



CITY OF MISSISSAUGA

MISSISSAUGA TRANSITWAY
HIGHWAY 403 – EGLINTON AVENUE CORRIDOR
ENVIRONMENTAL ASSESSMENT ADDENDUM

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McCormick Rankin Corporation
in association with
Ecoplans, Ltd.



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1 INTRODUCTION

In 1992, the City of Mississauga submitted the three-volume *Mississauga Transitway Environmental Assessment Report* (City of Mississauga, January 1992) to the Ministry of the Environment and Energy of Ontario, seeking approval for the development of a bus-only roadway in the Highway 403 / Eglinton Avenue corridor extending from Ridgeway Drive to Renforth Drive. The Individual EA was found to comply with the requirements of the Environmental Assessment Act, RSO 1990, and approval to proceed was granted on July 6, 1993 (see Appendix F).

The City, in partnership with GO Transit, now intends to move forward with the Transitway. However, some modifications to the 1992 plan are proposed. This submission is an Addendum to the Mississauga Transitway Environmental Assessment to meet the provisions of the procedure in the approved Environmental Assessment. This Addendum does not alter or affect the conditions of approval as outlined by MOE in the 1993 Notice of Approval to Proceed.

Although the City of Mississauga has been the lead agency in planning the Transitway (with financial support from the Ministry of Transportation of Ontario and from GO Transit), responsibility for funding, constructing, and operating the facility remains subject to the outcome of future discussions and agreements among various levels of government and funding partners. No matter what agency or agencies are ultimately made responsible for the Transitway, it is intended that they be bound by the plans and commitments embodied in the EA document as modified by this Addendum.

1.1 Background

Following the Transitway's approval in 1993, in the period 1994-1995 the City undertook the implementation of the first stages of the Transitway program with

- the widening of Highway 403 between Erin Mills Parkway and Mavis Road to accommodate bus use of the highway shoulders (in conjunction with the Ministry of Transportation of Ontario),
- the construction of Centre View Drive and
- the completion of the first phase of the City Centre transit terminal.

Due to a change in the Provincial funding policies for public transit in 1996, further development of the project was deferred and the project lay dormant.

However recent developments have re-kindled interest in the Transitway plan:

- New funding programs for municipal transit have been established at the Provincial and Federal levels.
- The City undertook a strategic transit strategy study and confirmed the role of the Transitway in the municipal and regional transportation system.
- GO Transit undertook a study of an inter-regional Bus Rapid Transit (BRT) line across the Greater Toronto Area in 2002 and announced its

intent in December 2002 to begin to implement it. The BRT plan incorporates the Mississauga Transitway in its entirety (see Figure 1.1).

It should be noted that the Mississauga Transitway, although recognized as a key element in the GO Inter-Regional BRT plan, is capable of functioning as a stand-alone facility within Mississauga until neighbouring segments of the GO BRT proposal are in place.

These developments underlined the need for the City to be in a position to respond quickly to possible initiatives with an up-to-date proposal, and for the City and GO Transit to work together to lay the groundwork for the Inter-regional BRT plan through Mississauga.

Accordingly, the City initiated an investigation to provide a complete update of the City's transit plans for the Highway 403 / Eglinton Avenue Corridor. The results would allow the City to quickly respond to possible Provincial, Federal and private sector funding opportunities and to effectively communicate the details of the project to elected representatives and the general public.

As part of the review, the City wished to update the demand estimates to reflect revisions in the population/employment forecasts and to review the approved plan in light of changes in development abutting the facility, current BRT design standards and recent construction unit costs. The City, recognizing the limitations of the funding available from senior levels of government, included the application of "value engineering" techniques to reduce the cost of the project. A cost-effective implementation schedule was developed for the facility.

Figure 1.1– GO BRT Proposal

1.2 Addendum Process

The approved (1992) EA for the Mississauga Transitway recognized the potential for subsequent changes in the plan. Chapter 7, "Mechanism for Changes to Approved Plan", was therefore included in the document. The section commented on the responsibilities of the proponent should changes to the approved plan be requested by the proponent, given the combination of a lengthy approvals, funding and construction process. The following is an excerpt.

The [1992 Mississauga Transitway EA Report] identifies property envelopes within which stations [could] feasibly be constructed. Their actual layout is subject to detail design and any variation from that shown in the report, unless it results in a more severe environmental impact, which cannot be accommodated within the committed mitigation measures, does not require a change to the approved plan. Significant changes in station location (for example, from one quadrant of an interchange to another) could potentially result in impacts which differed from those identified in the report; since such a change would have no bearing on the overall rationale for the Transitway, but would only occur in response to a localized design or property issue, it would be inappropriate to prepare and submit for approval an entire new EA report.

Rather, the proponent would prepare an addendum to the EA report, undertake a public review process involving affected local interests, and file the addendum with the M.O.E. as an appendix to the existing report. MOE may approve the addendum or undertake a limited government review process to ensure that all concerns have been dealt with.

Design shifts within the identified property envelope of the Transitway do not require changes to the EA approval.

In accordance with the approved mechanism, this EA Addendum was prepared to address the proposed changes in the area within the City Centre and west from the City Centre to Ridgeway Drive. The proposed revisions east of the City Centre are considered within the property envelopes indicated in the approved EA and their potential implications capable of being mitigated within 1992's committed / approved measures.

In November of 2003, the City of Mississauga submitted a Work Plan to MOE outlining the steps to be completed in the EA Addendum process. The suggested revisions were incorporated into the proposal.

1.3 Content of the Addendum

The rationale for the Undertaking is provided in **Section 2** including the updated ridership forecasts, the extent of the changes to the corridor development assumed in the 1992 Submission and the selected adjustments to the facility design standards.

Section 3 provides an update of the study area conditions, focusing on those features that have changed since the time of the original EA study in 1992. The proposed changes to the Transitway project are fully described in **Section 4**, and the impacts of the changes on the study area are documented in **Section 5**. Section 5 also contains any commitments to mitigation that arise from the impact assessment. The submission concludes in **Section 6** which details the consultation program completed and the responses received.

2 UPDATE OF PROJECT RATIONALE AND SCOPE

2.1 Demand Estimates

The need and justification for the Transitway as approved in 1992 is not at issue here. However, as background to the reassessment of design standards and of the design of specific Transitway segments, the City of Mississauga updated transit demand forecasts.

The primary objective of the demand forecasting exercise was to determine / confirm whether or not the interregional transit service in the Highway 403 – Eglinton Avenue corridor still warranted a fully grade-separated design. This knowledge would contribute to the Value Engineering aspect of the update study. A secondary objective of the demand forecasting was to frame the service plan and staging strategy.

The demand forecasts were prepared to reflect current population/employment growth estimates, person trip generation rates and demand distribution. Certain unique features were added to ensure the ridership estimates reflected the potential upgrading of transit services on the balance of the transit network including the TTC, GO Transit and York Region Transit systems.

The procedure incorporated transit modal split experience as reflected in the 2001 Transportation Tomorrow Survey (TTS) and current passenger surveys. This established the probable future transit demand with the BRT corridor and the supporting linkages in place and compared this with the existing trend modal split demand. The procedure and assumptions were consistent with the recently completed GO BRT Study. The details of the demand forecasting update can be found in Section 2 of the City of Mississauga report *Bus Rapid Transit (BRT) – Mississauga Segment Implementation Plan, 2003*.

The demand forecasting procedure confirmed the requirement for exclusive right-of-way transit operations. The results of the analysis which incorporated a considerable range of scenarios and assumptions indicating a range of 5,000 – 10,000 passengers per hour in the peak direction to 2011, with further growth to 2021 and beyond. The practical limit of an on-street bus lane is in the order of 4,000 passengers per hour. The updated forecasts were consistent with the demand estimation derived from the 1992 EA investigation as indicated in the following tabulation.

Table 2.1 – Comparison of Forecast AM Peak Hour Ridership

Eastbound Ridership	EA Submission 1992	2002 BRT Model
	“Ultimate” A.M. Peak Hour	2011 BRT A.M. Peak Hour
W. of Erin Mills Parkway	5,000	3,800
W. of Hurontario St.	9,500	9,900
W. of Dixie Rd.	11,000	10,300
W. of Renforth Ave.	9,800	9,700

Two related points of interest are in the City Centre area and at the Renforth Station. The forecast population and employment in the City Centre in the early 1990s reflected an aggressive development target, with over 100,000 jobs being planned for. More recent forecasts have been for a greater residential component and a reduced, but still substantial, employment level of almost 40,000 jobs to 2021 (see Table 3.1, Pg. 20).

The demand forecasting procedure verified that the reduction in City Centre employment opportunities was the major factor in lower forecast ridership on the Transitway compared to the levels forecast provided in the recent GO BRT study. Accordingly, a reduction in the scale of the City Centre Station was indicated.

The analysis further reinforced the need to provide a gateway station at Renforth Drive. The ridership on the Transitway at that point would be comprised of those destined to the Airport, northern Toronto, Toronto's CBD and the TTC Kipling station. The Renforth Station would be the logical hub for these transfers due to its connectivity with the Mississauga Transitway, the BRT Spine Line, the Eglinton West BRT Line, Malton / Bramalea transit services operating on Highway 427, and the "higher order" transit services focused on the nearby Airport.

2.2 Revised Project Scope

The Transitway plan as approved in the 1992 EA submission was reviewed to ensure that it reflected current design standards, appropriate alignment and station provisions and funding constraints. The facility was reviewed segment-by-segment, with consideration given to new alternatives alongside modifications of the earlier plan.

In doing so, each of the components was developed in sufficient detail to provide the proper basis for an updated estimate of construction feasibility, impacts and costs. The costing approach was an extension of the work breakdown structure (WBS) used in the EA Submission to ensure the analysis was traceable. The elements of the 1992 EA plan suggested for modification are outlined in the remainder of this section:

- Western Terminal
- Ridgeway Drive to Erin Mills Parkway
- Highway 403 Bus Bypass Shoulders vs. Exclusive Transitway
- City Centre Terminal
- City Centre to Renforth Drive
- Design Standards
- Value Engineering Analysis

2.2.1 Western Terminal

The Mississauga Transitway EA submission did not foresee the Transitway as a standalone facility; rather, it was designed to extend westward past the final station at Ridgeway Drive to an equivalent facility in Halton. At the east end, it was shown carrying on past the Renforth station to connect with the TTC's proposed Eglinton West Rapid Transit line. However, since those areas lie outside the jurisdiction of the City of Mississauga it was assumed that Halton and Toronto respectively would implement similar facilities (per their Official Plans) resulting in a seamless and continuous transit facility across the corridor.

Nevertheless, the western stations on the Transitway were designed to intercept as many trips as possible before they entered the congested road network in central Mississauga. Accordingly, a major Park & Ride lot was protected for at Winston Churchill Boulevard and another Park & Ride opportunity was laid out at the Ridgeway Drive

station. The latter also included bus turnaround and layover facilities in the event that it functioned as the interim terminus of the Transitway. Connections to the Halton system were left at the conceptual level.

The GO Transit Interregional BRT Plan, which largely reflects the Mississauga Transitway plan through this area, extends the Transitway to a connection with Highway 407 where it could link with the proposed Highway 407 Transitway as well as with buses on the Oakville Link between 403 / 407 and the QEW. The GO BRT plan relies less on actions by Oakville and Halton for continuity, yet retains the ability to tie in with municipal links to the west.

2.2.2 Ridgeway Drive to Erin Mills Parkway

In the section between Ridgeway Drive and Winston Churchill Boulevard, the property adjacent to the north side of the Highway 403 / Transitway / Hydro corridor was vacant and subject to a land use planning study at the time of the Transitway EA in the early 1990s. It was designated for commercial / industrial use at the time, and the Transitway alignment was located between the Hydro corridor and the development lands in order to reflect the potential integration of stations and development. Subsequently, however, the land use designation along the north side of the Hydro corridor has changed to residential and construction has begun. The location of the Transitway immediately adjacent to new homes is less desirable, and the Transitway is therefore proposed to be relocated from the north side of the Hydro corridor to the south side between the Hydro lands and Highway 403. This approach is consistent with the alignment policy elsewhere along the corridor.

The Erin Mills station was planned in 1992 as a substantial transit interface site, but its role as a major transit focal point has now been shifted to the Erin Mills Town Centre located just north of the proposed station. Accordingly, the Erin Mills Transitway station is considered to operate principally as an "on-line" station under the revised proposal.

In the Transitway EA, parking was focused on the westerly stations, while the Erin Mills station had no Park & Ride or passenger drop-off provisions even though sufficient space is available on site. The updated operational strategy, involving both GO Transit and Mississauga Transit, has maintaining maximum operational flexibility as a priority. Furthermore, the MTO, in support of the High Occupancy Vehicle lanes currently being constructed on Highway 403, is seeking carpool parking opportunities in the corridor. Accordingly, it is now proposed under this Addendum to protect for parking and passenger drop-off facilities at the Erin Mills station.

2.2.3 Highway 403 Bus Bypass Shoulders vs. Exclusive Transitway

In the mid-1990s, the outside shoulders of Highway 403 between Erin Mills Parkway and Mavis Road were widened to allow bus operations. The Highway 403 structure across the Credit River was expanded to accommodate continuous wide shoulders. As well, improvements at the Erin Mills / 403 interchange were made to provide bus priority access between Erin Mills Parkway north of Highway 403 and Highway 403 east of Erin Mills Parkway. The westbound bus lane on Highway 403 extended along the Erin Mills Parkway exit ramp, while a bus-only left turn was constructed from Erin Mills Parkway southbound to the south-to-east entry ramp to Highway 403. This was intended to facilitate Mississauga Transit express services between Meadowvale and the City Centre and GO buses serving the Credit Valley Hospital.

The Bus Bypass Shoulders (BBS) became operational in November 2003. The bus-only pass-through at the south side of Erin Mills / 403 interchange opened in mid-2004, and subsequent transit improvements may include transit priority in the westbound direction at the Mavis Road / 403 interchange and on the exit ramps at Erin Mills Parkway.

The approved Mississauga Transitway focused on the long-term “ultimate” need for a continuous dedicated bus-only roadway in the corridor, and left Highway 403 improvements such as the BBS and HOV lanes for consideration in the implementation strategy. The recent investigation, which focuses more on implementability, reassessed the potential role of the BBS facility with respect to transit needs in the corridor. The details of this review are provided in Section 3 of the *Bus Rapid Transit (BRT) – Mississauga Segment Implementation Plan, 2003*.

The analysis concluded that while the Transitway/BBS alternative suffers a slight loss in functionality, primarily in the area of reliability, compared to the Transitway, this option is considerably less costly, easier and faster to implement, and provides a more cost-effective approach. It is very similar to the successful operation of the Ottawa Transitway on the shoulders of Road 174 (former Highway 17). The BBS operation is viewed by the MTO as an interim plan, but with minor widening and upgrading to full Reserved Bus Lane function, the operational performance of this option will remain high for the foreseeable future.

This strategy is a long-term plan for maintaining high-speed and reliable bus operations between Erin Mills Parkway and the City Centre, but it does not obviate the need to continue to protect for the fully separated Transitway alongside Highway 403, as approved in 1992.

With bus use of Highway 403 as part of the revised plan, the Creditview station becomes a freeway shoulder station with passenger access to Creditview Road. This would allow passengers on Creditview Road routes to transfer to and from the east-west Transitway, and would form a link between the Transitway service and the nearby GO Train Erindale Station.

At the Mavis interchange eastbound buses exit from the Highway 403 shoulder lane using the existing general purpose ramp to Centre View Drive. Transit priority will apply on the approach to the City Centre, where a bus-only left turn will be provided east of Confederation Parkway for access to the below-grade segment of the Transitway within the City Centre.

Westbound buses on the busway between Centre View Drive and Highway 403 will exit from the busway into an exclusive lane on the east side of the proposed Confederation Parkway Bridge over Highway 403 and then into an exclusive westbound single lane busway on the north side of Highway 403 passing under the various Highway 403 ramps to merge with the westbound Highway 403 shoulder lane west of Mavis Road. This arrangement takes advantage of the early construction of Confederation Parkway across Highway 403 to establish a transit crossing without the cost and disruption of a tunnel.

The split between eastbound and westbound bus operations, and the proximity of the City Centre to the Mavis corridor (i.e. all Mississauga Transit routes on Mavis would go to the City Centre terminal, so a transfer point with the Transitway at the 403 interchange would be redundant) allows the elimination of the proposed (1992) station at Mavis Road.

This arrangement for the east and westbound buses replaces the originally proposed busway tunnel under Highway 403 near Confederation Parkway. The new Confederation Parkway structure over 403 will protect for a two-way bus roadway alongside the general traffic lanes, thus protecting for the ultimate two-way Transitway on the north side of Highway 403.

2.2.4 City Centre Terminal

The City Centre Terminal was a major focus of the recent investigation given its influence on the performance of both the Transitway system and Mississauga Transit in general. There are capacity problems with the existing City Centre terminal. The analysis considered terminal expansion requirements, Transitway alignment alternatives and the potential use of the expanded local road network to improve performance and passenger convenience while reducing capital costs. The restricted conditions within the City Centre area were recognized in the review of physical feasibility and in attempting to reduce construction costs. The details of the analysis are identified in Section 3.3 of the report *Bus Rapid Transit (BRT) – Mississauga Segment Implementation Plan, 2003*.

The analysis shows that in order to provide an attractive, high capacity operation, separating the inter-regional and express transit services from mixed traffic is required. While initial capital costs to do so are high, the reduced operating costs over the life of the facility will be substantial.

Although it would be less costly to keep the Transitway in the Highway 403 corridor, it was considered that a fundamental condition of passenger service would be to minimize walking distance between the (existing) local station and the proposed Transitway platforms.

These two factors combined to yield a new Transitway alignment along Station Gate Road (unopened road allowance north of the existing terminal) and along the north side of Rathburn Road from that point easterly. The Transitway station for inter-regional passengers would be below-grade under Station Gate Road, with pedestrian tunnels linking to the local surface station south of Rathburn Road, and thence to Square One. Local services would continue to use the existing terminal, although the additional platform capacity at the Transitway station could reduce the need to expand the existing surface facility.

The principal advantages of this option compared to the arrangement indicated in the approved Undertaking are the reduced structural and mechanical systems costs by maintaining an open cut section parallel to Rathburn Road and the utilization of the existing City Centre transit terminal to serve local traffic. Accordingly this concept is represents a recommended change under this Addendum submission and was selected as the basis for the revised Transitway scope of work.

2.2.5 City Centre to Renforth Drive

From Station Gate Road, the busway continues to the east in a depressed alignment on the north side of Rathburn Road, under Centre View Drive and Hurontario Street and into the originally proposed busway alignment between Hurontario Street and Cawthra Road.

The originally proposed Hurontario Station is eliminated with the new plan, since the original premises under which it was designed (City Centre employment level of 90,000+

which would exceed the capacity of a single transit station; and Hurontario buses staying in their corridor rather than diverting to connect with other routes at the City Centre terminal) no longer apply. Furthermore, it was a very tight site with difficult access and challenging hydraulic requirements (Cooksville Creek crosses the site) which resulted in a costly and complex station. Under the revised scheme, the property set aside for the station is reserved for a central bus layover area, and for a two-way ramp which connects the Transitway with the City Centre surface street network. These two provisions allow for complete operational flexibility in the City Centre area.

The function and capacity requirements of the planned Cawthra Station have changed since 1992:

- The City of Brampton is focusing on Hurontario Street rather than on Highway 410 for its future “higher order” north-south transit needs. Initially this is via the on-street Acceleride program, which will tie into the City Centre station either at the existing surface station or at the Transitway station.
- Neither the Ministry of Transportation nor the City of Mississauga have plans to grade separate the Cawthra / Eastgate intersection in the foreseeable future.
- Also, the massive City Centre employment figures which would give rise to the need to develop a remote Park & Ride / shuttle type operation using the Cawthra site have diminished.
- Finally, parallel Dixie Road has been defined by Mississauga Transit as the best corridor to serve the substantial employment zones to the north. Mississauga Transit’s current operations in this area are centred along Dixie Road, not Cawthra.

Accordingly, it appeared reasonable to “downsize” the proposal at the Cawthra Station to a simple platform and Park & Ride lot, and to replace the original direct access ramps with a simple new driveway access off Eastgate Parkway. To balance the downsizing of the Cawthra site, a Park & Ride function has been added to the Dixie station. This revised strategy would support the current high transit use in the Dixie corridor and promote the Dixie Station as the major Mississauga Transit terminal in the east section of the Transitway.

From the Cawthra Station to the Renforth Station, the busway follows the same alignment as originally proposed with adjustments where necessary to accommodate development that has occurred since the EA Study in 1992. The stations at Cawthra, Dixie, Tomken and Renforth are provided with local bus platforms. At all other stations the access would be limited to walking, cycling, kiss & ride, and taxis.

To minimize the cost of retaining wall needed on the busway in the Eglinton Corridor, the alignment is moved to one side of the corridor so that a full height wall is only needed on one side. Where possible the profile is also raised.

At the Renforth Station, a single level station replaces the proposed two-level station. The circulation pattern allows all possible bus movements, and an area for use as a bus layover site is designated. As part of separate work related to transit use of the provincial highway system, transit-oriented connections have been developed at a

concept level between the Renforth station and Eglinton Avenue, Highway 427, Highway 401, and the Airport road system. These connections would enhance the effectiveness of the Transitway but are not essential to its success. Their implementation does not fall within the scope of the Mississauga Transitway EA.

2.2.6 Design Standards

The 1992 EA for the Mississauga Transitway was based on the existing conditions and the planning context at the time. The design standards were based on those used in the 1980s for the Ottawa Transitway and reflected a highway-based conservative design philosophy. Subsequent experience in both operating in Ottawa and in constructing new busways in Pittsburgh, Brisbane, and elsewhere have led to a reassessment of Transitway design standards in general, and Mississauga's needs in particular. As a result, several cost-saving design standard changes are incorporated in the new plan:

- i. reduced busway shoulder dimensions;
- ii. station acceleration and deceleration lane lengths; and
- iii. the design standards for station elements.

2.2.7 Value Engineering Analysis

The budget estimate for the project was revised based on the recommended scope changes, revised design standards and the current unit costs of construction. The details of the value engineering analysis are identified in Section 3.7 of the report *Bus Rapid Transit (BRT) – Mississauga Segment Implementation Plan, 2003*.

This “value engineering” cost reassessment has reduced the Guideway costs by \$84 M or approximately 34% largely due to the use of Highway 403 in the Erin Mills - Mavis segment and the reduced tunnel costs in the City Centre component. The station costs have been reduced substantially by \$42 M or 44% as a result of the reduced number of stations assumed and the substantially reduced footprint. The remainder of the cost difference is attributable to the application of the project management, design, and project contingency allowances.

The result is an average cost of \$15.8 M per kilometre over the total project length of 19.2 km, or for a preliminary project cost estimate of just over \$300 M. Adjusting for the 3.2 km BBS section, this results in an average Transitway cost of \$19.0 M/km, which is consistent with experience in constructing similar facilities elsewhere.

2.3 Description of the Addendum Study Area

The proposed changes in the scope of the facility approved under the EA submitted in 1992 are illustrated in Figure 2.1 and Figure 2.2. The Study Area for the Addendum has been limited to those areas where changes from the 1992 alignment are proposed that vary from the Transitway right-of-way identified in the 1992 EA. Many of the proposed changes are considered minor in that they do not deviate from the Transitway right-of-way as identified in the 1992 EA Report, nor would they result in impacts on the Physical, Socio-Cultural, or Economic Environments beyond those addressed in the 1992 EA.

The effects of the proposed changes are localized within the following areas:

- The Parkway Belt West corridor west of the Credit River to Ninth Line;
- The Mississauga City Centre area between the proposed Confederation Parkway and Hurontario Street.

The Addendum Study Area is shown in Figure 2.3.

The conditions existing in the Study Area as of 1992 are identified in the 1992 EA Report, Section 3. Section 4 of this report focuses on those elements of the Study Area that have experienced changes in the subsequent years, and identifies where these changes have occurred.

Figure 2.1– Major Modifications to EA Proposal

Figure 2.2 – Interim and Ultimate BRT Facility: Erin Mills Parkway to Cawthra Road

Figure 2.3 – Addendum Study Area

3 UPDATE OF STUDY AREA CONDITIONS

The conditions existing within the Study Area are similar to those documented in Section 3 of the 1992 EA Document. The following sections will describe changes in the Study Area from those elements identified in the 1992 EA Study as they relate to the Physical Environment, the Socio-Cultural Environment, and the Economic Environment. For ease of reference, the description of the various elements provided in the 1992 submission as it relates to the Addendum Study is repeated in this section. Unless specifically stated, the conditions outlined in the 1992 EA Document are valid today.

3.1 Physical Environment

The physical environment includes both man-made and natural components; the two are described separately.

3.1.1 Built Environment

The following changes to the built environment in the Transitway corridor have occurred (to the end of 2003) since the completion of the EA document in mid-2002.

Highway 403:

- currently being widened in median to provide HOV 2+ lanes between Highway 407 and Highway 401 (to be operational by 2006)
- Highway 407 interchange was constructed; Highway 407 opened as an electronic toll highway
- N-W Winston Churchill entry ramp was reconfigured to eliminate access to 407 West
- N-E bus-only left turn lane was constructed at the south side of Erin Mills Parkway in 1995. It opened to bus traffic in 2004.
- Bus Bypass Shoulders were constructed (including widened Mullet Creek and Credit River structures) between Erin Mills Parkway and Mavis Road in 1994-95 and opened to operation in November 2003.
- Centre View Drive was built from Mavis Road to near Hurontario Street, including reconfiguration of the south half of the Mavis / 403 interchange.
- High Mast Lighting was installed along the north side of Highway 403 from Cawthra Road to Ridgeway Drive.

Arterial Roads

- Erin Mills Parkway was widened to six lanes
- Eastgate Parkway was extended from Dixie Road to north of Eglinton Avenue
- Eglinton Avenue was widened to six lanes from Highway 403 to Etobicoke Creek
- Creekbank Drive was extended to join with Eastgate Parkway at Eglinton Avenue
- Tahoe Boulevard was built to support development in the southeast quadrant of the Eglinton / Eastgate intersection

- Matheson Boulevard was extended over Renforth Drive to a new intersection at Eglinton Avenue

Transit

- City Centre Transit Terminal was built and made operational in mid-1990s
- GO Transit Highway 407 bus service between Hamilton, Mississauga City Centre, Bramalea, and York University was introduced in the year 2000 and expanded in accordance with growing demand
- City of Mississauga transit strategy update (2002) confirmed the roles of Eglinton, Highway 403, Dundas, and Hurontario as high-capacity transit trunk corridors

Utilities Within / Crossing Corridor

All of the utility and pipeline companies involved in the original Environmental Assessment Study were contacted to determine what, if any, changes have occurred to their operations/infrastructure over the past 13 years. The pipeline companies contacted are as follows:

- Imperial Oil (Esso) Sarnia Products Pipeline;
- Sun-Canadian Pipeline;
- Trans-Northern Pipeline;
- Enbridge Pipelines Inc. (fmr Interprovincial Pipelines); and
- Enbridge Consumers Gas.

These pipeline operators have confirmed that their pipeline operations in the corridor have remained relatively unchanged since the original Environmental Assessment.

Both Hydro One and Enersource Hydro Mississauga were also contacted over the course of the EA Addendum Study:

Adjacent Development

South Side

- Prestige industrial development has been completed abutting Highway 403 from Highway 407 to Winston Churchill Boulevard
- Mixed commercial / entertainment uses have been constructed in City Centre area, from Living Arts Drive to City Centre Drive (movie theatre, "big box" retail, restaurants, Playdium)
- Prestige office development is filling in open space east of Eastgate Parkway south of Eglinton Avenue
- Prestige office development is filling in open space south of Eglinton Avenue east of Etobicoke Creek

North Side

- Residential development is currently underway along the north edge of the Parkway Belt between Ridgeway Drive and Winston Churchill Boulevard.
- The open space between Hurontario Street and Central Parkway has been filled in with a mix of residential uses.
- Prestige office development has filled in most of the lots along the north side of Eglinton Avenue between Creekbank Road and Commerce Boulevard
- The Bell Mobility development west of Etobicoke Creek and the commercial property between Satellite Drive and Orbitor Drive have both occupied portions of the proposed 1992 Transitway right-of-way

3.1.2 Natural Environment

The natural environment consists of an area's physiography and soils, watercourses and fisheries, vegetation, and wildlife. There have been no significant changes in the natural environment of the Transitway corridor since filing of the EA document in 1992.

The widening of the Highway 403 structures across the Mullet Creek and Credit River valleys in 1995, the reconstruction of the Highway 403 shoulders between Erin Mills Parkway and Mavis Road, the construction of Eastgate Parkway, and the construction of Centre View Drive all had minor impacts on the natural environment and were subject to the mitigation measures committed to in their respective Environmental Study Reports.

3.2 Socio-Cultural Environment

The socio-cultural environment is comprised of the historic background (manifested in today's heritage resources) and the current communities.

3.2.1 Heritage Resources

There has been no change to the heritage aspect of the Transitway project since the 1992 EA Report. Most of the ground in the corridor has been disturbed by previous development and little of heritage note was identified or uncovered; significant future finds are unlikely.

3.2.2 Communities

The structure of the communities adjacent to the proposed Transitway has been stable and/or consistent with that anticipated in the 1992 submission, with the exception of the shift from employment-based land use plans to residential plans along the north side of the Parkway Belt between Ridgeway Drive and Winston Churchill Boulevard.

Office development in the City Centre area has not proceeded at the pace anticipated in the early 1990s. Some retail / entertainment commercial uses have been established as interim uses between Rathburn Road and Centre View Drive, while beginning in the late 1990s a significant upswing in the number of high-rise condominium developments in the southern half of the City Centre occurred. The new City Centre District Plan reflects this shift from high-density office development towards high-density residential.

3.3 Economic Environment

3.3.1 Population and Employment

The overall City of Mississauga population and employment forecasts provided by the Office for the Greater Toronto Area (OGTA) in 2002 are similar to those used in the 1992 Transitway EA.

However, plans for the Mississauga City Centre have changed substantially since 1992, with an increased emphasis on residential use and recognition that employment patterns would not support the earlier forecast of more than 100,000 jobs in the Centre. Current forecasts are summarized in Table 3.1. These are based on the December 1998 draft City Centre policies and land use designations.

Table 3.1 – Mississauga City Centre Population and Employment Forecasts

	Existing 2003	1992 EA Forecast (OPA 90 – Ultimate)	Current Forecast		
			2011	2021	Capacity
Population	6200	34000	14000	25000	50700
Employment	18200	115000	29500	37500	76100

As discussed in Section 2.1, this change in City Centre land use affects the forecast use of the Transitway, but the future demand remains well above the threshold for Transitway viability.

3.3.2 Land Use Update

The planned land use development within the Addendum Study Area is defined under two major documents:

- o the Official Plan of the City of Mississauga incorporating within it the secondary plans for each neighbourhood; and
- o the Parkway Belt West Plan, which controls the development within the broad corridor used by hydro lines, Highway 403, and several major pipelines.

City of Mississauga Official Plan

Since the approval of the Mississauga Transitway in 1992, the City of Mississauga has updated its Official Plan (OP) twice, in 1996 and again in 2002 / 03. The most recent OP was approved by the Region of Peel on May 5, 2003, with the exception of certain parts where an appeal was requested or where a decision was withheld.

In terms of changes in land use within the Mississauga Transitway EA Addendum Study Area, only the area bounded by Highway 403, Ridgeway Drive, Eglinton Avenue and Ninth Line is affected. In 1992 when the Mississauga Transitway was approved under the EA Act, the area known as **Churchill Meadows** (located between Ninth Line and Winston Churchill Boulevard, and between Highway 403 and Britannia Road West) was identified as residential, with an industrial district south of Eglinton Avenue. In 1996, this industrial district, under the Churchill Meadows Secondary Plan, was divided:

- East of Ridgeway Drive approved as Residential land use; and
- West of Ridgeway Drive approved as Mixed Industrial / Special Commercial land use.

In the most recent OP, the segment west of Ridgeway is designated for General Commercial, Convenience Commercial, Motor Vehicle Commercial, and Business Employment. This designation is currently under appeal at the Ontario Municipal Board.

The City has continued to adjust the **City Centre** plan since 1992. The lands lying between Rathburn Road and Highway 403, from Confederation Parkway to Hurontario Street, for example, have had their designation changed from Office Use (1990 City Centre Plan) to Mixed Use (2003 OP). That shift is not expected to have any material effect on the actual land use, since the Office designation allowed hotels, retail, commercial, housing, and community / recreational uses as well as offices – i.e. very similar to the uses permitted in a Mixed Use zone.

Parkway Belt West Plan

The alignment of the Transitway in the 1992 EA Report, as approved, did not strictly follow the 30m wide “transit” strip initially designated in the Parkway Belt West Plan (Ministry of Municipal Affairs and Housing, 1978). It occupied parts of the utility, highway, and transit strips, but did not conflict with the general intent and function of the Parkway Belt. The Transitway plan was therefore “deemed” by MMAH to be in conformity with the Parkway Belt, but no changes to the Plan per se were undertaken at the time.

By way of PBAM 148 in November 2000, MMAH realigned the Transit and Utility strips within the Parkway Belt to reflect the approved (1992) Transitway plan.

4 UPDATE OF IMPACT ASSESSMENT ANALYSIS

The proposed adjustments to the approved (1992) undertaking will result in somewhat different effects on the environment. This Section summarizes where those effects differ from those identified in the 1992 Environmental Assessment. Section 5 outlines the mitigation measures related to the changes in the Transitway plan.

4.1 Physical Environment

4.1.1 Built Environment

The significant issues in this section are the potential disruption of existing and future roadways and utilities by the implementation of the Transitway on the revised alignment, as compared to the (approved) 1992 alignment. These issues are discussed in the following groupings:

- Highway 403
- City Centre Area
- Eglinton Avenue Corridor
- Stations
- Utilities

4.1.1.1 Highway 403

High Mast Lighting

The MTO, in 2002, constructed a series of High Mast light standards along the north side of Highway 403 between Winston Churchill Boulevard and Hurontario Street. They are shown on the Exhibits in Appendix B. A review of the light pole locations relative to the Transitway alignment revealed that the Transitway lies generally to the north of the light poles. In fact, the highway lighting system will provide “spillover” illumination for much of the Transitway.

There are, however, potential conflicts at several High Mast light pole sites (mainly near interchanges) that will need to be investigated closely at the detail design stage; minor relocations may be required as part of the Transitway implementation work.

Highway 403 Bus Bypass Shoulders (BBS)

In November 2003 the MTO inaugurated use of the paved shoulders of Highway 403 by authorized buses (GO Transit, Mississauga Transit) between Erin Mills Parkway and Mavis Road. This is subject to an Operating Protocol signed by the above agencies along with the Ontario Provincial Police. Key provisions of the Operating Protocol are that:

- the shoulders can only be used by signatory agencies, which commit to training their drivers to the specific requirements of the facility;
- buses are only to use the shoulder during periods of congestion on the general traffic lanes;

- buses are limited to a top speed of 60 km/h, *or* 20 km/h greater than the operating speed of traffic in the adjacent general purpose lane, whichever is least;
- the shoulder remains available to disabled vehicles at all times; buses encountering a stopped vehicle on the shoulder will merge into the general traffic lane and bypass the vehicle.

This type of agreement has precedent in other shoulder operations, and the facility has been operating successfully to date. The presence or absence of the Transitway does not directly affect that Agreement.

Reserved Bus Lanes (RBL)

The BBS between Erin Mills Parkway and Mavis Road is intended to function effectively as an interim transit facility. A decision as to whether to continue with the BBS, upgrade it to a Reserved Bus Lane (RBL), remove buses from the shoulders, or build the separate Transitway is subject to several factors which will evolve over time. Factors include day-to-day operation of the BBS, violation experience, safety, transit demand and usage, the timing of the eastbound bus-only flyover east of Erin Mills Parkway, the availability of funding, and the timing of construction of the separate north side Transitway. The combined effect of these cannot be forecast at this point, and the BBS will continue to be monitored by MTO to ensure its viability. A likely trigger for a decision to upgrade the BBS is the construction of the Transitway link between the Erin Mills Station and Highway 403, including the eastbound bus-only flyover east of Erin Mills Parkway.

This Addendum thus includes protection for the ability to upgrade the BBS to a full RBL when warranted, by adding dedicated emergency breakdown shoulders to Highway 403 between Mullett Creek (the location of the transition ramps between the Transitway and Highway 403) and the Mavis Road interchange and allowing the existing shoulders to function as full-time dedicated bus-only lanes.

The shoulder expansion will cut into the existing berms on either side of Highway 403, but will not affect the berms' overall height. This can be achieved by replacing the current open ditch drainage system by an urban (piped) storm sewer, by constructing toe walls along the base of the berms, shifting the berm slightly, creating steeper slopes on the highway face of the berms, or by some combination of methods. This design decision will be based largely on cost, and will be made at the preliminary design stage.

The shoulder may be discontinuous at the Credit River structure and at the Creditview on-line station, depending on the needs, cost and timing of improvements (for example, if the RBL is intended as a temporary measure prior to construction of the separate Transitway it may not be worth investing in widening the Credit River bridge, whereas if it is determined in the future that buses will be using the RBL as a permanent strategy and that the widening of the Credit structure is a critical item in terms of safety, then a decision would be made on that basis). Therefore, even though there is some uncertainty as to the timing and scope of the RBL project, it is considered part of the Transitway program and is within the scope of this EA Addendum.

At such time as the bus-only flyover east of Erin Mills Parkway is constructed, the BBS between Erin Mills Parkway and Mullett Creek will be superseded and will revert to plain shoulders.

Eastbound Transitway – BBS Link

A fast, reliable link is required to allow eastbound buses on the Transitway to shift to the eastbound Bus Lane on the south side of Highway 403 west of the Credit River. This is a nearly identical to the East Transitway / Road 174 (former Highway 17) link near Blair Station on Ottawa's East Transitway. The solution in this case is very similar – a direct one-way bus-only flyover that allows all Transitway buses to avoid travelling through the Erin Mills interchange. Unlike Ottawa, the ultimate Transitway is on the same side as the Erin Mills station, so the flyover need only provide for one lane plus adequate shoulders to accommodate future maintenance work and to allow a bus to bypass a stopped bus.

The flyover would largely supersede the need for the eastbound bus pass-through and bus link at the Erin Mills / Highway 403 interchange. Most Erin Mills buses and all 403 buses would use the Transitway station and direct link instead. The Highway 403 flyover is needed for the Erin Mills station to function as planned; if eastbound Transitway buses had to divert through the Erin Mills / 403 interchange instead, they would not be able to make use of the Transitway platform.

The flyover in turn would be rendered largely superfluous if and when the separate Transitway is built between Erin Mills and Mavis to the north of Highway 403. However, successful flyover / RBL operation on Highway 403 may defer that time for many years. The flyover is therefore viewed as an appropriate and cost-effective long-term staging alternative to the previously approved separate Transitway segment in that area.

4.1.1.2 City Centre Area

Transitway Alignment

As described in Section 2.2.4, the Transitway alignment through the City Centre is revised from that approved in 1993 in an effort to reduce capital and operating cost (ie by minimizing the length of tunnel section), minimize traffic impact of construction (by shifting it off Rathburn Road), make best use of the existing surface terminal, and preserve developable property.

Hurontario / 403 Interchange

The City is no longer protecting for the extension of the South Service Road (Centre View Drive) across the Hurontario Street / Highway 403 interchange.

Hurontario Station

The original (1992) Transitway plan showed two stations in the City Centre, the need for both being based largely on the anticipated high level of employment (90,000 jobs) and the desire to spread demand over more than one site. With the revised City Centre land use forecasts reflected in this Addendum, it becomes more feasible (and much more desirable from an operational perspective) to focus on a single City Centre station. Furthermore, the Hurontario site is physically constrained and cannot effectively intercept the north-south transit corridor on Hurontario Street in any case. The Hurontario station has therefore been eliminated from the Transitway plan.

Bus layover provisions have been retained at the station site as it offers a convenient access point to the Transitway for both east- and west-bound vehicles. The change in plans yields more flexibility to deal with the Cooksville Creek crossing design.

Centre View Drive

The Transitway will be located between Highway 403 and Centre View Drive between Confederation Parkway and Station Gate Road. Centre View Drive will be shifted to the south between Confederation Parkway and Hurontario Street, so as to retain an adequate offset to Highway 403 to continue to protect for the MTO's ability to widen Highway 403 to the outside by one lane.

Transitway Crossing of Highway 403 at Confederation Parkway

The City of Mississauga is proposing to extend Confederation Parkway over Highway 403 to connect the north and south segments of the roadway. It is intended to have westbound on- and off- ramps between the Parkway and the planned westbound collector roadway north of Highway 403.

Through this area, the original Transitway alignment was to run in a tunnel section under Highway 403 and the Mississauga City Centre. However, the completion of Confederation Parkway across Highway 403 provides the opportunity to bring the Transitway across the highway at much less cost and impact than a tunnel, while retaining the fully grade-separated nature of the Transitway.

Initially, buses operating between the City Centre and the Highway 403 BBS west of Mavis Road will use Centre View Drive in both directions, but once the Confederation Parkway structure is in place, the westbound bus move will be able to occur via a ramp up to the bridge, a bus-only flyover (adjacent to the Parkway lanes and sharing the same foundation), and a bus loop down to a westbound bus lane adjacent to the future North Collector. This route, initially for westbound buses only, will be designed to protect for two-way bus operation for the time when the separate Transitway extends from Mavis to Erin Mills. This configuration is shown in Figure 4.

The Transitway does not depend on the completion of Confederation Parkway; buses may continue to use Centre View Drive in both directions in the interim until a bus-only flyover in the Confederation corridor is used. Nevertheless the intent is to design the Confederation crossing in full recognition of its transit role.

The City is carrying out the Class EA study for the Confederation Parkway / Highway 403 crossing in 2004-05, in preparation for the construction of median piers and footings in Highway 403 as part of the highway widening project currently underway. This early work in the median can occur before the added median lanes on Highway 403 are opened to traffic, thereby significantly reducing the potential impact of future construction on highway traffic. Other than the median works, there is no committed timeframe for either the completion of Confederation Parkway structure or the construction of the Transitway flyover.

Figure 4.1 – Confederation Parkway/Transitway – Highway 403 Overpass

Reserved Bus Lane on Centre View Drive

Centre View Drive, extending from Mississauga Road to City Centre Drive along the south side of Highway 403, is a five-lane roadway (3 eastbound, 2 westbound) that forms an important link between the eastbound Highway 403 Bus Lane west of Mavis and the proposed City Centre inter-regional bus terminal near Square One.

The proposal is to convert the leftmost of the three eastbound lanes to a bus-only lane for a distance of approximately 600m on the approach the bus-only left turn lane near Confederation Parkway, where buses would leave Centre View Drive to enter the City Centre segment of the Transitway. Turning buses would have signal priority at the Living Arts / Centre View intersection.

Centre View Drive itself will be shifted slightly southward in the vicinity of Confederation Parkway in order to accommodate the Transitway ramp at Confederation.

Alignment Through Mississauga City Centre

Discussions with the affected land owner (Oxford Properties) have led to a City Centre Station design that will both accommodate the necessary vehicular and pedestrian amenities while minimizing impact on developable land. As described in Section 2.2.4, the Transitway and station will be located almost entirely within the Station Gate Road right-of-way with limited encroachment onto private property on the east side of Station Gate Road. The Transitway remains below grade in order to facilitate surface access for people and vehicles to and between adjacent properties.

Proposed City Centre Area Roadworks

The proposed Duke of York Boulevard extension across Highway 403 and the North Collector Roadway are not part of the Mississauga Transitway project. Those municipal roads will be subject to separate Class Environmental Assessment Studies at such time as they are initiated by the City.

4.1.1.3 Eglinton Avenue Corridor

There are no significant changes proposed to the Transitway plan in the Airport Corporate Centre area (along Eglinton Avenue from Eastgate to Rathburn); the proposed stations are smaller and less costly, but in the same locations as previously approved and equally capable of being integrated with nearby commercial developments.

The bus-only ramp between Eastgate Parkway to the Transitway as proposed in 1992 has been eliminated, but bus access to the Eglinton Avenue corridor has been maintained at the Renforth station and via a ramp at Tahoe Drive.

4.1.1.4 Stations

The proposed changes to each station are identified in Appendix A. The related background is outlined below.

Ridgeway Drive / Ridgeway Station

The proposed extension of Ridgeway Drive across Highway 403 is not included as part of the Mississauga Transitway Environmental Assessment Addendum and will be subject to its own Municipal Class Environmental Assessment Study. The Transitway station

proposed at Ridgeway would not be implemented prior to the completion of Ridgeway Drive across Highway 403.

Winston Churchill Station

The current proposal indicates a redesign of the Winston Churchill Station site to reflect the realignment of the Transitway from the north side of the site to the south side. The station entry road is located opposite the E-N/S ramp terminal, as before.

Erin Mills Station

The current proposal redesigns the Erin Mills station to provide a parking area, in recognition of the demand for parking that is anticipated there. This stems in large part from the shift towards a stronger inter-regional (i.e. GO Transit) role for the station from the Mississauga-oriented facility proposed in 1992. While Mississauga Transit will continue to minimize parking needs by providing neighbourhood-to-workplace service, inter-regional services such as those provided by GO Transit traditionally rely on Park & Ride for a significant part of their demand.

The revised station plan shows an initial 200-space parking lot with room for potential future expansion within the Hydro corridor.

Creditview Station

The 1992 Transitway plan has a station at Creditview Road, to allow passengers to transfer between Creditview buses and Transitway services. Protection is made for a local bus platform, a passenger drop-off area, a bus ramp between the Transitway and Creditview, Transitway platforms, and a pedestrian bridge over the Transitway.

This Addendum proposal involves operating buses on Highway 403 shoulders / reserved lanes for the foreseeable future and cannot make use of the ultimate north side station, at least in the eastbound direction. Interim station provisions are therefore being protected for along Highway 403 at Creditview Road. At such time as the transit operating strategy triggers the need for a bus stop at Creditview, the City and transit operators will work with MTO to develop a suitable station design.

The design and configuration of the station will depend on its timing relative to the ultimate north side Transitway, the anticipated demand for passenger service, the transit operating plan, Highway 403 operational and safety requirements, capital cost, and funding availability.

Mavis Station

The proposed Mavis Station (1992) is deleted in the updated plan.

For the foreseeable future, Transitway services will use the BBS on Highway 403; eastbound buses on the south side of Highway 403 can not therefore use an off-line station on the north side of the highway. There being no plans to shift off the BBS for many years, if ever, a Mavis station would only be held out as a long-term prospect and could not be "built up" in the interim.

Furthermore, an operational review confirmed that the long-term strategy for transit service on Mavis Road would always focus on the City Centre station, where passengers can access the surrounding area and make a single transfer to Transitway routes. Operationally, it would be inefficient to have all east-west services stop at a Mavis Road

station when the vast majority of Mavis Road passengers would not want to transfer buses to just go one stop easterly to the City Centre.

Finally, the Mavis station site is not designed for Park & Ride function. Given all these factors, the costs to construct an additional station at the Mavis Road interchange can not be justified, and there is little apparent need for it in the foreseeable future.

Cawthra Station

The updated Transitway proposal reduces the scale of the proposed Cawthra Station and eliminates the set of direct access roadways and structures for the Park & Ride lot in favour of a simple signalized intersection on Eastgate Parkway. The direct ramps are no longer needed in light of the lower traffic volume generated by the site and the agreement between the City and the MTO that protection for the grade separation of Eastgate Parkway / Cawthra Road intersection is no longer necessary.

4.1.1.5 Utilities

The original (1992) Transitway plan required considerable pipeline relocation work. By shifting the Transitway south in the western end and reducing the scale of the western stations, the need to relocate or modify the pipelines in that area was reduced or eliminated in most cases. East of Cawthra Road the Transitway maintains the same alignment as in 1992 and thus opportunities to reduce the impact to pipelines throughout that segment were limited.

The following table highlights the changes to the alignment (sorted by station location) as they relate to pipelines in the corridor.

Table 4.1 – Updated Utility Impacts

Station	Impact of Station Changes on Utilities
Ridgeway	Station shifted to east side of Ridgeway. Station and Transitway alignment shifted to south side of corridor; avoids SPPL relocation. Access road to cross EPL and CGPL at grade; no need for lowering / relocation.
Winston Churchill	Station and Transitway alignment shifted to south side of corridor; avoids major impact on SPPL and SCPL. Bus turning loop requires short relocation / lowering of EPL and CGPL. Access road crosses all pipelines at grade, but likely to require short lowering of EPL and CGPL (therefore similar cost as for Erin Mills station). Parking lot layout will respect the location and protection requirements of hydro-electric towers.
Glen Erin	No change in access ramp. Short lowering needed for EPL and CGPL.
Erin Mills	No significant change in terms of pipeline impact. Parking lot layout will respect the location and protection requirements of hydro-electric towers.
Mississauga	Transitway deleted through this area; buses operate on Highway 403 shoulders.
Creditview	Transitway deleted through this area; buses operate on Highway 403 shoulders.
Mavis	Station deleted. Localized relocation of EPL and CGPL likely required in vicinity of WB Transitway / 403 E-N/S ramp grade separation.
Confederation	New WB bus loop will require localized lowering of EPL and CGPL. Grade separations of new Confederation Parkway N/S-W and E-N/S ramps with the WB Transitway may require localized relocation.
Cawthra	Station redesigned. Localized lowering of CGPL may be required for Transitway bus access road. Parking lot layout will respect the location and protection requirements of hydro-electric towers.
Tomken	Station redesigned. Localized lowering of all eight pipelines will still be required at Transitway bus access road, plus relocation of SCPL, TNPL, and EPL.
Dixie	Station redesigned. Relocation of EPL and CGPL still required through station area (length decreased from 1992 layout).
Fieldgate	No change in Transitway alignment or grade at the Fieldgate crossing.

Notes: SPPL = Imperial Oil (Esso) Sarnia Products Pipe Line
 SCPL = Sun Canadian Pipe Line
 TNPL = Trans Northern Pipe Line Incorporated
 EPL = Enbridge Pipe Line Incorporated (former Inter-Provincial Pipe Line)
 CGPL = Enbridge Consumers Gas Pipe Line

It should be noted that Enersource Hydro Mississauga has expressed an interest in installing an overhead hydro pole line in parts of the corridor, adjacent to the Transitway.

4.1.2 Natural Environment

The potential effect of the implementation and operation of the Transitway on the natural environment in the Study Area remains substantially unchanged from the implications documented previously. There are two areas where the Addendum proposes a significant reduction in the impact on natural environmental features:

- Shift alignment to minimize impact on woodlot east of Hurontario Street; and
- Defer, for the foreseeable future, construction of the Transitway across the Mullett Creek and Credit River valleys, and use Highway 403 instead.

The proposed realignment of the Transitway between Hurontario Street and Central Parkway, whereby the Transitway would shift closer to Highway 403 than planned in 1992 (due to the subsequent elimination of the need to protect for the extension of the South Service Road east of Hurontario Street) will significantly reduce the impact of the project on the woodlot in that area. The impact had been a major item of public concern throughout the Transitway planning process in the early 1990s.

Given the planned use of the existing Bus Bypass Shoulders (BBS) in the section between Erin Mills Parkway and Mavis Road for the foreseeable future, the proposed revisions defer to a later date the forecast impacts of the new separate roadway on the Credit River and Mullett Creek valleys indicated in the 1992 submission.

4.2 Socio-Cultural Environment

4.2.1 Heritage Resources

The impact of the proposed Transitway would not result in any impact on Heritage Resources beyond those identified in the 1992 EA Report.

4.2.2 Communities

The shift of the Transitway alignment from the north side of the Hydro Corridor to the south side west of Erin Mills Parkway will reduce the impact on the neighbouring residential communities. The residences will experience less noise due to the increased separation, and visual intrusion would be less likely due to the Transitway being depressed alongside / at grade with Highway 403.

East of Erin Mills Parkway, the proposed direct ramp to the Highway 403 BBS eastbound would extend south beyond Highway 403. The possible increase in noise and visual intrusion to the residences on the southern side of the Highway 403 was considered. Detailed noise analysis demonstrated that the introduction of the eastbound flyover will have no significant impact (<0.5 dBA on a 24 hour basis) on south side properties between Erin Mills and Mullett Creek. The main source of noise in that part of the corridor is general traffic on Highway 403.

The City has committed to screening the view of the flyover from adjacent south side homes.

Considerations related to air quality, property values, construction disruption, vibration and safety remain unchanged from the 1992 assessment.

4.3 Economic Environment

The proposed revisions to the Transitway described in this Addendum continue to support and complement the economic policies of the City and remain consistent with the predicted implications outlined in the 1992 submission.

4.3.1 Parkway Belt West Plan

As described in Section 2.2.2, it is proposed to relocate the Transitway alignment from Winston Churchill Boulevard westerly to Ridgeway Drive proposed to run south of the Hydro corridor adjacent to Highway 403, in much the same manner as the plans for the Winston Churchill – Erin Mills segment.

The Parkway Belt West Plan (1978) has a continuous 100' (30m) "Inter-urban Transit Corridor" designated along the north side of the Hydro right-of-way from the Credit River westerly. A change in that designation was agreed to by the Ministry of Municipal Affairs and Housing in 1992 through the original EA process, and the Plan was formally amended in 2000 to reflect the Transitway alignment, whereby the "utility" and "transit" corridors were swapped from Winston Churchill to the Credit River.

The current proposal is to extend the Transitway west of Winston Churchill along the same lines as it is to the east; this will in turn require an equivalent shift in the westerly segment of the Parkway Belt West Plan. The Transit corridor would shift to sit between the Hydro and Highway corridors, and the Utility designation currently there would shift to the northern edge of the Parkway Belt. The arrangement would therefore be consistent with that now in place between Erin Mills Parkway and the Credit River.

5 ENVIRONMENTAL EFFECTS AND COMMITMENTS TO MITIGATION

This Section addresses only those aspects of the project that have changed since the 1992 EA Report. Areas where improvements are proposed (i.e. resulting in reduced requirements for mitigation) are touched on briefly; the focus is rather on aspects where new or additional commitments to mitigation are required. The characteristics of the proposed stations under both the 1992 and current plans are identified in Appendix A.

Where not discussed below, the impacts due to the Transitway and the associated commitments to mitigation are considered to have remained unchanged from those outlined in Section 1.6 of the 1992 EA Report. The Transitway has not been constructed in the intervening period, and hence mitigation measures have not been triggered. When the project proceeds to detail design and implementation, reference will continue to be made to the 1992 commitments and the Conditions of Approval defined by MOE in their Notice of Approval to Proceed dated July 6, 1993, supplemented as appropriate by those in the current Addendum report.

5.1 Built Environment

5.1.1 Highway 403

Bus Bypass Shoulder Operation (Erin Mills – Mavis)

As agreed to in the BBS operating agreement, signed by MTO, Mississauga, GO, and OPP, the BBS will continue to be monitored and the operating practices adjusted to reflect any change in safety or function.

Reserved Bus Lane (Mullett Creek – Mavis)

The current BBS and operating protocol may prove inadequate for a long-term or permanent transit operation of the scale proposed in the 403 corridor. In particular, the speed restriction and the potential presence of other (stopped) vehicles on the shoulder, when married with a high volume of buses (current use is less than 15 buses per peak period) poses operational constraints and safety risks that are inconsistent with the rest of the Transitway program. Even if the BBS speed restriction were to be raised to 80km/h or 100 km/h, the operating conditions would remain a significant concern of both the MTO and the OPP.

While the separate Transitway north of Highway 403 remains approved and thus protected for the long term, it is the City's position that converting the BBS operation to a Reserved Bus Lane may be a viable, cost-effective medium-to-long term strategy. This can be accomplished by adding a full shoulder to the outside of Highway 403 between Mullett Creek and the Mavis Road ramps. Shoulder widening (similar to the RBL on Highway 417 West in Ottawa) will reduce the risk of conflict between buses and disabled vehicles, thereby eliminating the restrictions currently placed on bus speed and BBS use.

RBL construction would affect drainage, berms, guiderails, overpass treatments (Mississauga Road, CP / SL&H Rail, Creditview Road), and potentially the Credit River and / or Mullett Creek bridges. The conversion to RBL from BBS would not result in any visual impact or noise impact on adjacent residents – the highway shoulders can not be seen from nearby homes, and there is no discernable difference in transit-generated

noise levels whether the buses are operating on the shoulder, in a bus lane, or in general traffic lanes. It will have no effect on traffic flow, Highway 403 operations, or air quality, since the number of buses on the highway and their location will not change.

Construction activity would utilize the existing shoulder and will reflect MTO requirements for maintenance of traffic throughput on Highway 403. The BBS would be temporarily unavailable to buses during the construction period. BBS / RBL operations may also be suspended during future maintenance / rehabilitation periods

Transitway – Highway 403 Connections East of Erin Mills Parkway

Implementation of the direct ramps from the Transitway to the eastbound Highway 403 BBS and from the westbound Highway 403 BBS to the Transitway would result in temporary lane closures on the Highway during construction. All construction activity will be subject to MTO approval and will follow requirements for traffic management, safety, and capacity. The same impacts apply if the Highway 403 buses operate in an RBL rather than the BBS.

Considerable concern was expressed by residents to the south-east of the Highway 403/Erin Mills Parkway due to the proposal to construct the flyover. The residents feel that the existing noise produced by Highway 403 is high, and perceive that an additional ramp would result in more noise. As a result, this area was subject to a detailed noise analysis examining two possible scenarios:

- 2015 traffic volumes without the BRT flyover; and
- 2015 traffic volumes with the BRT flyover;

These estimated noise levels produced under these scenarios was then compared to the existing (2005) calculated Highway 403 noise levels to determine the effects of the flyover. Future forecasts were calculated for the year 2015 as it is ten years after the completion of highway construction in the corridor. The analysis indicated that the additional noise produced by separating buses from general traffic via a bus-only flyover would be imperceptible to the human ear. A summary of the analysis is provided in Appendix C.

Some residents also expressed concern about the flyover's visual impact, even though a high earth berm, supplemented in some areas by a 5m high noise wall, is located between the site of the proposed flyover and residences to the south of Highway 403. As a consequence, the flyover cannot be seen from homes or back yards south of 403. However, the top of a bus on the flyover could be visible from some second-storey windows, therefore the City will add a visual screen to the top of the berm in the affected area to ensure that the flyover and buses using it is not visible from the second storey of any house backing onto the Highway 403 corridor in the immediate vicinity of the flyover.

It should be noted that a noise wall exists along the crest of the berm immediately east of Erin Mills Parkway and immediately west of Mullett Creek, and the former would provide adequate visual screening to the residents of the western end of the residential development. The proposed location of the visual screen is illustrated in Figure 5.1. No concerns about the flyover were expressed by residents to the north, as the proposed flyover defers the construction of the Transitway north of Highway 403.

Figure 5.1 – Transitway Flyover at Erin Mills Parkway

High Mast Lighting

Where conflicts between the Transitway and existing High Mast light pole sites (mainly near interchanges) occur, the City will investigate alternatives at the detail design stage and incorporate any relocations that may be required within the Transitway implementation work.

5.1.2 Transitway Stations

The updated Transitway proposal removes selected stations from the 1992 plan and reduces the scale of others. The impacts of these stations on the built, natural, and socio-cultural environments identified in the 1992 Environmental Assessment Study have been reduced accordingly.

As in the 1992 EA, the Transitway stations were developed to a functional level of detail. This established the feasibility of the stations and the required property envelope to implement the desired features. Refinement to these plans will be completed during the detail design phase, and will be subject to structural and architectural design. However, the stations will be constructed within the property envelopes identified in this study.

Winston Churchill

The impact of the Winston Churchill station redesign on the surroundings is negligible, as the noise generated by passing buses on the Transitway is shifted farther away from north-side homes, but it is replaced during peak periods by the traffic on the Park & Ride lot entry road which is shifted slightly closer. The net impact is not significant, and all the commitments to mitigation defined in the 1992 EA Report remain in effect.

The introduction of the station entrance opposite the E-N/S Highway 403 ramp terminal will affect traffic operations at that signalized intersection. The initial (2006) impact would be a slight increase in overall delay at the intersection during peak periods. As background traffic grows during the subsequent decade, congestion will reach a point where geometric improvements will be needed. Either a double right turn lane or a channelized right turn for the E-N/S move will be needed, as will eventually a three-lane northbound approach on Winston Churchill. With those improvements, the intersection is capable of operating at an acceptable Level of Service to 2014 and beyond.

Erin Mills

The only significant impact of the revised plan at Erin Mills is the additional traffic load generated by the parking lot on the Highway 403 E-N/S Ramp / Erin Mills Parkway intersection during peak periods. As with the Winston Churchill site, some intersection capacity improvements will be needed over the coming decade in order to maintain an acceptable Level of Service at the intersection and to minimize the risk of queues extending down the E-N/S ramp to the highway. Either a double right turn lane or a channelized right turn for the E-N/S move will be needed, and a double left turn exit from the parking lot will minimize the time taken out of the signal cycle for that move.

The reconfigured parking lot fits within the overall station property envelope outlined in 1992, and the proposed barrier along the north side of the Parkway Belt would continue to block the views to/from nearby homes. The potential for subsequent lot expansion will be directly related to the future capacity of the access / egress arrangements at Erin

Mills Parkway, which in turn will depend on the traffic characteristics of the intersection at that time.

Creditview

The site of the proposed on-line station is relatively protected from adjacent homes by the highway being in cut at that point, the presence of earth berms / vegetation on either side of the highway, and the width of the Parkway Belt, so it is not anticipated that significant environmental impacts would occur (noting that the Creditview station on the north side Transitway was approved as part of the original EA in 1992).

As an interim measure, the Creditview Station will be smaller in scale, have less noise impact, and affect less property than the approved 1992 plans. It may affect traffic operations on Creditview Road to a greater extent. Grade-separated pedestrian road crossings will be provided to ensure safety. Safety of the bus stops on the Highway 403 shoulders will be a paramount consideration during the detail design stage; pedestrian access to Highway 403 will be physically prevented.

If and when a Highway 403 bus stop at Creditview Road is developed, the City will consult with the nearby community as part of the planning and design process.

Mavis

The deletion of the Mavis station from the recommended plan reduces the capital cost of the Transitway as a whole, improves Transitway operations, reduces traffic operational impact on the Mavis / 403 interchange, and reduces potential future noise and visual impact on adjacent residential properties. No additional mitigation measures (over and above those identified in the 1992 EA) are proposed.

Cawthra

At the Cawthra station site, the Eastgate Parkway access will be signalized if necessary, and signal timing will be co-ordinated with the nearby Cawthra Road light. No new mitigation measures are proposed.

5.1.3 Mississauga City Centre Area

Transitway Alignment

The impact of the current proposal in the City Centre relative to the Transitway plan approved in 1993 is generally positive. The Transitway functions are preserved, but in a property envelope that is significantly smaller and considerably less costly and complex than originally proposed. There will be much less disruption to traffic flow along Rathburn Road during construction, and the elimination of the tunnel under Highway 403 greatly simplifies the construction challenges in that area. The reduction in scale of the below-grade segment of the Transitway will yield significant benefits in terms of ongoing operating and maintenance expenses.

The re-alignment of the Transitway and relocation of the City Centre Station within the City Centre would result in disruption to local traffic patterns during the construction period, primarily along Centre View Drive. Detours would be required through the duration of the construction; however, there exist feasible alternative routes for local traffic.

City Centre Station

The northerly shift of the proposed City Centre station and the elimination of the Hurontario Station will produce a slight increase in overall average walk distance among transit users either transferring between local and through services or walking between the station and local destinations. The Transitway station will have an influence on the evolution of the land use pattern in the City Centre, and user walking / access patterns will develop in a way that reflects the station location.

As redevelopment occurs, pedestrian activity will increase between the properties north and south of Rathburn Road. The inclusion of a new gateway transit terminal along Station Gate Road could also result in an increase of pedestrian activity between the Transitway station and the existing local terminal. Pedestrian crossings would be provided at the Transitway terminal and underground pedestrian tunnels would provide access to the local terminal/Square One to enhance access across Rathburn Road.

The proposed station will affect the layout and operation of future Station Gate Road, but the roadway will continue to be available to general traffic. Bus operations that currently affect Rathburn Road will be removed to the side street. Parking lot access will be maintained to adjacent properties (currently Playdium and SportChek / Chapters).

Confederation Parkway

The Transitway loop at Confederation Parkway lies closer to the homes lining the north edge of the Parkway Belt than the plan approved in 1993. Potential noise and visual impacts were analyzed to determine the effects of the Transitway on the neighbourhood. In the future, the main external noise sources for north side homes will be Highway 403, Confederation Parkway, the North Collector, and the Transitway. Given that all but Highway 403 are future roadways and the timing of each is not defined, a number of possible future scenarios were investigated to determine the effects of the Transitway in the vicinity of Confederation Parkway.

Future forecasts were calculated for the year 2017 – ten years after the estimated completion of the Confederation Parkway overpass. The scenarios were:

- 2007 traffic volumes on Confederation Parkway and Highway 403 (“existing” base case)
- 2017 traffic volumes on Confederation Parkway and Highway 403 (possible future base case #1);
- 2017 traffic volumes on Confederation Parkway, Highway 403, and the North Collector Roadway (possible future base case #2);
- 2017 traffic volumes on Confederation Parkway, Highway 403, and the Transitway (base case #1 + Transitway); and
- 2017 traffic volumes on Confederation Parkway, Highway 403, the North Collector Roadway, and the Transitway (base case #2 + Transitway).

Calculations were also performed with and without a 2.4m high noise wall along the south property line of houses on Harrowsmith Drive.

The results (see Appendix C) show that over the ten-year period to 2017 residents would experience an increase in noise of approximately 1.5 dBA (Leq16), depending on

the scenario. This brings the total 16-hour noise level to an estimated 65.3 dBA in the worst case. Of this increase, only 0.3dBA can be attributed to the Transitway itself. The rest comes from traffic growth on 403 and Confederation and from the introduction of the North Collector. This increase is well within the 5dBA threshold defined by the Ministry of the Environment Noise Criteria as triggering the need for mitigation, so the Transitway plan does not require further noise mitigation in this area.

Nevertheless, the City, in recognition of the cumulative effect of the various road and transit projects in this area, intends to build a wall along the north edge of the Parkway Belt for some distance east of Confederation Parkway. The specific length and height will be determined in detail design, to reflect sight lines, noise mitigation effectiveness, and cost. This barrier would provide significant mitigation not only of bus-generated noise, but also of general traffic noise from Highway 403 and Confederation Parkway, reducing the 16-hour noise level by a minimum of 2.4 dBA. It would also function as a visual screen, blocking the view of the bus loop and Confederation Parkway from back yards.

Centre View Drive

The proposed eastbound bus lane on Centre View Drive involves no widening or physical change in the roadway, and simply formalizes the bus use of the road in a dedicated lane where the risk of interference with other traffic is minimized. The remaining two eastbound lanes have ample capacity to accommodate the current and future auto demand (noting that the westbound roadway also has two lanes).

Hurontario / 403 Interchange

Although not strictly related to the Transitway, the elimination of the protection for the extension of Centre View Drive across the Hurontario interchange removes some of the geometric and operational concerns of MTO at that location. It also allows the shift of the Transitway farther away from noise-sensitive residential areas and a significant woodlot. The elimination of the South Service Road link and South Collector does, however, eliminate some bus-only staging options and advances the need for the full Transitway between Centre View Drive and Cawthra Road.

5.1.4 Eglinton Avenue Corridor / Airport Corporate Centre

As described in Section 4.1.1.3, the Transitway plan from 1992 has undergone only minor changes as part of the update. Property impact at stations and along the alignment has been reduced through the redesign, and the elimination of the bus ramp at Eastgate Parkway (now Creekbank Road) eliminates any potential impact on traffic operations at its intersection with Eglinton Avenue.

5.1.5 Utilities

As outlined in Section 4.1.1.5, the re-alignment of the Transitway would result in fewer impacts to the existing utilities operating in the corridor, largely due to the reduction in the number of stations, the reconfiguration of others, and the shift of the Transitway in the western end closer to Highway 403. The City will continue to consult with the various pipeline companies operating in the Parkway Belt West regarding the Transitway project as it proceeds through the planning and design process, per the commitments made in the 1992 EA Report.

5.2 Natural Environment

5.2.1 Watercourses

The Transitway crosses several watercourses, the most significant of which are:

- Mullett Creek
- Credit River
- Cooksville Creek
- Etobicoke Creek

In the 1992 EA, effects and commitments to mitigation were summarized as follows (excerpted from Table 52, p. 287):

Environmentally Significant Area / Issue	Concerned Agency	Effect of Transitway	Mitigation Measures	Commitment to Future Work
Creek crossings and realignment; erosion and sedimentation in streams; conflict between fish migration and construction activities; potential impact of roadway drainage; salt runoff from roadway; degradation of fish habitat; changes to hydraulic characteristics of watercourses	MNR MOE CVCA MTRCA	Possible stream sensitivity to sedimentation and erosion; hydraulic design of possible realigned channel sensitive to future upstream development; increased runoff and salt spray expected; possible hydraulic changes to watercourse due to new crossing structures	MNR/CVCA/MTRCA permits required for any floodplain activity; direct bridge runoff away from stream; use standard MTO erosion / sediment control at creek crossing areas; install and maintain silt fence protection until site stabilized; apply CVCA/MNR Sediment Control Guidelines (1990)	Proper work scheduling and continued review with concerned agencies regarding construction procedures and transitway developments; prepare comprehensive stormwater management design during detailed design stage; develop drainage plan using principles of no net loss of fisheries habitat, no degradation of stream hydrology, and no negative impacts on watercourses.

The principles articulated in 1992 (and approved in 1993) continue to guide the project. However, several regulatory and jurisdictional changes have occurred since that time, and these need to be reflected as the project moves forward.

Specific concerns of the Credit Valley Conservation Authority, as discussed in meetings and spelled out in their letter of June 28, 2004, are:

- Clear identification of changes to the original EA and their impacts and mitigative measures;
- Identify measures to overcome the challenges related to flooding, erosion, and fish habitat at the crossing of Cooksville Creek; and

- Updating of the Storm Water Management strategy to reflect current quality and quantity control measures.

The last point was echoed by the Toronto Region Conservation Authority, which has jurisdiction over the eastern part of the study area (Etobicoke Creek watershed).

Thus, even though the current Transitway plan, as amended, would either defer impact at watercourse crossings for many years (Mullett, Credit) or have no significant change from what was previously approved (Cooksville, Etobicoke), the City is committed to respecting the permit requirements in place at the time of future construction, not simply the time of EA approval.

The most critical crossing is that of Cooksville Creek immediately west of Hurontario Street. Since the Transitway is proposed to be essentially at the grade of the Creek at that point (in order to pass under the adjacent roadways), a variety of alternatives were investigated in 1990 as part of the Transitway EA study. The subsequent deletion of the Hurontario station has eased, but not eliminated, the conflict at that location (see Fig. 5.2).

Although it is a challenging site, several design options do exist, each with tradeoffs and impacts. Since it would take a significant level of detailed design and analytic work to develop the preferred alternative, and the timing of Transitway construction remains uncertain, it is premature to carry out that detailed work at this time. This position recognizes that issues and constraints related to Cooksville Creek and the Transitway continue to evolve, and any design work done now would be at risk of being superseded by some future development.

Thus no specific design recommendations were included in the 1992 EA report, and although the City has subsequently investigated alternatives in order to prove their feasibility in terms of grade and capacity, the definition of a preferred alternative remains premature. The City remains committed to working with the stakeholders (CVC, MNR, MOE, MTO) at the time of Preliminary and Detail Design to develop a solution that addresses all parties' needs and meets all regulatory requirements.

It is recognized that there are several issues that will have to be addressed to ensure that any realignment of Cooksville Creek will not cause adverse impacts to existing flooding, channel stability, water quality and fish habitat conditions. If realignment is not possible to satisfy these conditions, other options up to and including Transitway realignment will be examined.

Since completion of the original EA, several studies have been undertaken to investigate the conditions of Cooksville Creek including:

- the *Cooksville Creek Floodline Mapping Study* (RVA, 1996),
- the *Cooksville Creek Rehabilitation Study* (1997),
- the *Cooksville Creek Flood Remediation Plan* (Environmental Resources Group, 2002), and
- the most recent study entitled *Special Policy Area Study for the Cooksville Creek Floodplain* (Philips Engineering for the City of Mississauga, Interim Report #2, Oct. 31, 2002).

The understanding that has been gained with respect to the sensitivity of Cooksville Creek through various cause and effect assessments will be valuable as input to the development of alternatives at the Transitway crossing.

Upstream of Highway 403 to Eglinton Avenue West, there are four buildings located within the Regional floodline. In addition, spill of floodwaters during the Regional event has been identified at Highway 403 and Hurontario Street (areas where floodwaters are not contained or confined to the floodplain). Thus, it will be important that no increases in flood elevations occur as a result of the proposed realignment.

Additional commitments to future work are:

- Undertake a detailed hydraulic impact assessment utilizing the latest hydraulic models from the CVC as well as a dynamic hydraulic model if required to confirm requirements for crossing structure sizes, channel conveyance requirements, flood flow conveyance requirements, and flood storage requirements to be incorporated into any realignment design;
- Undertake additional hydraulic, fluvial geomorphology and fish habitat assessments to determine the appropriate channel profile, alignment, cross-sections, erosion protection measures, and fish habitat enhancement and migration features;
- Develop a stormwater management plan to provide water quality enhancement and flow control storage if required of runoff from impervious areas draining to Cooksville Creek within the study area in accordance with CVC's *Stormwater Management Guidelines* (1996) and confirm requirements with the CVC;
- Develop a comprehensive sediment and erosion control plan with detailed staging and contingency plans with appropriate detail to address the sensitivity of the study area; and
- Develop a monitoring and maintenance program for any realigned segment of Cooksville Creek to be carried out following construction, which outlines requirements and procedures for repair, mitigation and enhancement activities.

Figure 5.2 – Cooksville Creek

5.2.2 Vegetation

There are no areas in which the revised plan has a more significant impact on vegetation than the approved EA plan. The segment between Hurontario Street and Cawthra Road has been redesigned to reduce impact on the existing woodlot. No additional commitments to mitigation are required with respect to vegetation.

5.3 Socio-Cultural Environment

5.3.1 Noise

As discussed in Section 4, in locations where the updated plan produces a different noise impact than the plan previously approved, that impact is either reduced or has a negligible / insignificant increase. There are no additional noise mitigation requirements or commitments as a result.

5.3.2 Visibility

There are two areas where the Transitway as amended would be more visible to residents than in 1992:

- the eastbound bus-only flyover between Erin Mills Parkway and Mullett Creek; and
- the bus loop ramp in the northeast quadrant of the future Confederation Parkway / Highway 403 interchange.

At Erin Mills, the City has committed to installing a visual screen on the top of the existing berm along the south side of Highway 403, so that a bus on the flyover cannot be seen from the second-storey windows of south side homes along Folkway Drive, Trapper Court, and Sawmill Valley Drive. The flyover is approximately 250m away from the nearest north side home, separated by Highway 403 and a hydro corridor; its view to/from north-side properties was not identified as a significant issue during the public review process.

At Confederation Parkway, the existing wall separating north side homes from the hydro corridor will be raised as necessary such that the proposed bus loop will not be visible from residential back yards.

5.4 Planning Environment

5.4.1 Parkway Belt West Plan

The Ministry of Municipal Affairs and Housing is responsible for the administration of the Parkway Belt West, through which the Transitway alignment runs (from Fieldgate Drive to west of Ridgeway Drive). The Parkway Belt West Plan contains four continuous corridors for the following uses:

- Public Open Space and Buffer Area;
- Utility;
- Electric Power Facility; and
- Inter-Urban Transit.

The "Inter-Urban Transit" corridor has been realigned (via PBAM 148 in 2000) to reflect the Transitway alignment as approved in 1993. The proposed revised alignment of the Transitway in the Winston Churchill-Ridgeway area will require a further amendment to the Parkway Belt West Plan.

The Ministry of Municipal Affairs and Housing, in a letter to the City of Mississauga dated March 1st, 2004, notes that "realigning these continuous designations within the Public Use Area would still be consistent with the Provincial Plan if the continuous nature of these designations is not compromised.

Since the revised Transitway alignment from Winston Churchill westerly would not affect the location of existing pipelines and would avoid the electric power corridor, the continuous nature of those corridors will be preserved and the Parkway Belt Plan will not be compromised.

6 CONSULTATION PROGRAM

A key feature of the Environmental Assessment process is its requirement that the proponent consult with all parties known to be affected by the undertaking. This includes both Technical Agencies that would experience any change in operations due to the study outcome, and those residents who live within/adjacent to the Study Area. Any person/organization with an interest in the project is given the opportunity to provide input or concern in order to determine a mutually acceptable, environmentally sound solution.

6.1 Technical Agencies

The 1992 Environmental Assessment study involved a detailed consultation process through which a number of Technical Agencies were invited to participate:

Technical Coordinating Committee

- City of Mississauga
 - Transportation and Works Department
 - Planning and Development Department
- Mississauga Transit
- Ministry of Transportation
- Region of Peel
- City of Toronto
- GO Transit

External Agencies

- Ministry of Municipal Affairs and Housing
- Ministry of the Environment
- Ministry of Government Services
- Ministry of Natural Resources
- Credit Valley Conservation Authority
- (Metro) Toronto Region Conservation Authority
- Region of Halton
- City of Brampton
- Town of Oakville
- Toronto Transit Commission
- Transport Canada (Lester B. Pearson International Airport)
- Hydro Mississauga
- Consumers Gas
- Esso Petroleum
- Interprovincial Pipeline
- Sun-Canadian Pipeline
- Trans-Northern Pipeline

In the EA Addendum Study, consultation focused on those agencies with a specific interest in the changes proposed. The Addendum study was led by a smaller Steering Committee comprised of City of Mississauga and GO Transit staff. The same consultant (McCormick Rankin) was involved in both processes.

The following external agencies were invited to provide input on the project at a "Stakeholders Meeting", on Wednesday, March 1st, 2004 at the Mississauga Civic Centre:

Provincial Government

- Ministry of Municipal Affairs
- Ministry of Natural Resources
- Ministry of the Environment
- Ministry of Transportation

Municipal Government

- City of Brampton
- Region of Halton
- Region of Peel
- Toronto Transit Commission
- Town of Oakville
- Oakville Transit

Conservation Authorities

- Credit Valley Conservation Authority
- Toronto and Region Conservation Authority

Corridor Stakeholders

- Borealis (now Oxford Properties) (major City Centre property owner)
- CP Rail / S L & H
- Enbridge Consumers Gas
- Enbridge Pipelines Incorporated
- Enersource Hydro Mississauga
- Greater Toronto Airport Authority (Pearson Airport)
- Hydro One
- Imperial Oil–Esso - Sarnia Products
- Ontario Realty Corporation
- Sun Canadian Pipelines
- Trans-Northern Pipeline

The purpose of the meeting was to update the various agencies regarding the project status and the specifically the proposed modifications to the 1992 EA Submission. A total of 18 people attended the meeting including four representatives from the Project Team. Stakeholders were provided with an information package outlining the background and purpose of the study, as well as a summary of changes to the approved plan and the next steps to be completed. The format of the meeting consisted of a presentation summarizing the background and objectives of the study, and proposed changes to the approved plan. A large-scale plan illustrating both the current proposed alignment and the approved (1992) alignment at was on display to highlight areas where changes are being proposed.

Summary of Comments

Minutes of the meeting and a copy of the stakeholder information package are provided in Appendix D. A table summarizing the comments received and how they were addressed is presented below. Participating agencies and affected utilities will also be sent a notice of filing of the final Report. These agencies were kept informed of the study and notified of changes in study status.

Table 6.1 – Summary of Stakeholder Comments

Agency	Comment Received	Response
Ministry of Natural Resources	Indicated that the project has the potential to impact a number of terrestrial and aquatic resources in the study area including the Credit River watershed, Cooksville Creek, the Creditview Wetland, the Credit River at Erindale Regional Life Science ANSI, and Provincial policies and programs.	Many of the proposed changes to the Transitway alignment would result in fewer impacts to the natural environment, and mitigation measures identified in the original EA study (in which MNR was involved) would still stand. The City will work closely with the CVC to resolve issues at watercourse crossings, as outlined in Section 5.2.1.
Enersource Hydro Mississauga	Enersource is interested in investigating the potential to install overhead utility lines adjacent to the BRT guideway in certain sections. Requested clarification on power requirements to feed the individual stations.	The potential to install utilities in conjunction with the BRT system will be investigated during the detailed design phase. Power requirements will be identified during the detailed design phase.
Enbridge Pipelines Inc.; Imperial Oil – Esso – Sarnia Products; Sun-Canadian Pipeline; Trans-Northern Pipeline Co.; Enbridge Consumers Gas	These agencies indicated that they operate utility pipelines or own infrastructure in the study area, and any costs incurred due to changes required for the implementation of the BRT system would have to be paid for by the City. Provided materials describing pipeline-crossing procedures, contractor's guidelines, and excavating and constructing near pipelines.	Pipeline issues were addressed in detail during the 1992 EA process Pipeline relocations will be investigated during the detailed design phase and cost-related issues will be addressed at that time.
CP Rail/SL & H	CP Rail indicated that they own infrastructure in the study area and would like to be informed of any effects to this caused by the Transitway.	Continued use of the existing Highway 403 BBS at the CP Rail crossing will have no impact on the CP Rail crossing structure. Future RBL design will reflect the existing rail structure. The crossing of the CP corridor by the ultimate Transitway plan has been defined in the 1992 EA and will be developed in more detail when the time comes to implement the Transitway in that area.
Ministry of Transportation of Ontario	See Table 6.2 below	See Table 6.2 below
Credit Valley Conservation Authority; Toronto Region Conservation Authority	See Section 5.2.1	See Section 5.2.1

Over the course of the Addendum study, more intense consultation occurred with the Credit Valley Conservation Authority and the Ministry of Transportation of Ontario.

The CVC's concerns regarding the Transitway crossing of Cooksville Creek and other issues are documented in Section 5.2.1, and that Section reflects the outcome of a collaborative effort on identifying issues and crafting appropriate responses and commitments to address concerns.

The MTO has various interests in the corridor, reflected in their comments made over the course of several meetings and project reviews. MTO input has been absorbed throughout the text and plans documented in this Addendum report. Key points of MTO concern and how they have been addressed are summarized below.

Table 6.2 – MTO Issues and Commitments to Mitigation

MTO Issues / Concerns	Comments	Recommended Design / Commitments to Mitigation
Avoid implication of provincial funding commitment	Province has supported the Transitway planning process (it co-funded 1992 EA study) and continues to provide related infrastructure (e.g. Highway 403 BBS activation) but no commitment has been made to future capital funding of the Transitway.	EA Addendum makes no mention of provincial funding
Include documentation of MTO concerns in EA Addendum	Draft EA Addendum report did not fully document MTO's concerns.	Minutes of MTO meetings and related correspondence kept on file at the City. MTO issues summarized in this Table and reflected in the recommended plan and text.
Ownership / responsibility for road and transit structures within highway right-of-way needs to be resolved.	Practice will follow precedents for municipal roads crossing provincial highways.	Future ownership is not addressed as part of EA Addendum
Capital cost not shown.	Capital cost was defined in 1992 EA and revised (reduced) through the City's technical work in 2003, as noted in Section 2.2.7.	Capital cost of Transitway project, as modified in 2003, is documented in Section 2.2.7 of EA Addendum.
Property requirements not shown.	Property envelope for the Transitway is documented in 1992 EA Report. Most changes in the Addendum result in reduced property impacts. In a few areas (e.g. Confederation Parkway bus loop and Erin Mills parking area) larger property requirements will be the subject of discussion with owners.	The Addendum does not involve any new property owners from those identified in 1992. Discussions involving property leases, acquisition, or easements will occur with those owners as part of the detail design process. All the necessary property within the corridor is being protected by the City.

MTO Issues / Concerns	Comments	Recommended Design / Commitments to Mitigation
Should discuss relation of Transitway to Brampton transit initiatives (e.g. Acceleride).	Brampton transit operations as they relate to the Mississauga Transitway are part of the operational strategy discussion in the 1992 EA. At that time, protection was made in the Mississauga Transitway design for a grade-separated north-south transitway in either the Highway 410 or the Hurontario corridors. The Mississauga Transit strategy (2002) no longer identifies Hurontario as a candidate for a grade-separated transit facility, but does focus on on-street Bus Rapid Transit operations (per the Acceleride program). There are no current plans for a north-south Transitway along Highway 410.	Hurontario buses can continue to access the Transitway at Rathburn via the planned bus ramp off Centre View Drive. Similarly, although the concept of a north-south transitway along Highway 410 does not appear to be in current plans, the revised Cawthra station continues to be capable of accommodating a variety of possible connections if such a facility emerges in the future.
Impact of P&R lots on traffic operations at Winston Churchill and Erin Mills station entrances	Note in report that MTO is initiating a study to develop standards for this type of intersection. Intersection analysis indicates several improvements required to maintain acceptable Level of Service to 2014. Both entrances are shown in 1992 approved EA.	Traffic analysis results documented and reviewed with MTO, and described in Section 5.1.2 of Addendum. Intersection improvements to be made at the time of parking lot construction. Any improvements will be developed through collaboration between the P&R lot proponent and the MTO, and are subject to MTO approval.
Adequate protection for full extent of roadworks / interchange improvements associated with parking lots at Erin Mills and Winston Churchill	Draft EA Addendum report focused on the station area and did not fully illustrate the potential extent of interchange roadworks triggered by the introduction of a station.	Interchange improvements triggered by the station introduction (e.g. W-N/S exit ramp widening) shown more fully in EA Addendum. Exit ramp improvements are premised on ensuring queues do not extend past the Highway 403 bullnose.
The re-aligned ramp radii shown at Winston Churchill Boulevard and Erin Mills Parkway interchanges (shown at Stakeholders meeting, 1 Mar 04) and the WB ramps at Mavis Road do not appear to conform to Ministry standards	Ramps re-drawn to reflect standards	All interchange revisions will be subject to MTO design criteria.
Design Criteria form required at the Winston Churchill and Erin Mills sites.	Design Criteria to be fully defined as project moves into Preliminary Design stage.	All interchange revisions will be subject to MTO design criteria and processes.

MTO Issues / Concerns	Comments	Recommended Design / Commitments to Mitigation
Question rationale for showing two lanes on S-W loop ramp at Erin Mills interchange (in draft plans)	Per MTO policy, protection for ramp meter bypass lanes included in all new interchanges.	Ramp structure crossing Transitway to protect for two lanes, but not necessary to show a two-lane ramp in Addendum.
Conversion of BBS to RBL should not compromise MTO's ability to protect for an ultimate ten-lane cross section on Highway 403	Although there are no plans to widen 403 to ten lanes, key structures have been designed so as not to preclude such an option in the future.	If ten-laning is required at some future point, that would likely be a trigger for a shift from BBS / RBL operation to a separate Transitway in the Mavis – Erin Mills segment. RBL does not preclude future 403 widening.
No warrants or thresholds are defined for the conversion of the BBS to Reserved Bus Lanes	Current Operating Agreement provides forum for semi-annual review of BBS performance; conversion need and timing will follow from that process.	The timing of conversion is not defined in the EA Addendum. The decision will defer to the ongoing monitoring process as defined in the BBS Operating Agreement. The Addendum seeks approval for the RBL as a Transitway staging option; the timing of that action is independent of the EA process.
Note BBS / RBL operations may be suspended during construction and future maintenance / rehabilitation periods		Note added to Section 5.1.1.
Provide adequate width on bus-only flyover east of Erin Mills	Single lane ramp must be wide enough to allow a bus to pass a stopped vehicle, and to allow the structure to be rehabilitated in the future without taking it out of service for an extended period.	Structure to be designed according to MTO standards for single lane ramps.
Noise impact of flyover (near Erin Mills) is responsibility of City, not MTO	Noise analysis shows that implementation of the flyover has negligible impact on south side Noise Sensitive Areas and does not require mitigation.	Noise analysis documented in EA Addendum. Flyover does not trigger need for noise mitigation per MOE protocol.
Keep all traffic lanes on Highway 403 open during the construction of any new structure across the highway.		Detail design and construction will be based on the principle of no reduction in the number of through lanes.
Design of Creditview on-line station is challenging; the City should not limit itself to a single concept design at this early stage in the planning and design process.	The draft EA Addendum showed a single concept, although it was recognized that many design, operational, and safety issues will need to be resolved through the preliminary and detail design process. Key design criteria remain uncertain at this time; the station will need to go through a substantial preliminary / detail	Station design details not shown in final EA Addendum; City and MTO agree to work together through the design process to develop a mutually satisfactory solution at Creditview.

MTO Issues / Concerns	Comments	Recommended Design / Commitments to Mitigation
	design process involving MTO and the station proponent.	
Confirm that extending the RBL through the Mississauga, SL&H (rail), and Creditview structures is feasible.	Structure openings are designed to protect for ten lanes. Will need to cut back slopes and provide toe walls. May not be feasible to extend full shoulder through structures.	Extending RBL through underpasses is feasible. Design issues to be addressed at detail design stage.
Consider alternatives for RBL position – eg shoulder outside RBL vs. shoulder between RBL and general traffic lane	Standard practice is for breakdown shoulder to be located at the outer limit of the travelled lanes, to minimize risk to stopped motorists, to minimize motorist confusion, and to maintain continuity of RBL.	Recommend shoulder to be located to the outside of the RBL.
Do not commit prematurely to overly-restrictive design parameters in discussion of RBL	Draft EA Addendum report included some specific design solutions in constrained areas. There are other options available.	Addendum text revised accordingly.
Concern with operations of Mavis Rd WB entry ramps, particularly combined S-W and N-W ramps.	Ultimately the planned North Collector will relieve Mavis ramp demand by providing an alternative WB exit from the City Centre to 403. Proposed new Transitway alignment is intended to take advantage of North Collector structures and route.	The ability remains to construct the Transitway on its original (approved) alignment through Mavis interchange area, to avoid ramp impact. If the proposed realignment were to be built, combined ramp design would follow MTO standards (similar to Winston Churchill / 403, Winston Churchill / QEW, Cawthra / QEW and other interchanges).
Concern about cumulative impact of various road and transit projects on north side residents between Hurontario and Mavis, particularly the removal of the existing berm as indicated by the North Collector plans.	Noise analysis demonstrates that the impact of the Transitway is minimal and does not trigger the need for mitigation. The berm removal is not caused by the Transitway and is therefore not a subject of the Transitway EA or Addendum. Any noise mitigation required by the North Collector project will be dealt with as part of that future Municipal Class EA project.	Despite mitigation not being required for the Transitway in this area, the City intends to provide a wall along the north side of the Parkway Belt east of Confederation Parkway to ensure the Transitway is not visible from adjacent homes.
Transitway impact on existing High Mast Lighting poles and infrastructure needs to be addressed.	HML poles shown on plans; Transitway conflicts with poles in some, but not all, locations. Issue of cost not necessary to be included in EA Addendum, since capital funding for Transitway program is not known at this time.	Conflicts between Transitway and HML infrastructure to be addressed at detail design stage. Alternatives will include pole relocation and Transitway / ramp redesign or localized realignment to minimize / avoid impact. MTO highway and interchange lighting requirements to be maintained.

MTO Issues / Concerns	Comments	Recommended Design / Commitments to Mitigation
Potential impact of Transitway on Highway 403 signing	Only Transitway change since 1992 approved plan that may affect signage is addition of flyover near Erin Mills Parkway.	Highway 403 signs cannot be mounted on bus flyover due to skewed crossing angle. Sign relocations planned as part of Highway 403 widening contract (2005) will reflect future presence of flyover.
Resolve impact of Transitway on south side berm to be formed east of Hurontario Street as part of Highway 403 widening work.	Planned berm (and stormwater management pond east of Central Parkway) is located partially on approved Transitway alignment	Berm to be shaped so as to minimize added fill on Transitway alignment. Elimination of protection for South Collector east of Hurontario allows Transitway alignment to shift away from planned MTO pond. These changes are reflected in recommended plans.
No discussion of Storm Water Management in draft EA Addendum.	Commitment to developing a SWM plan for the Transitway at the time of preliminary / detail design was part of approved 1992 EA. No change is proposed to that commitment.	The SWM provisions of the 1992 approved EA will apply to any of the revisions documented in this Addendum.
Potential impact of Cawthra Park & Ride lot access on Eastgate Parkway / Hwy 403 ramp intersection	P&R lot access is 350m away from intersection and will not affect its operations.	P&R access / Eastgate Parkway intersection will be developed in detail and its traffic operations analyzed by the City in the detail design stage. Adequate flexibility exists to accommodate a wide range of P&R lot needs.
Protect for interchange at Cawthra / Eastgate Parkway intersection	The 1992 Transitway alignment protects for a diamond interchange at the adjacent intersection. The City of Mississauga has no plans to construct such an interchange.	Protection is inherent in approved 1992 plans.

6.2 Public Consultation Program

A key component of the EA process is public consultation during the process. For this study, the main points of public contact were:

- To notify the public that the study was commencing;
- To review and receive public input regarding the preferred alternative;
- To review the EA Addendum report.

Three Public Information Centres (PICs) were held as follows:

Date		February 9 th , 2004	February 25 th , 2004	April 14 th , 2004
Location		St. Clare School, 4140 Glen Erin Dr.	Mississauga Civic Centre, Grand Hall	South Common Community Centre, Tempo Room
Purpose		To review and receive public input regarding the preferred alternative.		To focus on community concerns and issues in the Credit River – Erin Mills segment
Staff in Attendance	<i>City of Mississauga</i>	Martin Powell Tom Mulligan Willy Ing Bob Sasaki		
	<i>Mississauga Transit</i>	Bill Cunningham Ettore Iannacito		Ettore Iannacito
	<i>GO Transit</i>	Ken Armstrong	-	Mike Wolczyk
	<i>MRC</i>	Dale Turvey Andrew Shea	Dale Turvey Steve Schijns Andrew Shea	Steve Schijns Andrew Shea
Registered Public Attendance (Signed In)		18	25	66

All three of the PICs followed the same format and presented the same information. Each PIC consisted of a series of panels summarizing the analysis to date and the resulting conclusions (see Appendix E). A set of 1:5000 scale plans of the entire Transitway was used to illustrate the proposed changes to the alignment from the plan approved in 1992. Additional plans were prepared at a larger scale illustrating the specific areas where changes are proposed. Members of the Technical Advisory Committee circulated among the visitors, discussing, explaining, and listening to the comments on the study.

At the April 14th, 2004 Public Information Centre, a brief spontaneous presentation was made by the Project Team in response to a number of requests from the public. This presentation was followed by a question-and-answer period. The concerns focused on the issue of noise in the corridor, specifically in the area east of Erin Mills Parkway to the Credit River. Many of the questions were related to traffic noise generated by Highway 403, and the responsibility of the Ministry of Transportation. Since MTO staff were not present to provide responses, the City of Mississauga committed to hold an additional meeting at which any unanswered questions could be addressed.

This additional community meeting was held on June 16th, 2004. This meeting (note that it was not a “public” drop-in type centre) focused on the effects of the proposed flyover in the area of Erin Mills Parkway/Credit River. Invitations were sent to those who attended the April 14th public meeting, or who had expressed an interest in the area through contact with the City. Approximately 60 residents attended. The meeting included a presentation by MRC on the impacts of the flyover, followed by a question-and-answer period. The Ministry of Transportation was represented by a noise specialist who addressed concerns related to highway noise and mitigation.

Notification of each Public Information Centre was provided as follows (see Appendix E):

February 9th, 2004:

- Notice placed on the City of Mississauga website (<http://www.mississauga.ca/portal/cityhall/publicnotices>) on January 28th, 2004 through to February 16th, 2004;
- Notification was provided to affected Councillor via e-mail on January 19th, 2004 requesting their presence at the Public Meeting;
- Notice placed in the Mississauga News on Wednesday, January 28th, 2004;
- 2897 notices were delivered to residents within 300m of the facility between 9th Line and Glen Erin Drive beginning on January 30th, 2004.

February 25th, 2004:

- Notice placed on the City of Mississauga website (<http://www.mississauga.ca/portal/cityhall/publicnotices>) on February 11th, 2004 through to March 10th, 2004;
- Notification was provided to the affected Councillors via e-mail on January 30th, 2004 requesting their presence at the Public Meeting;
- Notice placed in the Mississauga News on February 11th, 2004 and February 18th, 2004;
- 14,291 notices were delivered to residents within 300m of the facility between Glen Erin Drive and Hurontario Street beginning on February 18th, 2004.

April 14th, 2004:

- Notice placed on the City of Mississauga website (<http://www.mississauga.ca/portal/cityhall/publicnotices>) on March 31st, 2004 through to April 21, 2004;
- Notification was provided to the affected Councillors via e-mail on March 9th, 2004 requesting their presence at the Public Meeting;
- Notice placed in the Mississauga News on Wednesday, March 31, 2004 and Wednesday, April 7th, 2004; and
- 6047 notices were delivered to residents within 300m of the facility between 9th Line and the Credit River beginning on March 29th, 2004

June 16, 2004 (Community Meeting):

- Individually addressed Notices of Meeting were mailed on May 26th, 2004 to members of the public that signed-in at the April 14th, 2004.

Comments Received and Responses

Approximately 65 formal comments were received throughout the public consultation process, through comment sheets, faxes, e-mails, and telephone conversations (see

Appendix E). The comments generally related to the existing noise levels in the corridor and the potential increase due to the Transitway. All written or e-mailed comments were responded to by the City with individual letters. The comments received at or following the PICs may be summarized as follows:

Table 6.3 – Public Comments and Responses

Comment Received	Response
Many attendees were supportive of the BRT system	No response required
Some attendees questioned the need, timing, and cost of the BRT plan	The need and justification for the Mississauga Transitway was addressed – and approved – in the 1992 EA process. It remains a fundamental element in the City's transportation strategy and in GO Transit's Inter-regional transit plan.
Concerns regarding the potential to increase noise in the Highway 403 corridor where many residents perceive that the existing noise levels are too high. Specific concerns about the area of the proposed flyover east of Erin Mills Parkway. Additional noise barriers were a common suggestion.	Noise analysis has shown that the Transitway will result in no perceivable noise increase in the 24-hour average noise level. Existing and future highway-related noise is the responsibility of the Ministry of Transportation of Ontario.
Concerns over the potential visual intrusion of the flyover east of Erin Mills Parkway.	The City of Mississauga has committed to providing a visual screen on the south berm of Highway 403 east of Erin Mills Parkway where a bus on the flyover could be visible from the 2 nd floor window of any home adjacent to Highway 403.
Some residents would like to see the Transitway constructed on the north side of Highway 403 as approved in 1992.	The approved north side alignment will continue to be protected for. However, the estimated additional cost of between \$50-\$70M for construction of the Transitway between Erin Mills Parkway and Mavis Road can be deferred for many years by making use of existing Highway 403 infrastructure.
Concern regarding perceived additional airborne pollution caused by increased number of buses operating in the Highway 403 corridor.	Buses will be operating in the Highway 403 corridor whether or not the Transitway is constructed; air quality will therefore not be significantly affected by implementation of the Transitway.
Residents proposed constructing a tunnel under Highway 403 as opposed to the flyover east of Erin Mills Parkway.	Tunnel section would result in significant cost increases and construction complications, and would not be justified given the marginal impact it would have on noise and visual intrusion.

APPENDIX A
Transitway Station Details

<i>Station</i>	<i>E.A. Proposal (1992)</i>	<i>Revised Proposal (2004)</i>
Ridgeway Drive	<ul style="list-style-type: none"> - Station located on the west side of Ridgeway Drive, on the north side of the Hydro Corridor - park and ride lot - kiss and ride area - local bus platforms and turnaround - transitway bus turnaround and layover lot - ramp connection to Ridgeway Drive 	<ul style="list-style-type: none"> - station shifted to east side of Ridgeway Drive, on the south side of the Hydro Corridor - transitway bus turnaround and layover lot maintained - ramp connection to Ridgeway Drive maintained
Winston Churchill Boulevard	<ul style="list-style-type: none"> - station located on the west side of Winston Churchill Boulevard, on the north side of the Hydro Corridor - park and ride lot - kiss and ride area - local bus platforms and turnaround - station access road to Winston Churchill Boulevard 	<ul style="list-style-type: none"> - station shifted to the south side of the Hydro Corridor - 200 space park and ride lot - station access road to Winston Churchill Boulevard maintained
Erin Mills Parkway	<ul style="list-style-type: none"> - station located on the west side of Erin Mills Parkway, on the north side of the Hydro Corridor - park and ride lot - local bus platforms and turnaround - station access road to Erin Mills Parkway 	<ul style="list-style-type: none"> - station shifted to the south side of the Hydro Corridor - 200 space park and ride lot - station access road to Erin Mills Parkway maintained
Creditview Road	<ul style="list-style-type: none"> - station located on the west side of Creditview Road - kiss and ride area - local bus platforms and turnaround - station access road 	<ul style="list-style-type: none"> - shoulder platforms with bus bays provided on-line - local platforms provided on Creditview Road
Mavis Road	<ul style="list-style-type: none"> - station located on the west side of Mavis Road - kiss and ride - local bus platforms and turnaround 	<ul style="list-style-type: none"> - station eliminated
City Centre	<ul style="list-style-type: none"> - below grade station located in tunnel section under Rathburn Road - at-grade local bus platforms with ramp connections to transitway - bus turnaround below-grade - at-grade kiss and ride area - at-grade layover lot 	<ul style="list-style-type: none"> - below-grade station located in tunnel section under Station Gate Road - local bus platforms eliminated - bus turnaround eliminated - kiss and ride area eliminated - layover lot eliminated
Hurontario Street	<ul style="list-style-type: none"> - station located west of Hurontario Street - access roads providing connections to Centre View Drive - local bus platforms - layover lot 	<ul style="list-style-type: none"> - station eliminated - bus turnaround and layover lot located west of Hurontario Street - access road to Centre View Drive maintained

Central Parkway	<ul style="list-style-type: none"> - station located on proposed structure over Central parkway - local platforms located under proposed structure 	<ul style="list-style-type: none"> - platforms shifted to either side of Central Parkway - local platforms shifted south of proposed structure
Cawthra Station	<ul style="list-style-type: none"> - station located on the east side of Cawthra Road - extensive ramp connections to Highway 403, Cawthra Road, and Eastgate Parkway - park and ride lot - kiss and ride lot - local bus platforms and turnaround 	<ul style="list-style-type: none"> - 200 space park and ride lot - ramp connections to Eastgate Parkway only maintained - kiss and ride lot eliminated - local bus facilities eliminated
Tomken Road	<ul style="list-style-type: none"> - station located below-grade on east side of Tomken Road - at-grade local platforms and bus turnaround - access ramp to Tomken Road 	<ul style="list-style-type: none"> - EB platform shifted to west side of Tomken Road - local platforms relocated to Tomken Road - access ramp to Tomken Road maintained
Dixie Road	<ul style="list-style-type: none"> - station located below-grade on west side of Dixie Road - at-grade local platforms with bus turnaround - at-grade kiss and ride area - access ramps to Dixie Road located on both sides of station 	<ul style="list-style-type: none"> - WB platform shifted to east side of Dixie Road - 200 space park and ride lot replaced kiss and ride area - access ramps to Dixie Road maintained
Fieldgate Drive / Tahoe Boulevard	<ul style="list-style-type: none"> - station located on south side of proposed Tahoe Boulevard - access ramp to proposed Tahoe Boulevard with bus turnaround 	<ul style="list-style-type: none"> - WB platform shifted to north side of proposed Tahoe Boulevard - bus turnaround eliminated - access ramp to Tahoe Boulevard maintained
Entrance to Bell Mobility	<ul style="list-style-type: none"> - protection for possible station proposed 	<ul style="list-style-type: none"> - station located below-grade at Bell Mobility
Spectrum Drive	<ul style="list-style-type: none"> - station located below-grade under Spectrum Drive structure 	<ul style="list-style-type: none"> - platforms shifted to either side of Spectrum Drive structure
Orbitor Drive	<ul style="list-style-type: none"> - station located below-grade under Orbitor Drive structure 	<ul style="list-style-type: none"> - platforms shifted to either side of Orbitor Drive structure
Renforth Drive Station	<ul style="list-style-type: none"> - station located above-grade west of Renforth Drive - at-grade bus turnaround - access ramps to Commerce Boulevard and Matheson Boulevard - park and ride lot and kiss and ride area located south of Eglinton Avenue 	<ul style="list-style-type: none"> - station re-located at grade - bus layover lot provided on north side of platforms - access ramps to Commerce Boulevard and Matheson Boulevard - at-grade bus turnaround shifted to north of platforms - park and ride lot and kiss and ride area eliminated

APPENDIX B
Updated Transitway Plan / Profile

APPENDIX C
Noise Analysis

APPENDIX D
Stakeholder and Agency Consultation

APPENDIX E
Public Consultation

APPENDIX F
Mississauga Transitway Notice Of Approval
(1993)
