

Town of Markham's land-use policies and development charges support transportation demand management

Organization

Town of Markham

Overview

Markham has developed several communities that are based on the principles of “new urbanism.” New urbanist communities offer mixed-use developments where residential, employment, schools, parks and shopping areas are in close proximity to each other. This offers residents the opportunity to walk, cycle or use public transit for most of their daily trips—shopping, work, school, etc.—instead of driving.

Two of Markham's initiatives—the Performance Measures Document (PMD) and its transportation demand management (TDM) program—are the focus of this case study.

The Performance Measures Document (PMD) is a list of development criteria applied to the town's core, Markham Centre. One category of the PMD is devoted to sustainable transportation infrastructure.

Markham's TDM program, funded in part through development charges, supports its municipal employees and the community as a whole with a variety of TDM services.

Status

The PMD has been in place since 2003 and was recently amended to simplify the performance criteria and correlate the performance measures to Leadership in Energy and Environmental Design's LEED-NC Version 1.0 (LEED-NC project types include new commercial construction and major renovation projects). A similar PMD is now being considered for other new development areas outside Markham Centre.

Markham's TDM program continues to evolve, with a pilot telework and flexwork program now underway and planning for a community based TDM initiative scheduled to begin in 2008.

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Resources

Town of Markham, <http://www.markham.ca>

Markham Centre,
<http://www.markhamcentre.com>

Smart Commute 404-7 Transportation Management Association, <http://www.smartcommute404-7.ca>

York Region Transit, VIVA rapid transit,
<http://www.vivayork.com>.

Community context

The Town of Markham, Ontario, located just north of Toronto, is one of Ontario's fastest growing municipalities. Between 1991 and 2006, the town's population increased by more than 50%, from about 145,500 to 261,500 (Statistics Canada) and is forecast to reach 386,000 by 2021.

Such increases have put pressure on the town's transportation infrastructure and so, more than a decade ago, the town began looking at ways to accommodate growth while increasing the use of sustainable transportation.

In the early 1990's, the town began an intensive public consultation process that looked into the principles of smart growth and transit-oriented development. As the

process progressed, Markham developed several complementary land-use, development, parking and TDM policies and programs.

Policy context

In community surveys and public forums, Markham residents have consistently identified transportation, traffic and transit as major concerns.

Many of Markham’s land-use policies, therefore, set requirements for higher density and mixed-use developments, both of which enable a greater use of public transit and active transportation and decrease the need for private automobiles.

To that end, developers are requested to include TDM supportive measures—such as bicycle racks, pedestrian access to transit, bicycle lanes and carpool parking—in their commercial and residential developments. The town also encourages developers and employers to participate in the local transportation management association, Smart Commute 404-7.

Rationale and objectives

As a fast-growing municipality Markham has recognized the need for and importance of a sustainable transportation strategy. As its population grows, its land-use policies and TDM strategies have become increasingly important to maximize the use of the town’s transportation infrastructure and improve the quality of life for its residents.

Supporting Policies

Several of Markham’s land-use, transportation and development plans and policies support sustainable transportation and transportation demand management.

- The Official Plan (OP) sets forth the town’s vision of promoting compact, mixed-use development that encourages sustainable transportation. The OP stresses that pedestrian and other forms of non-motorized transport must be considered in all new developments, and that all major development proposals must be evaluated with respect to their impact on public transit services.
- Cycling Master Plan (CMP). The goal of the CMP is to develop a comprehensive and connected network of clearly identified cycling facilities throughout the town. The CMP built upon an existing “neighbourhood network” plan that identified cycling routes and formed a basic network of on-road neighbourhood cycling routes that linked Markham’s urban areas.
- Markham’s development charge bylaws grew out of Ontario’s Development Charges Act, passed in 1989 and amended in 1997. The Act allows Ontario

municipalities to establish a 10-year average for development-related transportation infrastructure costs on a per capita basis. The town then developed a series of development charge bylaws that determine the charges to be levied, depending on the specific area of town, the town’s TDM needs and the type and cost of the transportation infrastructure required.

Markham Centre Performance Measures



- Performance Measures Document (PMD). The PMD is a compendium of environmental, building design and other sustainable development criteria that were created specifically for the development of Markham Centre, an emerging downtown area in the centre of Markham. As a policy document for Markham Centre, the PMD supports the vision and goals of the town’s Official Plan.

Actions

This case study will focus on how two of the town’s initiatives—the Performance Measures Document and its TDM program—have helped to increase sustainable transportation options for Markham residents.

Performance Measures Document

Markham Centre is a 384-hectare area (approximately 949 acres) within the town’s core. The town’s vision was to accommodate future growth (with limited expansion into the surrounding countryside) by intensifying development in specific locations, including the creation of a high-density, mixed-use downtown. Such development would take advantage of existing infrastructure, would be served by public transit, and would provide a more diverse and sustainable municipality.

In 2001-2002, the town began work on what would ultimately become the Performance Measures Document (PMD).

The PMD is a list of development criteria applied to Markham Centre. It provides the development community with a consistent and precise list of indicators that adhere to the town’s vision—from transportation elements to the built form. It also gives staff and advisory committee members a “yard stick” by which to measure all new development applications.

Town officials first struck an advisory committee made up of members of the community, including developers, community and business associations, retailers and schools.



The inaugural meeting of the Markham Centre Advisory Committee took place in May 2002.

The Markham Centre Advisory Committee worked with the community, hosting a series of public workshops and a conference to receive public input with respect to five broad areas:

1. Transportation
2. Greenlands
3. Built form
4. Green infrastructure
5. Public spaces.

From this information, the committee identified easily understood performance measures and indicators for developers in each of those five areas.

For transportation, they focus on five component areas—roads, transit, biking, walking and TDM—that promote a balanced transportation system.

These measures include such things as:

- Clearly visible and safe pedestrian crossings
- Transit stops that are within a 5-minute walk of the development
- Provision of inter-connected bicycle systems and bicycle support facilities (e.g., bike racks, shower and change facilities in commercial properties, etc.)
- Sidewalks on both sides of the road and connectivity between sidewalks and off-street pathways.

A “Smart Growth Checklist” accompanies the measures and includes a list of questions for each of the five component areas (roads, transit, biking, walking and TDM). The checklist helps staff and advisory committee members look for specific information with each application.

For example, checklist questions that are specific to the area of transportation demand management include:

1. Is the project planned and designed to promote Transportation Demand Management?
2. Does the plan reduce reliance of single occupancy vehicle trips?
3. Where surface parking is proposed, is it limited to future extension and has it been subdivided by a grid of road rights-of-way to facilitate future intensification?
4. Are bicycle support facilities incorporated into the development?

Staff members use these checklists to provide an initial assessment of each new development application. Once all questions in the checklist have been addressed, staff members can begin formally evaluating the application in terms of the performance measures. The Markham Centre Advisory Committee also reviews the application.

Performance measures are given a “gold,” “silver” or “bronze” rating. The ratings are applied to development proposals as an indication of whether the proposal meets or exceeds the town’s standards and expectations.

These ratings are used to benchmark how well the developer is meeting the PMD criteria. Developers can submit their application to the Advisory Committee before the formal application process begins to obtain their comments and feedback. If a developer meets all of the performance indicators and receives a “gold” rating, fewer discussions among staff and council will likely be needed before approving the application.

In essence, “getting it right the first time,” is a powerful incentive that can save developers time in the application process. It can also save developers the costs that are associated with delays in the application approval stage.

However, if staff and committee recommendations require that the developer modify the application, a second review process is undertaken once the revised application is received. Depending on the type of application, a public meeting is then held and a staff report is brought forward to the Development Services Committee, and ultimately to Council, for approval.

To ensure transparency, the Town of Markham publishes “report cards” on its Web site of each of the new developments within Markham Centre. Community residents can easily determine which projects are on target to meet the PMD goals.

At build-out, Markham Centre will be home to more than 25,000 residents and 17,000 employees. Occupancy has already occurred in some of the first phases of Markham

Centre projects and, in early 2009, the VIVA rapid transit network (operated by York Region Transit¹) will be running in a dedicated alignment through parts of Markham Centre.

The PMD has been working successfully in Markham Centre for five years. Recently, the number of PMD criteria was cut due to correlations identified with LEED and to reduce overlap between some of the indicators (i.e., there are now 62 criteria as opposed to the 152 in the original PMD).

TDM Program

In 2002, Markham undertook a transportation study that reviewed the town's entire transportation network (roads, policy, transit, education, etc.). The results of that study helped to inform a number of the town's policies and programs, including Markham's TDM program.

Shortly after the study was complete, the town hired a full-time TDM coordinator to create and oversee its TDM program.

The TDM program supports Markham's goal of creating more compact, mixed-use development and is split between programs for employees and those that serve the wider community. The TDM program is funded in part from development charges.

TDM for Town of Markham employees

The TDM program for Town of Markham employees offers a full suite of commuter options including:

- Ridematching system
- The use of teleconferencing/videoconferencing
- On-site amenities (ATM, sundry store, exercise equipment, bike parking, showers, lockers, change rooms, etc.)
- Fleet vehicles for employee use
- Discounted (50%) transit passes
- Transit/ticket sales onsite
- Bicycle users group (5% participation)
- Transportation fairs/events
- Preferred parking for employees who are registered with Carpoolzone.ca
- Emergency or guaranteed ride home

¹ York Region Transit was created in 2001 to combine five municipal transit authorities—Vaughan Transit, Markham Transit, Richmond Hill Transit, Aurora Transit and Newmarket Transit—into one. VIVA rapid transit has been in operation since 2005.

As part of the educational component of its TDM program, Markham also supported the Sustainable Transportation Education Program (STEP), a pilot program that educated high school students about sustainable transportation issues and options. It also supports local schools by combining the "School Safety Zone" traffic management program with the Active and Safe Routes to School programs (Walking School Bus, anti-idling projects, International Walk to School Day, etc.).

TDM for other employees

In 2005, Markham joined its neighbouring municipality, Richmond Hill, in the Smart Commute 404-7 transportation management association (TMA).



Although many of the services offered by the TMA were already underway in Markham (e.g., guaranteed ride home, discounted transit passes, ride matching services, etc.), participation in the TMA has allowed the town to reach a wider number of area employers.

Smart Commute 404-7—part of the larger Smart Commute family of TMAs that serve the Greater Toronto Area—provides a number of services to local employers to promote a wider range of transportation options to their employees.

Some of these services include:

- Exclusive ridematching program for employers called Carpool Zone (www.carpoolzone.ca). The service, launched in January 2006, is offered to all of the local Smart Commute TMAs
- Site assessments and surveys to understand employee commute behaviour
- Shuttle programs
- Emergency ride programs
- Employee work arrangement solutions such as telework, compressed workweeks, flex hours, workshops and seminars.

Smart Commute 404-7 was marketed directly to more than 1,800 Markham Board of Trade and Richmond Hill Chamber of Commerce businesses. Members of the Markham Board of Trade are automatically eligible to participate in the TMA.

In partnership with York Region Transit, the towns of Markham and Richmond Hill, the Markham Board of Trade and the Richmond Hill Chamber of Commerce, the town launched the "LunchExpress" pilot project.



The LunchExpress bus route was launched in 2007.

A dedicated bus route runs on Fridays from 11:30 a.m. to 2:30 p.m., picking up riders along the way and dropping them at restaurants or shopping areas. The program was designed to bring customers to local restaurants via transit in order to ease lunchtime traffic congestion, reduce parking needs and promote local economic development. About 25 restaurants participate, with some offering a 10% discount when diners show their bus transfer.



The new YMCA, situated close to the Unionville GO Transit station, opened in May 2006.

Results

Performance Measures Document

- Since adopting the PMD, a new YMCA, a high school, the Honeywell office building, and several residential developments have been completed, many of which are located near rapid transit facilities and/or contain active transportation infrastructure such as bicycle racks, showers and changes rooms. In addition, many of the local developers and employers are members of the Smart Commute 404-7 transportation management association.

- The Remington Group is the largest of the developers in Markham Centre, responsible for developing 243 acres (about one-quarter of the area). The company adheres to a sustainable building policy, which includes the criteria set forth in the PMD and the criteria specific to buildings through LEED program. It has consistently achieved “gold” ratings for the transportation elements of its developments.
- The PMD received the 2003 FCM-CH2M HILL Sustainable Community Award in the Sustainable Community Planning category.

TDM Programs

- More than 100 area businesses are now involved, representing about 25,000 employees. For example, IBM Canada, Markham’s largest employer, was an inaugural member of Smart Commute 404-7. The Markham office benefits from IBM’s worldwide teleworking program; the company also supports an employee bicycle users’ group, was one of the region’s first corporations to install showers facilities for active commuters and was one of Carpoolzone.ca’s first corporate participants.
- In 2007, the Town of Markham and Richmond Hill were awarded the Transportation Association of Canada’s Sustainable Urban Transportation Award for the Smart Commute 404-7 program.
- As of 2008, Carpool Zone had 1,200 registered users in the 404-7 area.
- About 160 of Markham’s 1,000+ municipal employees are registered for the town’s 50 per cent discount on bus passes and about 50 employees are registered with Carpoolzone.ca.

Participants

Town of Markham

A 20-25-member advisory committee oversees a portion of the review process for new Markham Centre development applications. The committee is comprised of residents and representatives from developers, local employers, business improvement associations, the Board of Trade, universities, NGOs, municipal staff and school boards.

Smart Commute 404-7 members

York Region Transit

Resources

The annual budget for Markham’s TDM program is approximately \$300,000 and is funded in part by development charges. The budget is broken down into the

following categories:

- \$75,000 for Smart Commute 404-7 TMA support
- \$55,000 for town employee commuter options (operating cost)
- \$10,000 for the Active and Safe Routes to School program for elementary schools
- \$10,000 for a sustainable transportation education program for high schools
- \$60,000 for a community-based TDM program
- \$90,000 for a TDM coordinator

Timeline

Early 1990s-2001. Public consultations and visioning process on the town's long-term vision for a sustainable community begins. Work begins on the PMD.

2002. Transportation study undertaken; employee TDM program begins in partnership with Pollution Probe.

2003. Performance Measures Document approved by council.

2003-present. Construction begins on several Markham Centre developments; as of 2008, several have now been completed with more scheduled for completion by 2008-2009.

2004. Development charges by-laws were passed for specific areas, including Markham Centre.

2005. Smart Commute 404-7 Transportation Management Association launched.

2007. Markham Parking Advisory Committee established.

2009. Portion of the dedicated VIVA rapid transit alignment through Markham Centre to be completed.

Lessons learned

Political will and leadership are vital. Markham's council supported the PMD and the TDM strategies by putting in place the resources and procedures necessary (advisory committee, participation in Smart Commute, etc.) to ensure that these initiatives are sustained over the long-term.

Provide measurable targets. Because the PMD sets forth specific criteria for developers, the development community knows exactly what to expect from the municipality. The PMD also helps keep the town on track with respect to the vision and goals it set forth in its Official Plan.

Establish partnerships. The town has established a variety of partnership with community and business groups, including the Town of Richmond Hill, Markham

Board of Trade, Pollution Probe, schools, developers and retailers. Its relationship with The Remington Group, Markham Centre's largest developer, is a case in point. Remington supported the town's vision by adopting its own sustainability policies, which helped gain buy-in from other developers.

Create community buy-in. Markham created advisory committees for several of its communities. Policies and plans include the PMD and its cycling plan. The Cycling and Pedestrian Advisory Committee oversaw development of the cycling plan. These plans were well articulated to the public and were developed in partnership with all sectors of the community, giving residents a feeling of connection to the overall goals and objectives.

Think multi-modal. Generally speaking, when municipal planners and engineers think of transportation they think only of roads and cars. Markham officials say that encouraging municipal staff to consider the many different modes of transportation—and the infrastructure related to each of those modes—is a key part of their strategy to achieve sustainable transportation goals.

Next steps

Due to the success of the PMD in Markham Centre, similar performance criteria are being considered for other new communities, including Cornell Centre.

The town is closely watching the pilot phase of LEED for Neighbourhood Development, a new system created by the U.S. Green Building Council. LEED for Neighbourhood Development will go beyond green building design and deal with a greater number of smart growth elements including sustainable transportation.

Markham is also planning to pilot a telework and flexwork program for its employees, and a community based TDM initiative beginning later in 2008.