



transportation

Windsor charts course with transit master plan

City of Windsor, Ontario

Green Municipal Fund Case Study



Windsor relies on buses like this one for bus-rapid-transit services (Photo: City of Windsor).

Transit Master Plan and Ridership Growth Strategy (GMEF 7163)

Date project completed: September 2006

Total project value: \$200,000

GMF grant: \$100,000

- Windsor wanted to improve transit service and double ridership
- Transit Windsor developed a 10-year master plan to streamline routes, increase frequency and set up rapid transit corridors
- Regional expansion was also part of the strategy
- Plan could cut one million tonnes of air pollution per year and reduce greenhouse gas emissions by about one per cent

OVERVIEW Transit Windsor developed a 10-year master plan to meet the City of Windsor’s goal of doubling transit ridership. The strategy was to attract riders by improving service — its frequency, speed and daily span — and by expanding the network’s reach into neighbouring municipalities. Transit-supportive policies were studied, including designing transit-friendly subdivisions and instituting parking levies and pricing that discourage car use. By increasing transit use, the plan was expected to reduce traffic congestion, cut one million tonnes of air pollutants per year and reduce greenhouse gas emissions by more than one per cent. The plan also aimed to improve quality of life through ease of mobility to jobs, schools, shopping and other key services. While calling for a major investment in public transit, the plan was fiscally responsible and positioned transit as key to continued growth and prosperity.

PROJECT TEAM

City of Windsor
Transit Windsor
IBI Group

CONTEXT Windsor, with a population of about 220,000, is the southernmost city in Canada and lies directly south of Detroit. Known as Canada’s automotive capital, Windsor demonstrates an inherent preference for the car, which affects all facets of the city’s life, urban design and transportation infrastructure. A comprehensive survey of transit users and an analysis of transit routes and service levels indicated that the network was no longer serving the city very well. In fact, the network had not been reassessed from a system-wide perspective since its inception in 1977. In the intervening decades, Windsor had grown to be a regional centre to neighbouring municipalities like Tecumseh, LaSalle, Amherstburg and Lakeshore. The city decided that developing a transportation master plan and taking a regional



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perspective would allow transit to better support Windsor's growth in the coming decades. The goal was to double ridership to 11.6 million per year by 2017.

APPROACH Transit Windsor and the city worked with a consulting firm on the master plan. The first step was to evaluate the current system. The team reviewed service levels, fares, fleet facilities, governance, marketing plans and market characteristics; they also consulted with stakeholders including transit users, non-users, city staff and transit employees. The next step was to develop a policy framework to encourage ridership growth. The team studied policies in areas of urban development and traffic and parking restrictions that support transit use and discourage car culture.

After the policy stage, the team developed a master plan consisting of a short-term, five-year service plan and a longer-term, 10-year vision for restructuring and expansion. To establish costs, the team assessed Transit Windsor's current and future needs in terms of vehicles, terminals, garages, administration buildings, bus stops and shelters, and fare collection equipment. A financial plan presented a 10-year summary of resource requirements and capital and operating costs for 2007–2016, the period when the master plan was to be implemented.

The team developed a marketing and communications plan to help reach ridership growth targets. It also reviewed intelligent transportation systems, like automatic vehicle locators (for dispatching help, monitoring schedule adherence and providing customers with information) and transit priority measures (like giving buses priority at traffic lights).

RESULTS The plan's short-term strategies, to be phased in over two years, included:

- an improved grid system that cuts circuitous routes and provides faster service and better access to the most common destinations

- standardized daily service spans and frequencies so that all routes start at 5:30 a.m., have 30-minute or better frequency Monday to Saturday and operate to 10 p.m. or 1 a.m., depending on the type of route
- 15-minute or better frequency during peak periods on the system's core routes, subject to available funding

The plan's long-term component, to be phased in over three to five years starting in 2012, aimed to increase transit ridership to a six per cent modal split — that is, to have six per cent of travellers using transit. Key features were:

- bus-rapid-transit services — fast, frequent service, every five to 10 minutes during peak times between three terminal hubs
- bus-rapid-transit infrastructure to eliminate delays — like signal priority, designated lanes — and bans on parking and stopping
- improved service in certain growing neighbourhoods outside the centre
- service in and to neighbouring municipalities (the extra vehicles and personnel would be provided by the respective municipalities)
- cooperation between city and transit officials and developers of the annexed lands south of the airport to incorporate transit into the planning

The plan called for a major investment in public transit, including 26 extra buses for service expansion, on top of renewal of the existing fleet. Other costs included terminals, bus stops, fare collection equipment, bus-rapid-transit infrastructure and salaries for more transit staff. The total capital investment over the 10-year period was estimated at \$59.25 million.

The transit master plan's most modest ridership objectives could reduce greenhouse gas emissions by just over one per cent. Extension of transit service into the four neighbouring municipalities would reduce emissions even further. The report estimated that a more



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aggressive push to public transit, with a modal split of eight to 10 per cent, could reduce emissions by up to 31 per cent.

NEXT STEPS A municipal election delayed the approval of the Transit Master Plan. Still, Transit Windsor began delivering on some of its recommendations — including the new \$7.2-million, 9,250-square-foot downtown transit terminal, which replaces the original 1940s-era terminal.

Several routes were adjusted to provide for more direct service. As the first step toward smart card technology, proposals were being evaluated for a new fare box system. An automatic vehicle location system was earmarked in the city's capital plan, and geo-coding of bus stops had begun. And the city was working on some transit-friendly land-use and parking policies.

Transit Windsor, in concert with Essex County, was also exploring funding from the federal government's ecoMobility program. It hoped such funding could help expand the reach of the transportation master plan to surrounding communities.

In July 2008, Transit Windsor and city council approved converting an order for new diesel buses to hybrid technology. In June 2009, 18 hybrid buses were received. They were to be monitored for fuel economy and reduction in greenhouse gas emissions.

LESSONS LEARNED "I'm glad we took a good look at our current state of affairs. It showed us where we needed to go," said Penny Williams, general manager of Transit Windsor.

"Even if the news isn't all good, don't shy away from the planning process," she advised. "It's a great tool to establish priorities." She added that cuts to provincial transit funding in the 1990s meant that Windsor and other municipalities took a "piecemeal approach" to planning. "A master plan can get you back on track," she said.

To make the most of the planning process, Williams suggested focusing on internal coordination between staff and consultants. She also said city staff need to understand the objectives of the master plan so they can respond effectively to information requests from consultants.

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ADDITIONAL RESOURCES To read the full report or to learn about other GMF-funded initiatives, please visit the GMF website at www.fcm.ca/gmf or contact us at 613-907-6208 or at gmf@fcm.ca.



Federation of Canadian Municipalities

About the Green Municipal Fund

The Government of Canada endowed the Federation of Canadian Municipalities (FCM) with \$550 million to establish the Green Municipal Fund™ (GMF). The Fund provides low-interest loans and grants, builds capacity, and shares knowledge to support municipal governments and their partners in developing communities that are more environmentally, socially and economically sustainable.

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