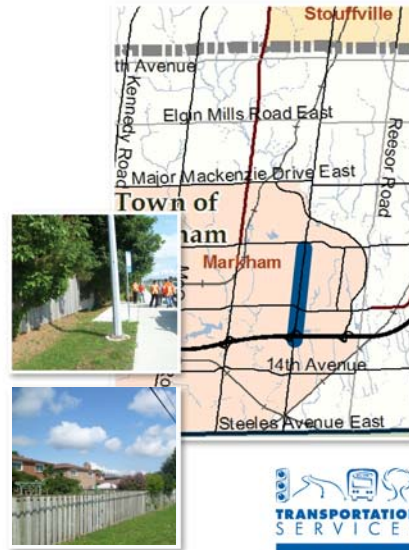
- 85% completed
- \$48.0M including watermain and sanitary sewer
- Roads component - \$21M
- Start of construction - April 2010
- Completion - November 2011



9th Line Noise Mitigation

Town of Markham (Highway 407 to 16th Ave.)

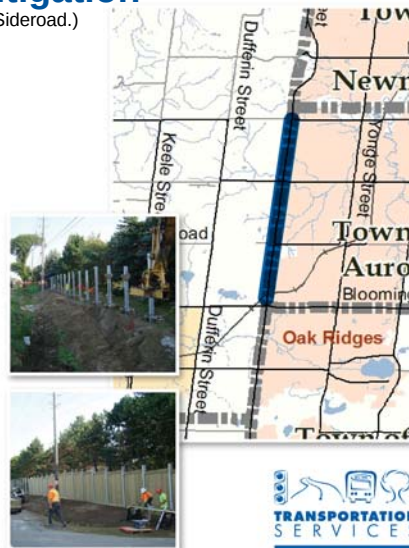
- **\$2.4M**
- 110 homes benefitting
- Start of construction - September 2011
- Completion - May 2012
(incl. planting & restoration)
- **Just Starting**



Bathurst Street Noise Mitigation

Town of Aurora (Bloomington Rd. to St. John's Sideroad.)

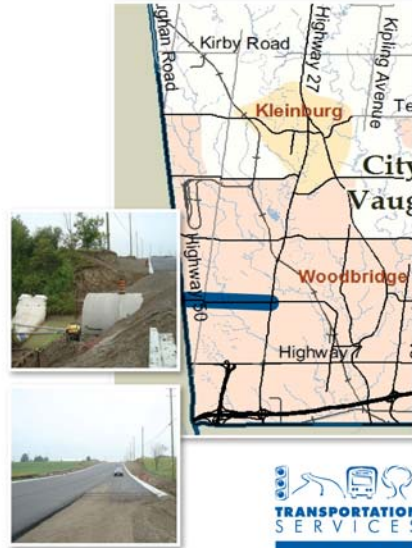
- **\$1.6M**
- 44 homes benefitting
- Start of construction - August 2011
- Completion - May 2012
- **25% completed**



Langstaff Road

City of Vaughan (Highway 50 to Highway 27)

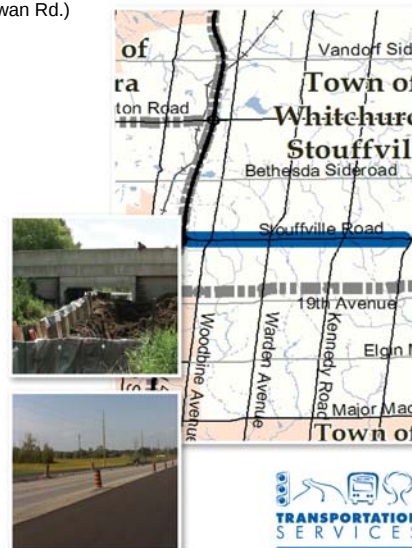
- **\$9.1M**
- Start of construction - November 2010
- Completion - November 2011
- **85% completed**



Stouffville Road

Whitchurch-Stouffville (Highway 404 to McCowan Rd.)

- **\$22.9M**
- Start of construction – November 2010
- Completion - Spring 2013
- **35% completed**



Highway 50 – Phase 1

City of Vaughan (North of Highway 7 to Ebenezer Rd.)

- **\$8.5M** (\$4.25M – YR's share)
- Start of construction - July 2011
- Completion - December 2012
- **10% completed**



Intersection Improvements

City of Vaughan (Keele St. at McNaughton Rd.)

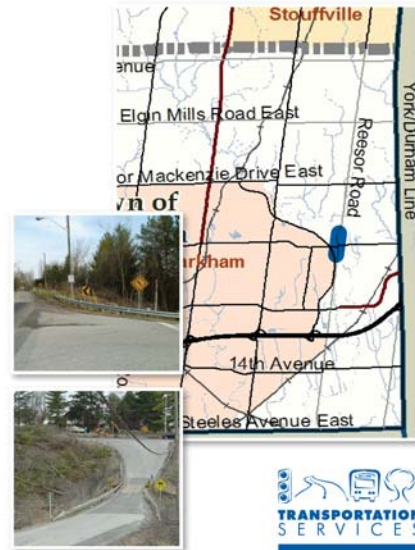
- **\$2M**
- Start of construction - July 2011
- Completion - Spring 2012
- **35% completed**



Intersection Improvements & Bridge Replacement

Town of Markham (16th Ave. to Reesor Rd.)

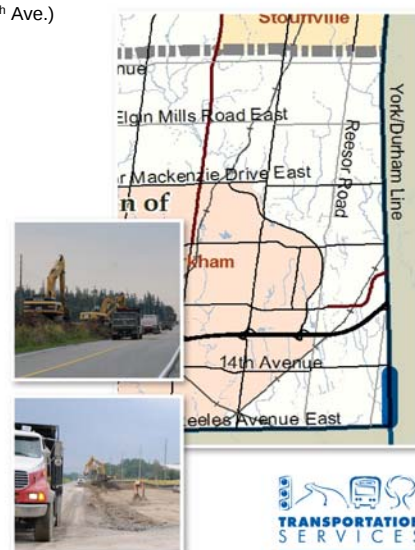
- **\$6.5M**
- Start of construction - September 2011
- Completion - September 2012
- **Just commenced**



York-Durham Line

Town of Markham (Steeles Ave. to South of 14th Ave.)

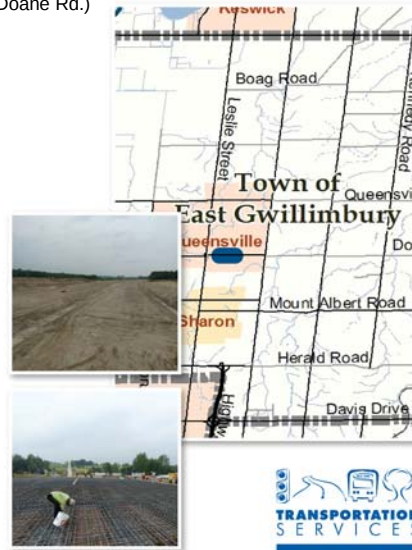
- **\$5M**
- Start of construction - September 2011
- Completion - Spring 2012
- **10% completed**



Advanced Grading Highway 404 Interchange

Town of East Gwillimbury (Highway 404 and Doane Rd.)

- **\$14.4M**
- Start of construction - November 2010
- Completion - November 2011
- **85% completed**



\$7.9M Ongoing Rehabilitation Projects:

- Islington Avenue at Major Mackenzie Drive - **\$150K** - to be completed November 2011
- 18th Sideroad (Dufferin Street to Bathurst Street) - **\$500K** - to be completed in October 2011, weather permitting
- Kennedy Road (Bloomington Road to Mt. Albert Road) - **\$2.9M** - to be completed October 2011
- Rehabilitation of 9 Bus Loops in Markham and Vaughan - **\$1.1M** - to be completed October 31, 2011

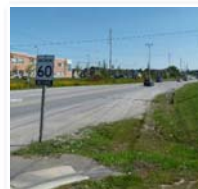
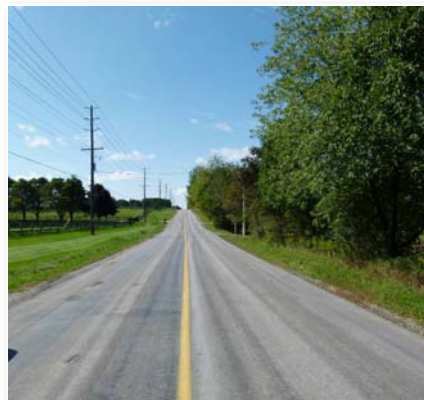


Ongoing Rehabilitation Projects

- King Road (west of Keele Street to Warren Street) - **\$800K** - to be completed in October 2011
- Wellington Street (Bathurst Street to Yonge Street) – **\$2.2M** - to be completed in September 2012
- Miscellaneous Work - Stouffville Road Slope Repairs - **\$275K, 75% Completed** - to be completed in November 2011



Upcoming Tenders



Bloomington Road

Aurora and Richmond Hill (Bathurst St. to Highway 404)

- **\$34.5M** (excludes YR watermain)
- Tendering goal - December 2011
- Start of construction - April 2012
- **Finalizing tender package**



Warden Avenue

Town of Markham (16th Ave. to Major Mackenzie Dr.)

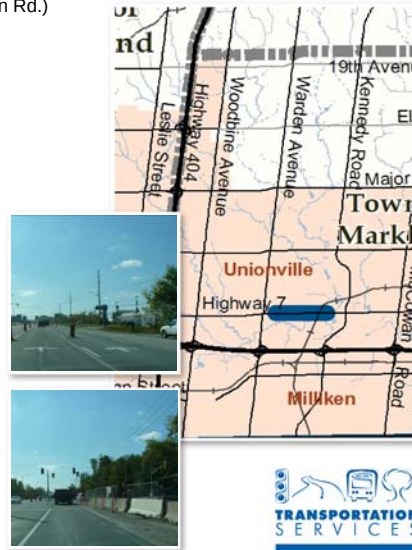
- **\$25.5M** (includes 3 bridges)
- Tendering goal - February 2012
- Start of construction - April 2012
- **Design is 90% completed**



Highway 7

Town of Markham (Verclaire Gate to Scribberran Rd.)

- **\$6.7M** (excludes Y.R. watermain)
- Tendering goal - February 2012
- Start of construction - April 2012
- **Design nearing 60% completion**



Recent & Upcoming PCCs

- **Carrville / Rutherford Road** (Jane St. to Yonge St.)
- PCC No. 2 held on September 22nd and 27th
- **Bathurst Street at Davis Drive**
- PCC No. 1 scheduled for November 2011
- **King Road** (Hwy. 27 to Hwy. 400)
- PCC No.1 scheduled for November 10, 2011
- Nobleton Community Centre (6 p.m. to 9 p.m.)
- **Keele Street at 17/18th Sideroad**
- PCC No. 1 scheduled for early 2012



Key Studies and Status

- **Western Vaughan IEA** - public review period underway, final approval expected in summer 2012
- **Donald Cousens Parkway Extension to Morningside Road IEA**, submitted for MOE review in July 2011
- **Richmond Hill / Langstaff Gateway** - completed in June 2011
- **2nd Concession EA** (Green Lane to Queensville Sideroad) - completed June 1, 2011
- **Leslie Street EA**, Mulock Drive to Wellington Street – completed on September 22, 2011



Key Studies and Status

- **Sustainable Travel Choices** - completion pending outcome of Markham MTSP
- **404 Mid-Block Crossings** - to be completed in December 2011
- **Newmarket Transportation Study** - study commenced in September 2011, completion late 2012
- **Vaughan Metropolitan Centre Study** - (UGC, joint study with City of Vaughan) - study to commence this Fall
- **Highway 7 Feasibility Study** - Islington Avenue to Kipling Avenue, to be completed in early 2012



Key Studies and Status

- **Doane Road EA** - Yonge Street to Woodbine Avenue – to be completed pending further consultation with the Town of East Gwillimbury
- **Keele Street EA** - Highway 7 to Langstaff Road - to be completed in late October 2011
- **Carrville / Rutherford Road EA**, Jane Street to Yonge Street - to be completed Fall 2012



Critical Detailed Design Assignments

- **Leslie Street** - Mulock Drive to Wellington Street
• Design Consultant retained on September 23, 2011
- **Keele Street** - Steeles Avenue to Highway 7
• Design Consultant retained on June 21, 21, 2011
• 30% design submission expected in December 2011
- **Major Mackenzie Drive** - Islington Avenue to Weston Road
• Design Consultant retained on September 23, 2011
- **2nd Concession** - Green Lane to Queensville Sideroad
• Design Consultant retained on September 23, 2011
- **Bathurst Street** - Highway 7 to Teston Road
• Design Consultant retained on June 23, 2011
• 30% design submission is expected in December 2011



Critical Detailed Design Assignments

- **Bathurst Street** – Green Lane to Yonge Street – currently 50% complete
- **9th Line** – Donald Cousens Parkway to Hoover Park Drive – currently 90% complete
- **9th Line at Main Street Stouffville** - Intersection Improvements – currently 75% complete



Summary – Since May 2010:

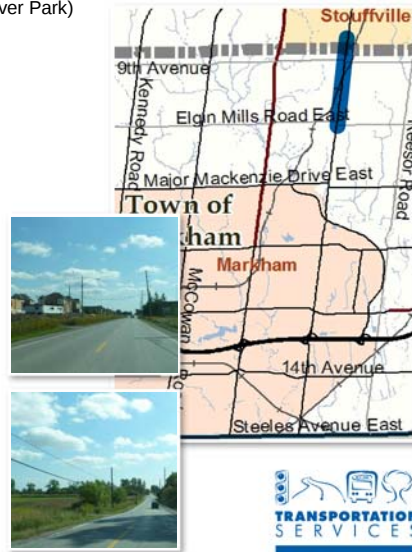
- **Completed 4 Growth Projects - \$30.5M**
- **Completed 23 Rehabilitation Projects - \$40.0M**
- **11 Growth Projects** under construction - **\$95.6M**
- **7 Rehabilitation Projects** under construction: **\$7.9M**
- **3 PCC's** later this fall
- **6 Key Studies Underway**, 1 already completed
- **7 EA's Underway**, 4 already completed
- **8 Critical Design Assignments Underway**



9th Line

Town of Markham (Major Mackenzie Dr. to Hoover Park)

- **\$19.3M** (includes jog eliminations)
- Tendering goal - March 2012
- Start of construction - May 2012
- **Design is 90% completed**



Vivian Road

Whitchurch-Stouffville (Highway 48 to York-Durham Line)

- **\$4.8M**
- Tendering goal - March 2012
- Start of construction - May 2012
- **Design package completed**

