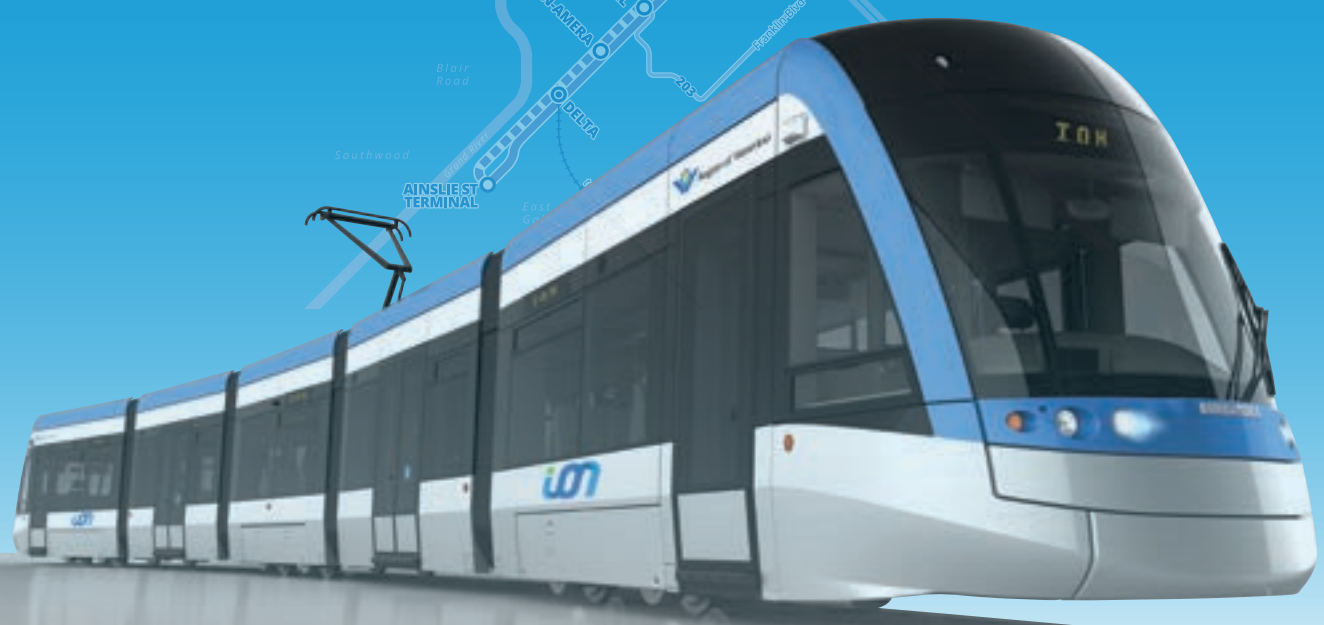




Region of Waterloo

The ION Story



The Region of Waterloo continues to grow. With a current population of 550,000, we are now the fourth largest community in Ontario and the 10th largest in Canada.

Over the next 20 years, growth will continue as we expect 200,000 new residents to move to our community. In fact, the Province recently increased its population projection for Waterloo Region, from 729,000 to 742,000 by 2031 (*Growth Plan for the Greater Golden Horseshoe*). These projections are on track as nearly 10,000 new residents move to the region each year.

Where will these 200,000 new residents live and how will they travel in and around our community? Our traditional pattern of suburban sprawl and single-occupancy car travel is not sustainable as we prepare to add the equivalent of another City of Kitchener to our community. The Region of Waterloo recognizes the need to look at new and improved ways to prepare for the future.

The Region, together with the Province – through its *Places to Grow* legislation – is encouraging development and growth within existing urban areas. By focusing development and investment in the core, Waterloo Region can build up, instead of out: limiting urban sprawl and protecting the environment.

Moving people more efficiently in and around our community, limiting urban sprawl and saving our farmland through the protection and preservation of the environment are three of the fundamental goals of ION.

ION will help local businesses attract new talent to the region, assist with job creation and stimulate new business growth. It will also help with traffic congestion and reduce the need for costly road improvements in some areas.



Why do we need ION?

Limit urban sprawl and protect farmland

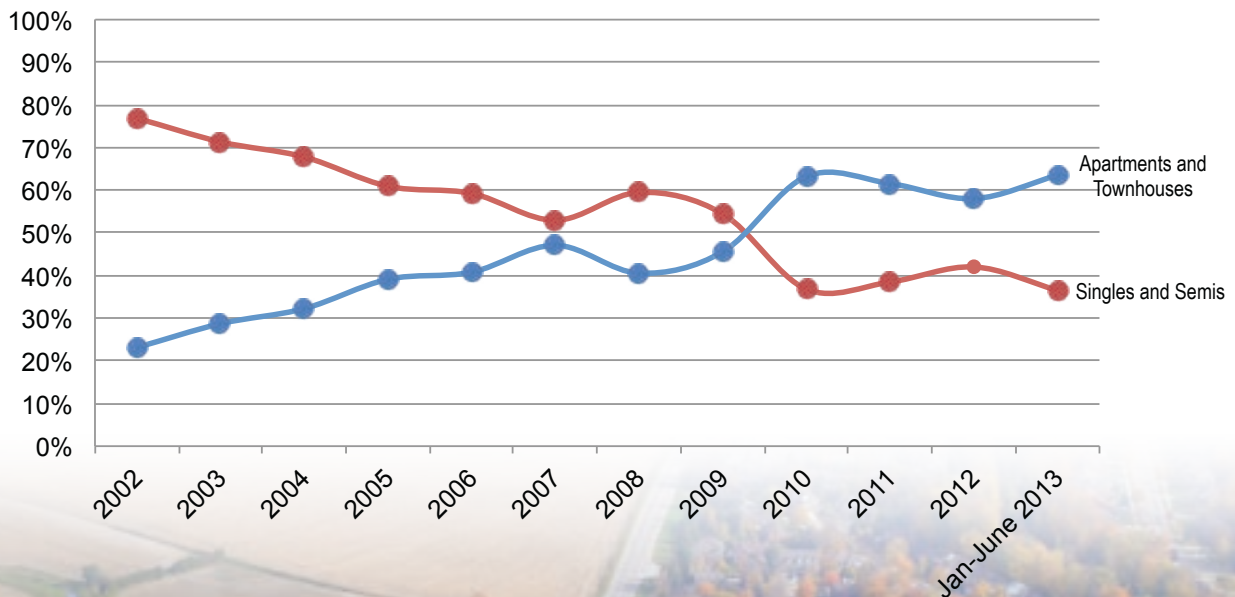
- Some of the best farmland in Ontario lies just outside our urban areas. ION safeguards the region's precious agricultural lands and preserves the community's natural beauty by intensifying development in urban areas and limiting urban sprawl
- Most of the region's water supply comes from the ground. Much of this groundwater is located just outside the western edges of Kitchener and Waterloo. By encouraging growth inward and limiting sprawl, ION will help protect the region's groundwater sources
- ION helps reduce greenhouse gas emissions for better air quality
- ION maintains the unique rural/urban lifestyle we enjoy in our community
- ION is shaping the community for the future by encouraging development in core city centre areas
- The Region is focused on building up, instead of out, which reduces the cost of providing essential services

55% of new residential development currently in the built-up area



15% of new residential development in the built-up area

Shifting Housing Choices in Waterloo Region



Shaping the community

- ION is inspiring new residential and business investments
 - Construction can already be seen along the ION corridor, with new projects continuously being added. For example: 1 Victoria and the Red Condos, which sold out before completion
 - For the first time in the past decade, more apartments and townhomes are being built in Waterloo Region than single family homes.
- The Region's Official Plan aims to balance growth between subdivisions and existing built-up areas
 - This is a major departure from the past where nearly all new growth took place in subdivisions or single-family homes
 - A noticeable new trend has emerged in the region: we have shifted from having approximately 15 per cent development in existing built-up areas in 2003 to having more than 50 per cent development in existing built-up areas in 2011
- ION is encouraging better use of land and efficient use of existing services and infrastructure
 - More compact, intensified development means it's easier and more cost-effective for the Region and the Cities to provide services to residents. For example: water, sewer, waste, emergency services
- ION will foster a strong economy by stimulating development in Waterloo Region
- Project developers openly attribute their project success to being near the ION corridor



Move people

- ION will offer residents a new transportation choice: light rail transit (LRT) in two stages
- Along with Grand River Transit (GRT), ION will create an efficient, integrated, easy-to-use public transit system for all residents in Waterloo Region
 - New iXpress routes will be added for convenient crosstown travel (for example: Maple Grove, Highland/Victoria, Ottawa)
 - Local bus service will be increased along with improved frequency in neighbourhoods
 - There will be one fare for all GRT and ION services
- Current ridership demands ION
 - Transit ridership has more than doubled since GRT was created in 2000. Annual ridership is now at 22 million rides per year and continues to grow
 - Ridership on the iXpress and Route 7 (GRT services that travel between the transit terminals at Conestoga Mall and Fairview Park Mall) is at 20,000 rides per day, which is quickly closing in on the 2017 daily ridership target of 25,000 ION rides per day
- Without ION, the Region would need to build 500 new lane kilometres of roads over the next 20 years to accommodate expected growth
 - These new roads – the equivalent of 25 Hespeler Roads – would cost approximately \$1.4 billion and would need to be built through existing neighbourhoods
 - The impact to roads such as Westmount Road and Courtland Avenue would cause significant social and environmental disruption as well as change the nature and feel of these established neighbourhoods
- Building ION allows the Region to reduce the need for new roads and limit new road construction costs by nearly 40 per cent or \$500 million
- With ION, the Region will ease traffic congestion – now, and in the future – by strategically building roads that efficiently connect a variety of transportation modes, including GRT, walking and cycling
- ION helps the community strike a better balance between daily car and transit use



Yes we do! Here's why:

- Without ION, 500 new lane kilometres of roadways are needed to accommodate growth
 - The cost is approximately \$1.4 billion and Regional taxpayers are responsible for 100 per cent of these costs
- Building ION allows the Region to reduce its new road construction costs by approximately 40 per cent or \$500 million
- Without ION, more dependence will be placed on our roads, increasing the need for costly road expansions and improvements
- Roadway infrastructure costs are funded entirely by the Region
- More than two-thirds of the capital costs to build ION will be paid for by the Ontario (\$300 million) and Canadian (\$265 million) governments
 - The Region will contribute \$253 million to build ION
- Without ION, a significant amount of land will be required by the Region to accommodate expansion and growth, including new roads or road widenings through established neighbourhoods
 - This land would come from established neighbourhoods where communities are already struggling with competing priorities for space
 - It is not certain that these roads could even be built or expanded within our Region. The rise in population would lead to unmanageable gridlock across our community
- Road improvements and expansions do not offer the same level of development opportunities that ION does



Whether you live in one of the townships, one of our downtown areas, or a suburb in Cambridge, Kitchener or Waterloo, ION provides plenty of benefits for you and helps us preserve our unique quality of life.

In suburban areas

- Development along the ION corridor will help limit overall traffic congestion and cut-through traffic in existing neighbourhoods – now, and into the future
- ION will reduce the need to expand roads and limit the amount of infrastructure required to provide Regional and City services such as water, sewer and fire, making it more effective to provide these services to all residents
- Along with GRT, ION will create an efficient, easy-to-use public transit system
 - New iXpress routes will be added for convenient crosstown travel
 - Local bus service will be increased and frequency in neighbourhoods will be improved
 - There will be one fare for all GRT and ION services
- Without ION, 500 new lane kilometres of roadway (approximately 25 Hespeler Roads) are needed to accommodate growth
 - The cost is approximately \$1.4 billion and Regional taxpayers are responsible for 100 per cent of these road costs
- Building ION allows the Region to reduce the need for new roads and limit roadway costs by approximately 40 per cent or \$500 million
- ION reduces the need to build or widen roads through established neighbourhoods
- ION allows the Region to make strategic choices about road improvements and investments

In city centres

- ION will offer residents a new transportation choice
- New business, residential and commercial developments along the ION corridor will create prosperous and connected communities
- ION will help the community strike a better balance between daily car and transit use
 - By opening day in 2017, more than 36,000 people will live within 600 metres of an ION stop, and 64,000 people will work within the same area
- ION will reduce traffic congestion
- ION will help create new employment opportunities for residents

In rural areas

- By encouraging development in existing urban areas, the region's agricultural lands, natural beauty and rural lifestyle will remain preserved
- ION protects the countryside, thereby helping to support local food production
- Low-emission, shared transportation protects the environment and improves air quality
- ION will help reduce greenhouse gases and protect our groundwater

Planning for ION

The 2011 decision by Council to implement LRT in two stages was made following six years of technical studies and an extensive, unprecedented public consultation process.

The idea of a rapid transit corridor in Waterloo Region is deep-rooted and was first presented in 1976, when it was highlighted in the Regional Official Policies Plan.

Planning for ION began after the Region assumed responsibility for transit in 2000. Three years after this, in 2003, the Region included rapid transit in its Growth Management Strategy.

As part of its Places to Grow Plan in 2006, the Province of Ontario mandated the Region to plan for major population growth. With little opportunity to expand the road network in core areas, Council chose to examine rapid transit as the most sustainable solution to meet the community's growth and transportation needs.

In 2011, with support from the Province of Ontario and the Government of Canada, and following the completion of an extensive public consultation process, Council chose to implement LRT in two stages in Waterloo Region.



Comparing transit options

The Region began a Rapid Transit Environmental Assessment (EA) in 2006 to identify the best possible rapid transit system for the community. In 2007, staff developed a number of criteria to evaluate the 10 rapid transit technologies and their associated route designs. Based on the results of this evaluation, Bus Rapid Transit (BRT) and LRT were short-listed as the preferred options as they had the greatest potential to:

- Support the Region's development and intensification objectives
- Manage the use of road and railway corridors to serve major destinations
- Be compatible with existing and planned neighbourhoods

Both BRT and LRT had rapid transit stops in generally the same locations. They both required separate and protected rapidways for vehicles, with similar road impacts and property costs. The separate rapidway – for either LRT or BRT – was critical to maximize the speed of the service.

LRT vs. More Buses

Our community faced a fundamental decision in its choice to build rapid transit. As part of the EA, the Region completed a transit technology review and considered both BRT and LRT in its analysis. This involved a review of the North American experience with both technologies over the past 25 years and extensive public consultation and input.

The study concluded that LRT was the preferred technology for the following reasons:

- LRT was much more likely to achieve the objectives of the Region's Growth Management Strategy than BRT
- LRT has a higher capital and net operating cost, but provides significantly greater benefits than BRT
- LRT vehicles can carry more passengers – the full standing capacity of standard and articulated buses is approximately 75-115 passengers compared with up to 400 passengers on a two-car LRT vehicle
- LRT has a greater potential to attract transit ridership than BRT – it's faster, quieter and offers a more comfortable ride
- LRT is a stronger catalyst for development and investment than BRT as LRT infrastructure is viewed as more permanent. Bus routes can be moved, limiting their long-term development potential
- LRT is a proven influence on land values and is recognized as a planning tool that can support and encourage development of more sustainable land use patterns
- The number of buses required to meet ridership demand by 2031 would overwhelm the system north of the transit terminal at the Fairview Park Mall transit terminal



Expert panel and peer reviews

Third party experts in the fields of transportation planning, urban planning and policy development twice conducted a review of the Region's preferred rapid transit technology. The staged implementation plan was reviewed in 2009 and again in 2011.

Each time, the experts were unanimous in their endorsement of LRT from Waterloo to Cambridge, as an innovative transportation and urban planning solution that will help Waterloo Region achieve its transportation and growth management goals.

The panelists included:

- **Dr. Jeff Casello**
 - Assistant Professor at the University of Waterloo, specializing in urban transportation systems, transportation modeling, transportation and land use impacts.
- **George Dark**
 - A partner at Urban Strategies Inc., a Toronto-based full-service planning and urban design firm, with an expertise in urban design and landscape architecture.
- **Melanie Hare**
 - A partner at Urban Strategies Inc., a Toronto-based full-service planning and urban design firm, with an expertise in sustainable urban planning and transit-oriented development.
- **Dr. Eric Miller**
 - Professor at the University of Toronto, Director of the Urban Transportation Research and Advancement Centre, Director of the University of Toronto Cities Centre and Chair of the International Association for Travel Behaviour Research.
- **Glenn Miller**
 - Director of Education and Research at the Canadian Urban Institute, a Toronto based non-profit organization dedicated to providing solutions to important issues that have an impact on the quality of life in cities, such as land use, growth management, transportation, economic development and sustainable buildings.
- **Glen Murray**
 - Former Mayor of Winnipeg and chair of the Canadian National Round Table on the Environment and the Economy as well as President of the Canadian Urban Institute.

In their review, the panel noted that the Region may have, in fact, underestimated the benefits of LRT:

"The ability for LRT to catalyze change and focus city-building initiatives over the long term far outweighs the cost difference. LRT should be a long-view project constructed both to take immediate advantage but also as a pre-investment to force positive urban change and economic investment."

The Panel also encouraged the Region and its residents to think of an investment in rapid transit as "a significant first step in the creation of a robust regional and intercity transit system that will extend to, and connect with, Guelph, Hamilton, Pearson Airport, the GTA and beyond."

Finally, the panel commended the Region for the significant amount of technical review and analysis completed within the Rapid Transit EA, and noted:

"This creates a strong foundation to understand the feasibility, range of alternatives and implications of this significant investment in rapid transit for Waterloo Region."

“Experience in other jurisdictions suggests that LRT has the potential to attract riders that would otherwise refuse to take bus transit.”

– Peer Review Panel, 2011

Staged LRT to Cambridge

In 2011, Council approved the implementation of LRT from Waterloo to Cambridge. Council approved a staged approach to LRT – similar to what other communities have done when building rapid transit systems.

Stage 1 includes LRT from Kitchener to Waterloo as well as adapted Bus Rapid Transit (aBRT) from Cambridge to Kitchener. Stage 2 will see the aBRT route converted to LRT, creating a 37 kilometre route of LRT across the region’s three urban centres.

The staged approach to LRT was selected, in part, because of lower ridership south of the Fairview Park Mall transit terminal. Additionally, the capital costs were too high to build the entire system all at once. Only the Kitchener to Waterloo ridership numbers were substantial enough to secure initial funding from the provincial and federal governments.

In an effort to increase ridership south of the Fairview Park Mall transit terminal, Council approved the allocation of \$1 million per year for 10 years to enhance ridership and encourage development along the aBRT corridor in Cambridge.

The Region’s ultimate goal is to implement LRT service that moves people in and around Cambridge, Kitchener and Waterloo.

- ION aBRT service is the first step towards bringing LRT to Cambridge
- A staged approach, moving from aBRT to LRT, is the most cost-effective way to match transit with current and projected daily ridership as well as development along the corridor
- In 2011, Council committed to investing \$1 million per year for 10 years to enhance ridership and encourage development along the ION corridor in Cambridge
- In preparation for Stage 2 ION, the Region will begin public engagement on the selected route and stops in 2015



Community input: hearing from residents

Community engagement and public input is, and will continue to be, a critical part of rapid transit in the Region of Waterloo. During each stage of the process, feedback from residents has played a key role in every ION decision.

Between 2006 and 2011, Regional staff hosted more than 150 public outreach events for rapid transit, including presentations, speaking engagements and information booths. Additionally, more than 30 public consultation centres were held.

In 2011, prior to Council's decision on the implementation of rapid transit, the Region held a variety of community activities and events, including:

- 25 public consultation/information centres (2,650 participants)
- 20 consultations with local businesses and agencies (550 participants)
- two formal public input meetings at Council (101 participants)
- a live webcast (139 participants)
- 1,760 written comments from the community

In 2013, Region staff implemented a wide-range of community relations activities and events that continued engaging residents, businesses, stakeholders and community groups. Two major events featuring the LRT vehicle highlighted a successful year that also included:

- the Rapid Transit Tradeshow (a partnership with the Greater Kitchener-Waterloo and Cambridge Chambers of Commerce) with participation from more than 50 local businesses
- the Small Business Workshop Series (a partnership with the Waterloo Region Small Business Centre) with 92 businesses registering for two sessions
- 60 ION presentations to community groups stakeholders and neighbourhood associations
- 14 public consultation/information centres on a variety of topics including intersection modifications and ION stop design concepts

In 2014, from January to June, ION staff reached 3,637 residents through community engagement events and activities.

- This includes presentations to neighbourhood associations, schools, universities, businesses and community groups as well as participation at community events such as ECOFest and the Kitchener-Waterloo Association of Realtors Expo. Numerous one-on-one meetings with residents have also taken place
- In July 2014, the ION vehicle returned to Waterloo Region. Over four days in Downtown Kitchener, 4,297 people accessed the vehicle
- Later in July, an ION booth was staffed at the Sun Life Financial UpTown Waterloo Jazz Festival, and answered questions from a further 515 people

Timeline

- 1976** Creating a central transit corridor in Waterloo Region is presented in the Regional Official Policies Plan
- 2000** The Region of Waterloo assumes responsibility for public transit
- 2003** Council approves the Regional Growth Management Strategy, including a rapid transit system to help manage expected growth, protect the environment and limit urban sprawl
- 2004** The Government of Canada, Government of Ontario and Region of Waterloo jointly announce funding of up to \$2.5 million for technical studies and an environmental assessment for rapid transit in the region
- 2005** The Minister of the Environment approves the Rapid Transit Environmental Assessment Terms of Reference
- 2006** The Government of Ontario releases its Places to Grow: Growth Plan for the Greater Golden Horseshoe Plan, which includes a rapid transit system in Waterloo Region
- 2006** Council approves rapid transit as the preferred transportation strategy for Waterloo Region as part of Phase 1 of the Rapid Transit Environmental Assessment
- 2008** The Governments of Canada and Ontario identify rapid transit in Waterloo Region as a priority on which they will work together under Building Canada
- 2009** iXpress service sees a tripling in the number of weekday riders since 2003
- 2009** Council approves the new Regional Official Plan
- 2009** Council approves LRT as the preferred technology for rapid transit in Waterloo Region, along with the route, stop locations and staging plan as part of Phase 2 of the Rapid Transit Environmental Assessment
- 2010** The provincial government commits \$300 million towards rapid transit in the Region of Waterloo
- 2010** The federal government commits to funding one-third of rapid transit project costs, up to \$265 million



Timeline

- 2011** The Region approves LRT for Waterloo Region in two stages and approves a funding strategy for the new service
- 2012** The Region decides to implement rapid transit through a design, build, finance, operate and maintain contract with a public-private partner
- 2012** Early utility construction begins in preparation for Stage 1 LRT
- 2013** Rapid transit in Waterloo Region has a name. ION – meaning ‘going’ in Greek – is officially adopted as the name of the service. Five months later, in September, the official logo is approved
- 2013** The Region agrees to purchase 14 LRT vehicles for Stage 1 LRT from Bombardier
- 2013** The Region’s Request for Proposal (RFP) is released to three short-listed teams selected to design, build, finance, operate and maintain ION, following a Request for Qualification process that attracted seven interested teams
- 2013** The Region’s RFP closes with submissions received from each of the three short-listed teams
- 2013** The Region endorses the Community Building Strategy, providing a framework for development along the central transit corridor. It is one of the first strategies of its kind in North America
- 2014** The Region confirms that GRT has achieved its ridership target for 2016 – four years ahead of schedule – with 22 million riders per year
- 2014** Council awards the contract to GrandLinq to design, build, finance, operate and maintain ION Stage 1 LRT
- 2014** Region of Waterloo and GrandLinq finalize the 30 year agreement. Construction and financing costs are lower than anticipated creating a savings of \$14 million
- 2014** Construction begins on ION LRT service between Kitchener and Waterloo and on the ION aBRT service, which travels between the Ainslie Street transit terminal and the Fairview Park Mall transit terminal
- 2015** ION aBRT service is scheduled to begin (Spring)
- 2016** First ION LRT vehicle is scheduled to arrive in Waterloo Region (Fall)
- 2017** ION LRT service is scheduled to start (Fall)



ION service

The Region of Waterloo's rapid transit service is a bold and visionary plan focused on protecting agricultural lands and the environment, limiting urban sprawl and moving people.

Approved by Council in 2011, ION will bring LRT to Waterloo Region in two stages:

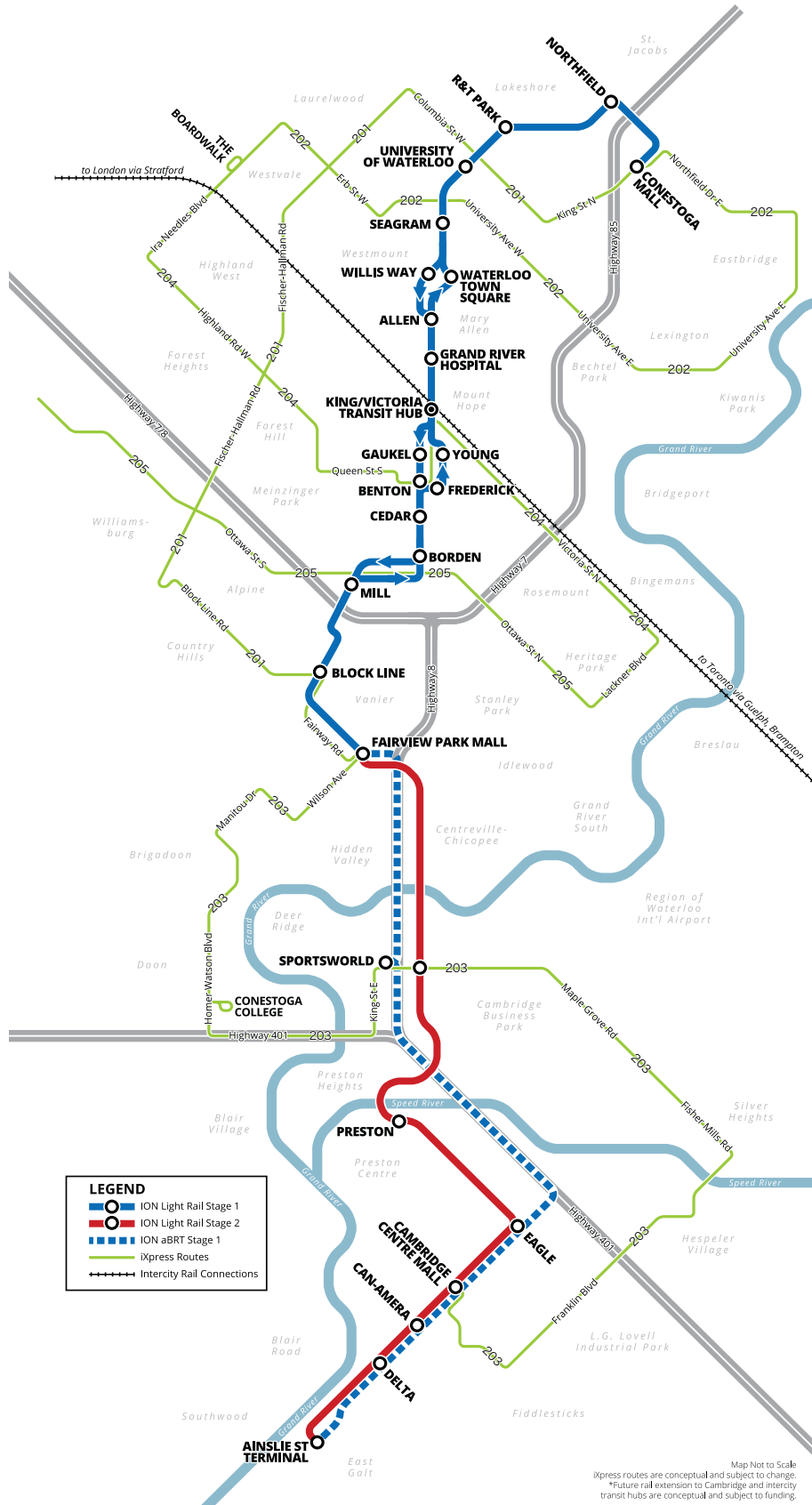
- Stage 1, scheduled to begin service in 2017, features a 19 kilometre LRT route from the Conestoga Mall transit terminal to the Fairview Park Mall transit terminal
 - With 16 stops, ION makes it easy for residents to travel between neighbourhoods, schools, major employment areas, events and shopping districts
- Stage 1 also includes a 17 kilometre aBRT route between Cambridge's Ainslie Street transit terminal and the Fairview Park Mall transit terminal
 - Expected to begin service in 2015, ION aBRT features six stops, including four on Hespeler Road
- Stage 2 will see the Region convert ION aBRT to LRT, creating a seamless 37 kilometre route of 23 stops between Cambridge and Waterloo

ION operations

- ION will travel in its own rapidway
- The LRT vehicles will be separated from car traffic and will benefit from traffic signal priority
- ION will run approximately every eight minutes during rush hour and every 10-15 minutes the rest of the day
- ION will run between 5 a.m. and 1 a.m. daily, similar to GRT
- Emergency services vehicles will be able to use the ION rapidway when required



ION route map



Region of Waterloo



ION stops

- ION aBRT and LRT stops will share a set of common elements
 - Each stop will feature:
 - Functional elements such as ticket vending machines, bike racks and digital displays that tell customers in real-time when the next ION aBRT or LRT vehicle will arrive
 - Custom elements such as landscaping and art
- ION stops will be located near key destinations, major employers, post-secondary schools and neighbourhoods/communities throughout the region, including:
 - Downtown Kitchener, UpTown Waterloo, Galt, Preston, Hespeler
 - Manulife, Sun Life, Grand River Hospital
 - University of Waterloo, Wilfrid Laurier University
 - Cambridge Centre, Fairview Park Mall, Waterloo Town Square, Conestoga Mall
- A joint fare system with GRT ensures residents can easily transfer between the bus and rail services at no additional cost



ION vehicles

- The Region's LRT vehicles (LRVs) are being built by Bombardier, a Canadian company
 - The Region has purchased 14 LRVs for ION Stage 1 LRT
- ION LRVs will:
 - Be barrier-free and fully-accessible
 - The 100 per cent low floor LRVs are the first of their kind in North America
 - Most LRVs are only 70 per cent low-floor
 - Low-floor LRVs make it easier for customers to enter the vehicle, especially those with strollers, accessibility needs or shopping carts
 - Comfortably carry up to 200 customers per vehicle
 - Passengers enter the vehicle via four doors that will open at each stop
 - Doors are located on both sides of the vehicle for easy northbound and southbound travel
 - There are 57 seats in each vehicle, along with plenty of standing room and designated areas for bicycles and passengers with accessibility needs

Public-private partnership

In February 2012, Council approved the implementation of rapid transit through a design, build, finance, operate and maintain (DBFOM) public-private partnership. This approach was selected because it provided the best balance of Regional control and ownership, while transferring appropriate risks to the private sector. It also allowed the Region to take advantage of private sector innovation and provided the greatest assurance for completing the project on-time and within budget.

In March 2014, following a comprehensive evaluation of three short-listed proposals, the Region of Waterloo approved GrandLinq as the team to design, build, finance, operate and maintain ION Stage 1 LRT.

The team, made up of leading international organizations such as Plenary, Meridiam, Aecon, Kiewit and Keolis, submitted a proposal that satisfied the Region's overall budget to implement ION Stage 1 LRT. The proposal was also within the approved funding for operations and maintenance.

On completion of the agreement between the Region and GrandLinq, construction financing costs were \$2.5 million lower than previously expected, and the 30-year financing costs dropped by \$11.5 million. These savings came about as a result of favourable interest rates

In the Region's contract with GrandLinq, the Region of Waterloo will own the ION LRT system, including all infrastructure and vehicles; set fares and the frequency of the service; be responsible for customer service and system-wide integration; collect all fare revenue; and, monitor the performance of GrandLinq to ensure all service requirements are being met.

GrandLinq will be responsible for final design of ION Stage 1 LRT; building ION Stage 1 LRT; and, operating and maintaining the ION LRT service between Kitchener and Waterloo, consistent with the Region's performance requirements.

Did you know that Public-Private Partnerships (P3s) are a proven and widely used procurement approach for large public infrastructure projects in Canada?

P3s work because they engage the expertise and innovation of the private sector. They also transfer a major share of the risks to the private sector so taxpayers are not responsible for cost overruns, delays or performance issues over the life of the agreement



GrandLinq costs and key members

GrandLinq's total capital cost is \$593 million, including net HST. This includes \$532 million funded from the LRT project budget of \$818 million and \$61 million from intersecting Public Infrastructure Works projects. The intersecting projects are being completed as part of the GrandLinq proposal, but are being funded from sources other than ION. These projects were planned and budgeted for and would have been implemented regardless of ION. For example: King Street and Northfield Drive rehabilitation and reconstruction; the underpass on King Street and the railway crossing near Victoria; and, the rehabilitation and reconstruction of King Street (Victoria Street to Union Street).

GrandLinq's annual operations and maintenance cost for 30 years includes: operations (\$4 million, plus HST and inflation); maintenance (\$4.5 million, plus HST and inflation); lifecycle (average \$8.7 million, plus HST and inflation); financing (\$11 million, plus HST); and, insurance (\$1.7 million, plus applicable taxes).

Operations and maintenance, financing, lifecycle and Region costs (electricity, project office, etc.) will be funded by transit fare revenue and the 1.2 per cent tax increase (2012-18) approved by Council in 2011. The 1.2 per cent property tax increase is being offset by other property tax reductions. As a result, the annual net property tax increase for ION will be an average of 0.7 per cent, approximately \$11 per year on the average household.

Overview of GrandLinq key members

Plenary: one of Canada's largest Public-Private Partnership (P3) developers.

- Sample project: Gold Coast Rapid Transit, Australia (DBFOM), \$1.07 billion.

Meridiam: a major international infrastructure investor.

- Sample project: Montpellier High Speed Rail, France (DBFM), \$2.32 billion.

Aecon: Canada's largest publicly traded construction company.

- Sample project: Highway 407 ETR, Toronto (DBFOM), \$2.5 billion.
- Aecon has a local office in Waterloo Region.

Kiewit: one of North America's largest construction, mining and engineering firms.

- Sample projects: Mid-town Tunnel, New York (DBFOM), \$2.9 billion.
- Kiewit has a local office in Waterloo Region.

Keolis: a world leader in public transportation operations.

- Sample project: Gold Coast Rapid Transit, Australia (DBFOM) \$1.07 billion.

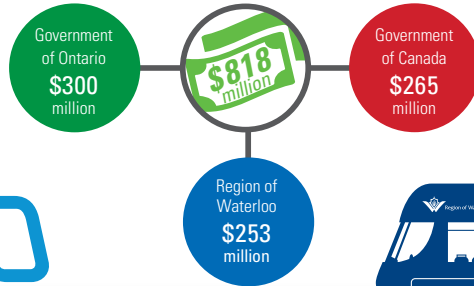


ION COSTS

There are two components to the overall cost of ION:

capital costs

Funded entirely by three levels of government



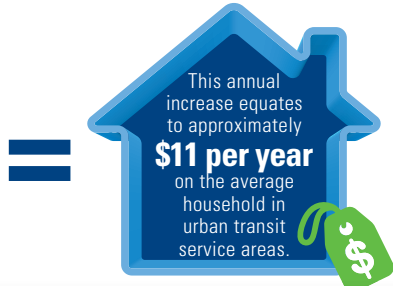
operations & maintenance costs

ION's annual operations and maintenance costs for 30 years includes:

Operations	\$4 million, plus HST and inflation
Maintenance	\$4.5 million, plus HST and inflation
Lifecycle	average \$8.7 million, plus HST and inflation
Financing	\$11 million, plus HST
Insurance	\$1.7 million, plus applicable taxes

How we pay

Operational and maintenance costs and the Region's share of capital costs are funded by transit fare revenue and the 1.2 per cent annual property tax increase in urban transit service areas (2012-18) approved by Council in 2011. This increase is reduced by other property tax reductions, resulting in an annual net property tax increase for ION of 0.7 per cent per year (2012-18).



by comparison



Long-term transportation strategy

ION is a key element of the Region's Transportation Master Plan (RTMP), which is a coordinated, long-term strategy for investment in all types of travel, including roads, public transit, walking and cycling.

The 19 kilometre ION corridor will form the spine of this efficient, integrated transportation network that will reach all corners of the region. Focused on moving people and goods in and around our community, ION will help create a prosperous future for Waterloo Region, assist in attracting new residents and businesses and allow individuals to strike a better balance between their car and transit use.



GRT

To maximize the benefits of ION, GRT will undergo a major network redesign with the goal of creating an easy-to-use, efficient public transit system for all residents. Following the launch of ION, some GRT buses will be redeployed to other routes, allowing for improved service, with new routes and increased frequency.

Network redesign features include:

- New and expanded iXpress services that link major neighbourhoods to ION as well as establish frequent and efficient transit service to key destinations
- Expanded iXpress and local services that will transport commuters to and from ION stops
- Increased local bus service and improved frequency for neighbourhoods throughout Cambridge, Kitchener and Waterloo
- A joint fare system with ION to ensure residents can easily transfer between GRT and ION services at no additional cost
- Improved connections to GO Transit, VIA rail and other inner-city transit options as well as multi-use trails

King/Victoria Transit Hub

Located at the corner of King and Victoria Streets in Downtown Kitchener, the Transit Hub will provide connections to street platforms for ION, GRT stops and inter-city services such as GO Transit and VIA rail. The Transit Hub will also link to taxi services and walking and cycling trails. In May 2014, Council authorized the establishment of a Steering Committee and Senior Management Team to oversee the process of selecting a partner for the Transit Hub.

Walking, cycling and trails

Most ION stops are located within close proximity to the region's vast network of multi-use trails.

- Since 2006, cycling facilities on Regional roads (including on-road bike lanes, multi-use trails, shared lanes and paved shoulders) have nearly doubled from 149 km to 289 km
- Region-wide, the goal is to increase the share of walking and cycling during the afternoon peak hours from 7.8 per cent in 2006 to 12 per cent in 2031. Connections with ION will help make this possible through improved accessibility

Roads

The Region continues to invest in roads throughout our community. Road improvements, in combination with ION, provide greater connectivity, quality and choice for all residents.

Since 2004, a total of 82 road expansion/improvement projects have been completed on Regional roads and bridges, for a total investment of \$247 million.

Some of the most recent investments include:

- Weber Street widening and grade separation at railway (\$57 million)
- Fairway Road Extension including new bridge across the Grand River (\$50 million)
- Ira Needles Boulevard Construction (\$35 million)
- Hespeler Road Grade separation at railway (\$25 million)
- Maple Grove Road Widening and grade separation at railway (\$20 million)
- Townline Road Widening (\$13 million)

Additionally, over the next 10 years, there are several major road expansions and improvements planned, for a total investment of more than \$860 million.

Some of these projects include:

- River Road Extension (approximately \$79 million)
- Franklin Boulevard road widening and intersection improvements (approximately \$50 million)
- King Street Grade separation at railway (approximately \$28 million)
- South Boundary Road (Cambridge) Extension (approximately \$17 million)
- Fountain Street reconstruction and replacement of Bridge over the Grand River (approximately \$12 million)
- Ira Needles Boulevard Widening (approximately \$11 million)
- CanAmara Parkway Widening (approximately \$3 million)



Building up, not out

Waterloo Region is experiencing unprecedented change.

Residents and investors are attracted to the region's quality of life, innovation and commitment to shaping the community for generations to come.

The rapid transit corridor is attracting talent, new business and growth while existing businesses are expanding and building.

Investment in the future can already be seen along the ION corridor, with new residential and commercial construction projects beginning all the time.

- More than 50 per cent of new residential development is already occurring in built-up areas along the rapid transit corridor
– *Regional Transportation Master Plan Progress Update, January 28 2014*
- The local construction industry will surge by 10 per cent in 2014 and 2015 as work on LRT begins - *Conference Board of Canada*
- For the first time in more than a decade, construction of apartments and townhouses outnumbers new single family and semi-attached home construction, demonstrating the desire for compact, urban living in our community
- There is more than \$330 million worth of investment happening right now near the ION King/Victoria Transit Hub. This includes Perimeter Development's investment in the Breithaupt Block (\$70 million upon completion), Zehr Group's investment in 607 King (\$100 million upon completion) and Momentum Development's investment in One Victoria (\$65 million upon completion) and One Hundred (\$95 million upon completion)

"The LRT helped us get our financing, it helped us with sales and it's going to help us sell the rest of the building. The LRT is the key to the whole deal as far as I am concerned."

(Peter Smith, Andrin Homes, as quoted in the Waterloo Region Record on November 9, 2013 regarding the City Centre Condos)

"One of the first questions we ask is: 'How close is the nearest LRT platform?'"

(Brian Prudham, Momentum Developments, as quoted in the Waterloo Region Record on January 16, 2014 regarding the company's recent developments at 1 and 100 Victoria in downtown Kitchener and the RED condos in uptown Waterloo)

"I'm a 26 year-old CEO of the growing startup Industry Corporation, with operations in tech and media. On behalf of my 15-person team in downtown Kitchener, we'd like to express our huge support for the construction of the LRT".

(Andrew Matlock, CEO, Industry Corporation)

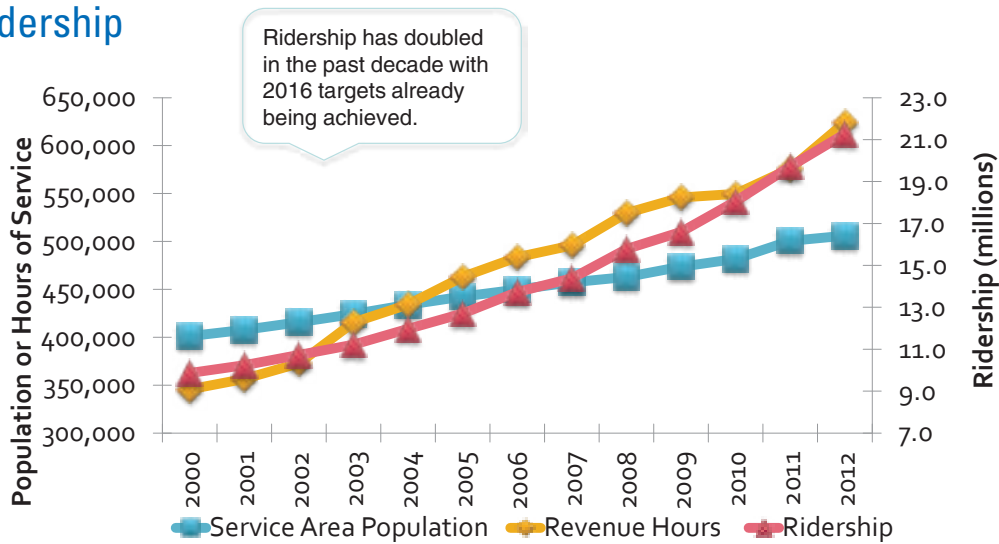


Building ridership

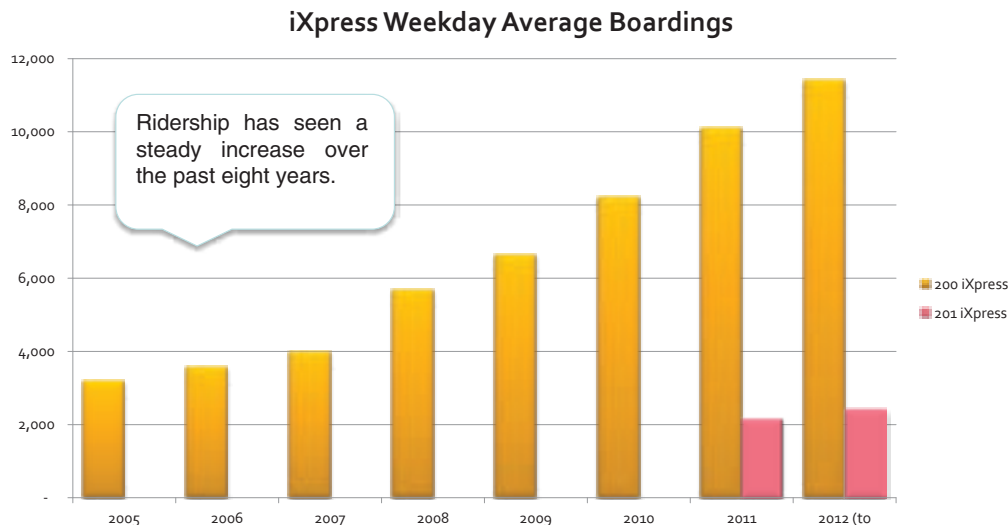
The Region is already seeing positive results in terms of transit ridership.

- Since the Region began providing transit in the community in 2000, ridership has more than doubled – from nine million per year in 2000 to nearly 23 million in 2012
- The projected year one daily ridership of ION LRT is 25,000. Today, Route 7 and iXpress already carry about 20,000 rides per day. ION will replace these routes
- GRT has already achieved its ridership target for 2016 – four years ahead of schedule – with ridership now at 22 million per year.

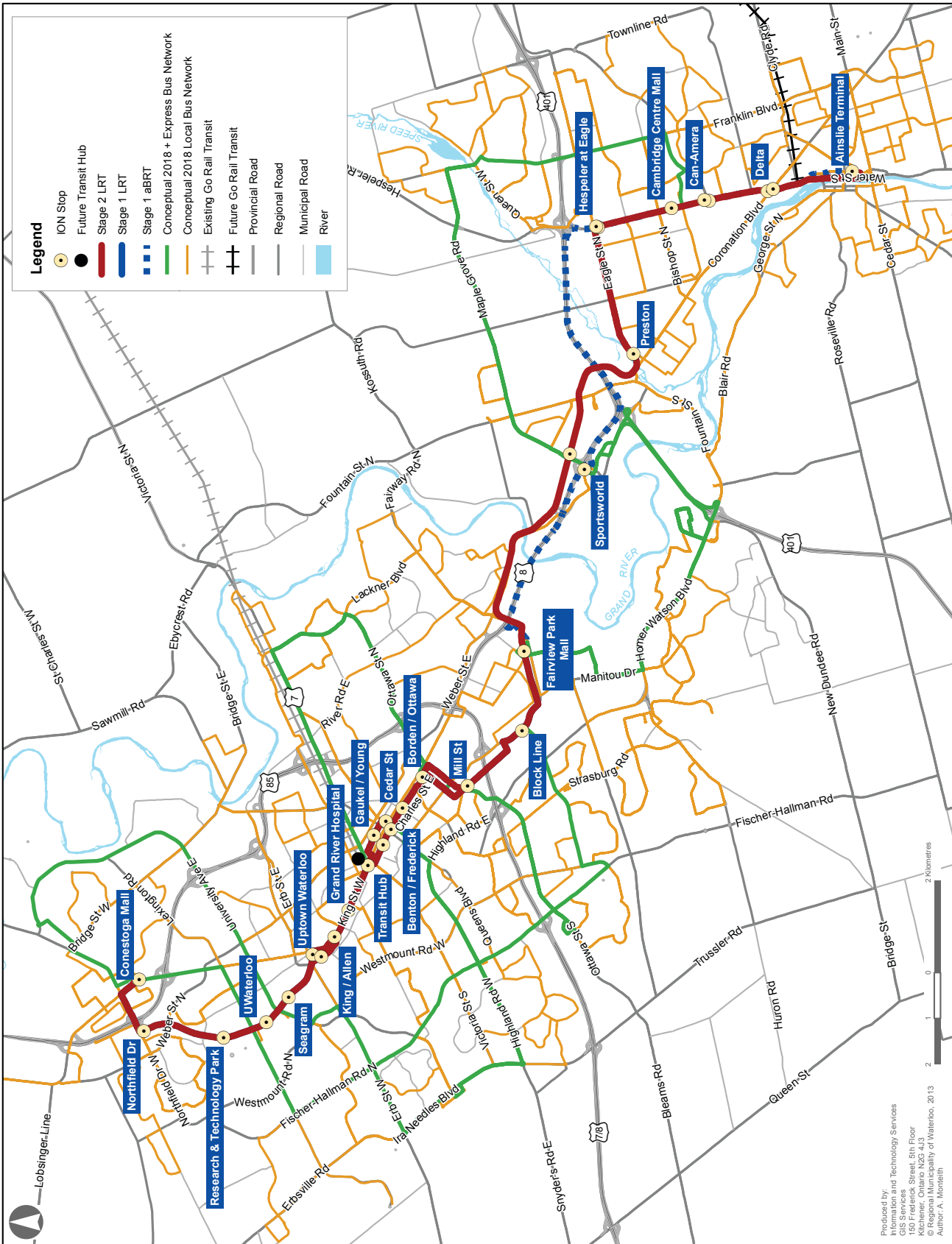
GRT Ridership



iXpress Ridership Growth



Future integrated transit network



Multiple Account Evaluation

<http://rapidtransit.regionofwaterloo.ca/en/multimedialibrary/resources/maereportjune32009.pdf>

Business Case

<http://rapidtransit.regionofwaterloo.ca/en/projectinformation/resources/Draft2009RapidTransitBusinessCase.pdf>

Peer Review

<http://rapidtransit.regionofwaterloo.ca/en/multimedialibrary/resources/peerreviewreportjune42009.pdf>

Consultation Materials

<http://rapidtransit.regionofwaterloo.ca/en/multimedialibrary/Consultation-Materials-2014.asp>

Reports & Project Updates 2005 – Present

http://rapidtransit.regionofwaterloo.ca/en/multimedialibrary/Reports2014.asp?_mid_=26025

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