MUNICIPAL ENGINEERS ASSOCIATION

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT NEW PART D – TRANSIT PROJECTS

- **Draft text for Part D**
- **Draft Project Schedules for insertion into Appendix 1 of the Municipal Class EA Document**

DRAFT
Note: This is a DRAFT only. It has been developed through review by the Transit Sub-Committee but is still subject to review with government review agencies, municipalities, and the public. The document will then be reviewed and modified taking into consideration the comments received. The final version of Part D will ultimately be incorporated into the Municipal Class EA parent document which is a copyrighted document.

McCORMICK RANKIN CORPORATION

In association with

Ecoplans Limited

Revised April 3rd, 2007

DRAFT
(April 3rd, 2007)

PART D

MUNICIPAL TRANSIT PROJECTS

(Note to reader: The Municipal Class Environmental Assessment (EA) Parent Document (June 2000) was prepared by the Municipal Engineers Association and applies to municipal roads, water and wastewater projects. The Municipal Class EA is organized as follows:

- **Part A – Class EA Planning Process**
- **Part B – Municipal Roads Projects**
- **Part C – Municipal Water and Wastewater Projects**
- **Appendices including project schedules**

To add municipal transit projects, it is proposed to add a new section entitled "Part D – Municipal Transit Projects". In addition, a listing of transit projects and the associated project schedules would be added to the Appendix. The attached draft of Part D and the project schedules has been developed through extensive discussion and review by the MEA Transit Sub-Committee which includes representatives of:

- **The Municipal Engineers Association**
- **Ontario Ministry of the Environment**
- **Ontario Ministry of Public Infrastructure Renewal**
- **City of Hamilton**
- **City of Mississauga**
- **City of Ottawa**
- **City of Toronto**
- **Toronto Transit Commission**
- **Region of Waterloo**
- **York Region**

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PART D - MUNICIPAL TRANSIT PROJECTS

D.1 INTRODUCTION AND BACKGROUND

Transit is a key component of municipal transportation networks. As municipalities continue to grow, there is an increasing emphasis being placed on transit due to its overall societal benefits on a broad scale. This is clearly evident in the identification of significant increases in transit as an integral part of many of the municipal Transportation Master Plans that have been or are being completed.

Prior to adding Part D (Municipal Transit Projects) to the Municipal Class Environmental Assessment parent document, municipalities did not have a pre-approved planning process under the Ontario Environmental Assessment (EA) Act to plan and implement transit projects. As a result, municipalities used a variety of different mechanisms under the EA Act, including the following:

1) Ontario Regulation 334, which includes provisions that:

   i) identify new bus service on an exclusive right-of-way or a new rail transit system, or a new station, terminal or marshalling yard for a rail transit system, being subject to the requirements of an Individual Environmental Assessment (IEA).

   ii) exempt projects with an estimated cost of not more than $3.5M (note – this exemption does not apply to projects that are covered by parent Class EA documents).

2) Using the "Linear paved facility" definition (amended in 2004) in the Municipal Class EA

3) Partnering with the Ontario Ministry of Transportation (MTO) and/or GO Transit and then utilizing the transit provisions in their respective parent Class EA documents

4) Undertaking an Individual Environmental Assessment

With the growing emphasis on transit at the federal, provincial and municipal levels, municipal proposals for a wide range of transit initiatives are escalating. It is recognized that public transit offers many benefits as compared to the private automobile including:

- It is a more effective and efficient way of moving people;
- It is more energy-efficient per person
- It requires less energy and produces less emissions per person;
- It provides mobility to all persons in society; and
- As a result, it will help achieve sustainable development and an improved urban environment.

The ability to carry out municipal transit projects under the Municipal Class EA parent document provides proponents with an opportunity to expedite the planning of municipal transit projects since they are EA-approved under the Ontario EA Act. GO Transit and the Ministry of Transportation currently have pre-approved planning process that allow them to plan and implement inter-regional and provincial transit projects.

Municipalities have identified the need to develop an approach that would allow them to plan and design transit projects in a streamlined pre-approved process that provides for public consultation and assessment of environmental effects. The ability to carry out municipal transit projects under the Municipal Class EA was therefore identified in the Municipal Class EA (2000) 5-year review.

Therefore, in 2006/7, a study was undertaken to add municipal transit projects/activities to the Municipal Class EA parent document. The study itself is being undertaken as a Schedule C and an Environmental Study Report will be filed for public review. Based on the study findings and recommendations, MEA will submit a Major Amendment to the Ministry of the Environment (MOE) for approval to add municipal transit projects to the Municipal Class EA document. The Major Amendment will include:

- Adding a new Part D to the parent document which addresses Municipal Transit Projects
- Adding a section to Appendix 1 of the parent document outlining municipal transit projects and their associated project schedule under the Municipal Class EA.
- Editing the remainder of the Municipal Class EA document where applicable, to include references to transit.

Approval of the Major Amendment was received on DATE.

D.1.1 Definition of "Municipal Transit"

In general, "Municipal Transit" refers to public transportation services (and facilities) undertaken by a municipality for travel within a municipality or region, and can incorporate various technologies including bus, streetcar/light rail vehicle, and heavy rail.

For the purposes of Part D of the Municipal Class EA, however, "transit" includes all transit technologies other than heavy rail (subway). Accordingly, new heavy rail lines and maintenance facilities, or extensions of existing heavy rail lines are not included in this transit chapter. Since new, or extensions of existing heavy rail lines are not undertaken by municipalities on a frequent basis, the MOE has advised that the planning and design of heavy rail facilities will continue to be subject to Part II of the Ontario EA Act (i.e. Individual Environmental Assessment).

New, or changes to, heavy rail system elements including stations, park and ride lots, etc., however, are included in the Municipal Class EA. This is because: they are associated with an approved linear component of a transit facility; these types of activities are undertaken on a frequent basis to maintain and operate existing systems; and the anticipated environmental effects are generally predictable given that the projects are site-specific with localized impacts.

D.1.2 Glossary of Transit Terms

This section defines terms specific to the transit section of the Municipal Class EA. It should be noted, however, that the glossary of terms included in the main Municipal Class EA document (see pages G-1 to G-11) applies to Part D as well.

With the addition of "Transit Projects" to the Municipal Class EA parent document, it is proposed that the definition of "linear paved facility" be modified to:

> "Means facilities which utilize a linear paved surface including road lanes, or lanes for HOV lanes."

Municipal Transit – see Section D.1.1

Heavy Rail Transit (HRT) – Refer to the American Public Transportation Association (APTA) *Public Transportation Fact Book, 2006*

Transit System – Encompasses the linear component of a transit facility and associated system elements such as stations, park and ride lots, storage and maintenance facilities and other ancillary features.

Linear Component of a Transit System - the travelled way including road lanes, lanes in an exclusive right-of-way, at grade track, or grade separated lanes/track of a transit facility and other ancillary features (e.g. ballast, electrical substations etc), exclusive of stations, park and ride lots and storage and maintenance facilities.

Transit Loop – A facility constructed for the primary purpose of allowing a transit vehicle to turn around, either at the end of, or midway along, its route. Transit loops may include modest pedestrian facilities such as a passenger shelter and, in some cases, washrooms for operators.

Transit Stop –A facility where transit vehicles stop to pick up and discharge passengers and may include boarding/alighting platforms, bus bays, passenger shelters, benches, fare collection equipment, passenger information facilities and other related passenger equipment, amenities, and facilities. Examples of transit stops include:

- A bus, streetcar, or light rail vehicle stop or group of stops located on any roadway;
- A stop or group of stops on any existing transit facility such as a separate busway or rail facility, or a median bus rapid transit or rail facility with no or minimal intermodal transfer provisions (e.g. provisions to transfer between interregional and local bus services).

Transit Station/Terminal – A facility which is typically designed to accommodate passenger transfer activity between transit modes and other travel modes, and may include passenger pick-up and drop-off, and park and ride lots. Transit stations may include overpasses/underpasses for pedestrian use, passenger services buildings, shelters or structures, benches, fare collection equipment, passenger information facilities, bicycle posts/lockers and/or other related passenger equipment, amenities and facilities. The implementation of transit stations typically requires property acquisition. For the purposes of the Municipal Class EA, a transit station may also include the construction of a new subway station on a existing subway line, with or without any significant transfer facility at-grade.

Maintenance Facility – A facility where the service and repair of major mechanical components of transit vehicles is undertaken and typically includes vehicle storage.

Storage Facility/Yard – A facility used for the storage of transit vehicles, and can include vehicle fuelling, washing facilities, and minor "running maintenance".

Intelligent Transportation Systems (ITS) – "The application of advanced and emerging technologies (computers, sensors, control, communications, and electronic devices) in transportation to save lives, time, money, energy and the environment"

Source: *ITS Canada*, 2006

Park and Ride Lot – Parking lot associated with a transit stop, station, or terminal, for the purposes of passenger transfer between personal automobile and transit services.

The Municipal Class EA defines the ***same purpose, use, capacity and location*** for municipal roads and water/wastewater projects in the Glossary section of the parent document. The definition has been modified for transit projects (as per Part D and Section iii) of Appendix 1) as follows:

Same *Purpose, Use, and Location* (for transit projects/activities) refers to the replacement or upgrading of a structure or facility, where the objective and application remain unchanged, and there is no substantial change in location. For the purposes of the Transit Project schedules:

> *Purpose* and *Use* refer to the overall intended result/objective of the project, and the specific operational utilization of the corridor.
>
> *Location* refers to the specific site of physical changes. Works carried out within an existing road allowance such that no land acquisition is required are considered to be in the same *location*. (Note: *road allowance* is defined in the Glossary section of the parent document) It is recognized that some projects may involve no change in purpose or use and be within the existing road allowance other than minor additional property requirements in localized, site-specific areas. If the impacts are determined not to be significant, this can be considered to be in the same location.
>
> *Example a) A median transit lane separated from general traffic by a physical barrier is reconstructed with no change in footprint is considered to be for the same **purpose/use** as the reconstruction does not remove or introduce new physical separation.*
>
> *Example b) A median transit lane separated from general traffic by pavement markings and signage only is reconstructed as a physically-separated (e.g. semi-exclusive) transit lane. This is considered to be for a different purpose/use as the reconstructed facility implements physical separation.*
>
> *Example c) A general traffic lane is reconstructed as a physically-separated (e.g. semi-exclusive) transit lane. This is considered to be for a different **purpose/use** as the reconstructed facility implements physical separation.*

D.1.3 Transit in the Municipal Class EA

In fulfillment of the requirements of the EA Act, this section provides a broad description of the following with respect to municipal transit projects:

- the projects, purpose and alternatives
- the environment and potential mitigating measures
- screening criteria

Part D follows the format of the Municipal Class EA (2000) for Part B – Road Projects and Part C - Water and Wastewater projects, recognizing that there are similarities between types of municipal projects and potential impacts. Part D should be reviewed in conjunction with the project schedules in Appendix 1; typical mitigation measures for potential effects in Appendix 2; and, screening criteria in Appendix 3.

The Municipal Class EA process, including consultation and documentation, is provided in Part A of the Municipal Class EA.

D.1.4 Key Considerations

Transit projects/activities in general are discussed in section D.2. This Section addresses key considerations when developing and assessing alternatives.

When generating and evaluating alternative transit improvement solutions in Phases 2 and 3 of the Municipal Class EA process, the proponent shall bear the following considerations in mind:

1. Land-Use Planning Objectives

Land-use planning objectives refer to the plans and policies as identified in provincial plans and municipal Official Plans and Secondary Plans. At a provincial level, key policies/plans include the Provincial Policy Statement (PPS), the Places to Grow Act (2005) and associated Growth Plan(s).

The Ontario Planning Act requires that municipal Official Plans contain "goals, objectives, and policies established primarily to manage and direct physical change and the effects on the social, economic, and natural environment". The Planning Act prescribes a rigorous process by which Official Plans are to be developed and periodically reviewed, including opportunities for extensive public consultation. Once adopted by the local municipal council, Official Plans are formally approved by the Ontario Minister of Housing and Municipal Affairs and, where applicable, are required to be in conformity with provincial objectives. Once in place, Official Plans are legal documents, and therefore, provide the specific municipal policies and objectives that need to be considered including, but not limited to, those for: urban areas, growth areas/corridors, rural areas, neighbourhoods and residential areas, employment areas, commercial, institutional, recreational, natural, open space, agricultural, and special policy areas.

2. Natural Heritage Features

The Natural Environment consists of the following typical elements:

- Landforms (including valleylands)
- Groundwater
- Surface water and fisheries
- Terrestrial Vegetation and wetlands
- Wildlife and habitat; and
- Connections provided by, or between these, resources

Within this natural environment framework, significant natural heritage features may be identified at the local, regional, provincial or federal level reflecting municipal, Conservation Authority, provincial or federal designations/policies. Key elements such as valleylands, fish habitat, evaluated wetlands (including Provincially Significant Wetlands), significant portions of the habitat of threatened and endangered species, Areas of Natural and Scientific Interest (ANSI), and Environmentally Sensitive Areas (ESAs) will constitute significant natural heritage features. Woodlands and wildlife habitat may also constitute significant features if certain criteria are met.

Natural heritage features should be identified early in the EA process to determine significant features and potential impacts. Significant natural heritage features should be avoided where possible. Where they cannot be avoided, then effects should be minimized where possible, and every effort made to mitigate adverse impacts.

In most cases, municipalities have specific policies related to natural environmental protection. These policies, along with regional, provincial, and/or federal policies should be identified as part of the EA process.

3. Social Environment

The Social Environment includes existing communities, residential areas and recreational areas. Significant negative impacts to the social environment should be avoided where possible. Where they cannot be avoided, then effects should be minimized where possible, and every effort made to mitigate adverse impacts. Key considerations are the overall community impacts to residential property and access, community facilities and access, recreational facilities and access, pedestrians, cyclists, noise impacts and air quality.

In most cases, municipalities have specific policies related to social environmental protection. These policies, along with regional and/or provincial policies should be identified as part of the EA process.

4. Cultural Environment

The Cultural Environment includes: i) archaeological resources, and ii) built heritage resources and cultural heritage landscape. They are defined as follows:

Archaeological Resources includes artefacts, archaeological sites and marine archaeological sites.

Built heritage resources means one or more buildings, structures, monuments, installations or remains associated with architectural, cultural, social, political, economic or military history and identified as being important to a community. These resources may be identified through designation or heritage conservation easement under the Ontario Heritage Act, or listed by local, provincial or federal jurisdictions.

Cultural heritage landscape means a defined geographical area of heritage significance which has been modified by human activities and is valued by a community.

Significant cultural heritage features should be avoided where possible. Where they cannot be avoided, then effects should be minimized where possible, and every effort made to mitigate adverse impacts. Cultural heritage features should be identified early in the process in order to determine significant features and potential impacts.

5. First Nations/Aboriginal Peoples

This includes, but is not limited to:

- First Nations lands
- Aboriginal Peoples' Treaty Rights or use of land and resources for traditional purposes
- Aboriginal Peoples' industry
- Pre-historic and historic Aboriginal Peoples' archaeological sites

- Aboriginal Peoples' rights claims

6. Economic Environment

Economic Environment includes commercial and industrial land uses and activities. It also includes the financial costs associated with the alternatives, including construction, operation, maintenance, and property costs.

7. Property

Significant impacts to property should be avoided where possible. Where they cannot be avoided, the effects should be minimized where possible, and every effort made to mitigate adverse effects. Property impacts include direct impacts on: access, parking, and buildings, and indirect impacts where by relocating property lines the property owner is placed out of compliance with local standards (e.g. building setback requirements, etc.).

8. Evaluation of Alternative Solutions

When evaluating alternative solutions, the following considerations should be kept in mind:

- Many of the potential alternative solutions may resolve more than one problem.
- The feasibility of the alternative solutions will depend, in part, on the nature and location of the transportation system, the nature and location of the opportunity and/or problem(s) being addressed, the comparative cost of the alternative solutions, and on the municipality's capacity to finance the extension of services.

At a broad planning level, this step is typically addressed in Transportation Master Plans (see Section D.1.5), recognizing that the determination of transit needs would be a component of developing a balanced and integrated multi-modal transportation solution.

D.1.5 Overview of Transit in Transportation Master Plans

Many municipalities undertake Transportation Master Plans (TMPs) to define their long-term transportation objectives as a supplement to transportation needs identified through their Official Plan development process. A Transportation Master Plan integrates existing and future land-use planning and the planning of transportation infrastructure with the principles of environmental assessment planning.

In larger urban areas, Transportation Master Plans often recognize that the current level of reliance on the automobile is not sustainable and that public transit provides benefits to the natural, social, and economic environment by improving mobility for people through providing traffic relief for people and goods, and reducing environmental impacts. As such, many Transportation Master Plans at the regional and local levels emphasize that increased use of transit is a key component of an integrated transportation strategy that considers all modes of travel.

Transportation Master Plans build upon the analysis and detailed policies developed through municipal Official Plans. Therefore, it must be recognized that the link between Transportation Master Plans and Official Plans is fundamental. An Official Plan is a legal document, developed through a public and legislative process in accordance with the Ontario Planning Act that contains "goals, objectives and policies established primarily to manage and direct physical change and the effects on the social, economic and natural environment of the municipality". While Official Plans are approved under the Ontario Planning Act, typically they are developed

through a process which applies the principles of EA planning. As such, Official Plans provide a planning and technical basis for undertaking infrastructure environmental assessment studies.

Transportation Master Plans are developed through a stakeholder consultation process that involves consultation with the public, government technical agencies, other municipalities, and First Nations. If developed in accordance with Section A.2.7 of the Municipal Class EA, at a minimum, a TMP can address Phases 1 and 2 of the Municipal Class EA process. As a result, a TMP can provide the basis for carrying out follow-on EA studies of the specific components, including the problem and/or opportunity being addressed and the range of alternatives being considered. Transportation Master Plans are discussed in Section A.2.7 of the parent document.

D.1.6 Integration with the Planning Act

The Municipal Class EA also provides for the opportunity to integrate the requirements of the Ontario EA Act with the requirements of the Ontario Planning Act as discussed in Section A.2.9 of the Municipal Class EA parent document. The key is that the requirements of both Acts must be met.

It is also recognized that many site specific facilities (e.g. stations, maintenance facilities, etc.) are also subject to approval under the Planning Act. As such, it is possible to integrate the Planning Act approvals with Class EA requirements. These issues are fully discussed in detail in Section A.2.9 of the Municipal Class EA.

D.2 DESCRIPTION OF THE PROJECTS, PURPOSE AND ALTERNATIVES

This section addresses the main groupings of transit projects/activities as follows:

- D.2.1. – New Transit Systems
- D.2.2. – Linear Facilities and Associated Elements
- D.2.3. – Site-Specific Facilities
- D.2.4. – The Do Nothing Alternative

D.2.1 New Transit Systems

D.2.1.1 Description of the Projects

New Transit Systems, as defined in the Glossary – see Section D.5, are comprised of both the linear component of a transit system and associated system elements such as stations, park and ride lots, storage and maintenance facilities and other ancillary features. These projects typically involve the acquisition of a new or widened right-of-way.

D.2.1.2 Purpose of the Project

New transit projects planned under this Class EA will be undertaken to provide new or extended transit facilities for the following possible reasons:

1) to accommodate and support opportunities and policies for economic development and municipal growth

2) to support opportunities and policies for reducing auto dependency and increasing use of alternate modes of transportation, including transit
3) to address projected capacity deficiencies in the transportation system
4) to provide greater transportation choice for basic mobility for those persons who do not have an alternative, including transit-dependent students, lower income workers, seniors and persons who cannot or do not drive.
5) to support policies for reducing environmental and health impacts of transportation.
6) to provide access to existing or proposed land uses.

D.2.1.3 Alternative Solutions

In many instances, there may be more than one way of solving problems, addressing opportunities or meeting the demand for new or extended transit facilities. Possible "Alternative Solutions" may include, for example:

1) Widen or improve existing roads for general traffic, High Occupancy Vehicles (HOVs) or transit vehicles
2) Transit operational changes (i.e. increased or extended routes on existing roads)
3) Provide alternative transportation facilities such as a new road, train, ferry, etc.
4) Limit / manage growth
5) Develop alternative routes for existing or anticipated traffic
6) "Do Nothing"

It should be noted that a combination of alternatives may be required to address the problem and/or opportunity (e.g. widen roadway for exclusive bus use in peak periods and general traffic use in off-peak periods).

D.2.2 Linear Facilities and Associated Elements

D.2.2.1 Description of the Projects

Projects of this type would typically involve one or more of the following:

- Construction or reconstruction of transit-only lanes or transit loops
- Construction of new localized operational improvements at specific locations (e.g. queue-jump lanes, turning lanes, etc.)
- Installation, construction, or reconstruction of traffic control devices
- Construction or reconstruction of grade-separations
- Reconstruction or replacement of water crossings and culverts to facilitate new or modified transit improvements
- New or modified Intelligent Transportation Systems elements for transit systems
- Installation, modification, or reconstruction of safety facilities (i.e. lighting, safety barriers, energy attenuation, etc.)

D.2.2.2 Purpose of the Project

Linear facilities and associated elements will be undertaken for the following possible reasons:

1) to accommodate and support opportunities and policies for economic development and municipal growth

2) to support opportunities and policies for reducing auto dependency and increasing use of alternate modes of transportation, including transit
3) to address projected capacity deficiencies in transportation system
4) to provide greater transportation choice and basic mobility for those persons who do not have an alternative, including transit-dependent students, lower income workers, seniors and persons who do not drive.

5) to address deficiencies in current transportation infrastructure, including structural and capacity deficiencies
6) to support policies for reducing environmental and health impacts of transportation.
7) to provide access to existing or proposed land uses.

D.2.2.3 Alternative Solutions:

In many instances, there may be more than one way of solving problems, addressing opportunities or meeting the demands on existing linear facilities. Possible "Alternative Solutions" may include, for example:

1) Widen or improve existing facilities for general traffic, High Occupancy Vehicles (HOVs) or transit vehicles
2) Transit operational changes (i.e. increased or extended routes on existing roads)
3) Provide alternative transportation facilities such as train, ferry, etc.
4) Limit / manage growth
5) Develop alternative routes for existing or anticipated transit
6) "Do Nothing"

It should be noted that a combination of alternatives may be required to address the problem and/or opportunity (e.g. widen roadway for exclusive bus use in peak periods.

D.2.3 Site-Specific Facilities

While "site-specific" facilities are often part of linear transit systems, they may also be "standalone" facilities. Transit systems include both linear components and site-specific facilities.

D.2.3.1 Description of the Projects

Projects developed in this group may include the following:

- construction or expansion of transit stations
- construction or expansion of transit maintenance facilities
- construction or expansion of transit storage facilities
- construction or expansion of park and ride lots

D.2.3.2 Purpose of the Projects

Projects to develop site-specific facilities are undertaken to address one or more of the following problems:

1) additional or expanded stations required to meet demand or service requirements

2) increased transit vehicle fleet to be maintained

3) inadequate parking facilities

4) inadequate vehicle storage facilities

D.2.3.3 Alternative Solutions

The above problems, opportunities or a combination of them could justify the development of a site-specific project. Alternative solutions which may be considered are:

1) Build a new facility

2) Increase the capabilities of a nearby facility

3) Increase the efficiency of operation of existing facilities

4) Utilize mobile or temporary facilities

5) Lease commercially available facilities (e.g. parking lots)

6) Contract out the service function to a commercial enterprise (e.g. vehicle maintenance operations)

7) "Do nothing"

8) A combination of multiple alternative solutions

D.2.4 The "Do Nothing" Alternative

Throughout Section D.2, the "Do Nothing" alternative is to be considered. In the "Do Nothing" alternative, no facilities would be constructed to solve the identified problem or opportunity. This means that the problem would remain in the system or an opportunity would not be addressed. It does not necessarily mean, however, that no further development in the community would occur.

The "Do Nothing" alternative will be documented along with any other alternatives to the project which were examined.

The "Do Nothing" alternative may be recommended at any time during the design process prior to the commencement of construction. A decision to "Do Nothing" would typically be made when the costs of all other alternatives, both financial and environmental, significantly outweigh the benefits.

D.3 ENVIRONMENT

D.3.1 Description of the Environment

The following provides an overview of environmental factors to be considered when reviewing existing and future conditions, developing alternatives, and analyzing and evaluating them to determine the preferred alternative.

Although these descriptions are general, the proponent is required to describe the environment to be affected by a specific project in detail including the significant features which comprise each type of environment. It should be noted that potential environmental effects include both positive and negative effects. Review agencies and the public will therefore have an opportunity

to understand the specific environment affected by a given project while it is being planned. The list provided is general only and is intended to be developed on a project-specific basis reflecting the scope of the study area and federal, provincial, and municipal policies.

Transportation Environment:

- Existing transportation network
- Future transportation network

Land-Use Planning Objectives:

- Provincial
- Regional
- Municipal

Natural Environment/Natural Heritage Features:

- Natural heritage policies
- Fisheries and aquatic resources
- Vegetation and flora
- Wildlife resources and linkages
- Surface water
- Ground water
- Geotechnical
- Fluvial geomorphology

Social Environment:

- Existing communities
- Existing residential areas
- Recreational facilities
- Noise and vibration
- Air quality
- Aesthetics

Cultural Environment:

- Archaeological resources
- Built heritage features and cultural landscapes

First Nations/Aboriginal Peoples

- Lands

- Treaty rights
- Archaeological sites
- Land claims

Economic Environment:

- Commercial land-use
- Industrial land-use
- Agricultural land-use
- Preliminary cost estimates:
    - Capital costs
    - Property costs
    - Maintenance costs

Other:

- Utilities

D.3.2 Description of the Potential Effects on the Environment

The effects (both positive and negative) on the environment are to be identified and assessed based on the following process:

- Review of existing conditions within the study area
- Review of future conditions within the study area
- Assessment of the potential effects that alternatives may have on the factors identified in Section D.3.1.
- Identification of a technically preferred alternative based on the overall net effects
- Review with affected parties per the requirements of the Municipal Class Environmental Assessment

D.3.3 Mitigating Measures

D.3.3.1 Design

It is recognized that, overall, municipal transit offers many benefits to the social, natural, and economic environments in addition to transportation and land-use benefits. The Ontario Provincial Policy Statement outlines the major benefits of transit to the economy, urban form, and protection of natural resources.

Through the planning and design process described in this Class EA, however, it may be determined that, together with the benefits, certain projects may have some adverse effects on the environment. The Class EA process is intended to identify potential impacts and where possible,

to avoid them. However, in some cases, this may not be possible. In such situations, measures will have to be taken to either minimize or offset such effects. Actions taken to reduce the effects of a certain project on the environment are called "Mitigating Measures".

During design, the environment affected by a project will be established and the specific net effects identified. Measures which must be taken to minimize the negative effects will be worked out such that the design can be tailored to recognize them. Contract drawings and documents may then include special provisions to ensure the least impact on the environment. Appendix 2 sets out a table showing typical mitigating measures for potential adverse effects on the environment.

D.3.3.2 Construction

This Class EA describes the process by which the various alternatives are analyzed and the most suitable design is chosen. The construction stage presents another set of alternatives as to how the work will be undertaken.

Many projects which undergo the Class EA planning process will be carried out by contract let by competitive tender, and the contractor is normally the low bidder. The contractor will have estimated his costs and planned his method of operation during the tendering stage, subject to the specifications and special provisions in the contract and any relevant legislation.

Contractors differ in their approach regarding sequence of operation, techniques, methods of operation, type make and size of equipment utilized, and speed of operation. There is, however, a fairly general uniformity in construction operation, being the natural result of economic competition.

Some of these operations have potential for environmental impact, and where these can be anticipated in the design stage, 'special provisions' shall be written into the construction package. They shall spell out what can or cannot be done during specific operations. Unforeseen problems that arise during construction shall be addressed on the site, and the proponent's best judgement used to ensure that changes to the contract do not cause negative environmental impacts.

Staff responsible for inspecting the contractor's work must be made aware of such provisions, in order to ensure compliance during construction. It shall be the responsibility of the proponent to ensure that inspectors enforce compliance with the environmental provisions, as well as the traditional engineering provisions, of the construction package.

D.3.3.3 Policy and Guidelines

Throughout the planning and design process, and subsequently throughout the construction phase, the proponent is to comply with the policies and guidelines outlined by municipalities, or the provincial or federal governments in documents such as:

- Provincial policies, including:

  - Provincial Policy Statement (PPS)
  - The Planning Act
  - Places to Grow Act
  - Conservation Authority Policies and Regulations
- Related Provincial Plans, including:
  - Greenbelt Plan
  - Growth Plan for the Greater Golden Horseshoe
  - Niagara Escarpment Plan
  - Oak Ridges Moraine Plan
  - Parkway Belt Plan
  - Rouge North Management Plan
  - Rouge Park Master Plan
- Municipal policies, including:
  - Official Plans
  - Secondary Plans
  - Transportation Master Plans
  - Infrastructure Master Plans

In addition, federal requirements need to be addressed and coordinated where applicable, including:

- The Canadian Environmental Assessment Act (Canadian Environmental Assessment Agency)
- Navigable Waters Permit (Transport Canada)
- Fisheries Authorization (Department of Fisheries and Oceans)
- Funding (Transport Canada, Industry Canada)

APPENDIX 1

PROJECT SCHEDULES

i) Municipal Roads Projects

ii) Municipal Water and Wastewater Projects

iii) Municipal Transit Projects

SCHEDULES

STATUS OF MUNICIPAL TRANSIT PROJECTS UNDER THE CLASS ENVIRONMENTAL ASSESSMENT

DEVELOPMENT OF THE GENERIC LIST OF TRANSIT PROJECTS/ACTIVITIES AND THEIR ASSOCIATED SCHEDULES UNDER THE MUNICIPAL CLASS EA

The following schedules are intended to assist proponents in understanding the status of various projects.

The process for developing the listing of transit projects/activities and determining the associated project schedules will be documented in the Environmental Study Report dated _____ 2007 for a "Major Amendment to the Municipal Class EA Document to Include Transit Projects".

The following list of projects has been developed to recognize that the key types of transit projects/activities include:

- maintenance of facilities
- service operations
- linear facilities
- site specific facilities such as stations or maintenance facilities
- overall transit systems

Transit project schedules generally categorize the projects as follows:

Maintenance and Operations - *Schedule A*

Site Specific Projects - identified as either Schedule A/A+, A+/B, or B/C. Project schedule is determined by the adjacent land use. For example, if a project is adjacent to residential land-use or environmentally-sensitive area, it would receive a higher schedule than if it was adjacent to a less sensitive area (i.e. industrial or commercial). For the purposes of Projects #21-25 and #30-33, the term "environmentally-sensitive area" applies to the natural, social, cultural, and economic environments.

Linear Facilities
- localized improvements - *Schedule A+*
- minor modifications - *Schedule B*
- major modifications and new facilities - *Schedule C*

In some projects related to the construction or reconstruction of linear facilities, the determination of project schedule is based on the potential for environmental effects, where:

- Schedule A/A+ – no or minimal adverse environmental effects
- Schedule B – have the potential for some adverse environmental effects, where these effects are well understood from a technical perspective and are minor in nature and mitigation is well understood.

- Schedule C projects – have the potential for significant environmental effects

Transit System — Construction of new transit system encompassing the linear component of the transit facility and associated system elements is identified as a *Schedule C*

Regarding the term "significant", when referring to environmental effects a specific definition can not be provided since it is assigned a specific meaning according to the environmental factor area under consideration (e.g. natural, social , cultural, economic) and the applicable policies (at the federal, provincial, regional and municipal levels) as well as public and agency input. Accordingly, when initiating a project, the proponent will identify the potential for environmental impacts. To determine the potential for environmental impacts, proponents will likely require preliminary investigations, potentially involving specialists, to identify potential impacts of projects. This applies particularly with regards to natural environmental impacts (e.g. fisheries) and cultural environmental impacts (e.g. built heritage, archaeological).

APPLICATION ON A PROJECT-SPECIFIC BASIS

The types of projects and activities listed are intended generally to be categorized into Schedules A, A+, B and C with reference to the magnitude of their anticipated environmental impact. In specific cases, however, **a project may have a greater environmental impact than indicated by the Schedule and in such instances the proponent may, at its discretion, change the project status by elevating it to a higher schedule.** Consequently, in selecting the appropriate project schedule, it must be recognized that level of complexity will vary depending on the nature of the project. This is discussed in Section A.2.1.1. **Given the varying levels of complexity, the divisions among Schedules A, A+, B and C projects are therefore often not distinct.** While the Class EA document defines the minimum requirements for the environmental assessment planning, the proponent is responsible for "customizing" it to reflect the complexities and needs of a specific project.

The foregoing should be considered not only at the outset of project planning but as one proceeds through the process and reviews / confirms the project schedule.

Key considerations when screening potential effects are outlined in Appendix 3 and include requiring property, affecting watercourses, affecting fisheries, affecting significant natural heritage features (e.g. woodlots and wetlands), or having impacts which are considered significant to your municipality.

For example, a project may be a Schedule A. It may, however, have potential major impacts such as significantly affecting property or natural features (e.g. removing trees, affecting watercourses, affecting fisheries), or having other impacts which are considered significant in your municipality. Accordingly, while it may technically be a Schedule A, the proponent should carefully consider the appropriateness of that selection, since it would likely be more appropriately carried out as a Schedule B or C.

Take, for example, the construction of a new transit station in an industrial area not adjacent to a residential land use or environmentally-sensitive area. This is considered as a Schedule A+ project. However, there could be instances when this type of project could result in potential changes that may result in significant effects, for example, to adjacent businesses, institutions,

recreational areas, etc. In these situations it may be more appropriate for the proponent to plan the project as a Schedule B or C project.

A proponent may elect to undertake an individual environmental assessment should the magnitude of the project, the anticipated environmental impact of the project or its controversial nature warrant it. **Following the selection of the most appropriate Schedule, the proponent is encouraged to document their rationale for the selection.**

In selecting the most appropriate Schedule, proponents should bear in mind the requirement to plan large or extended projects in their entirety. Projects, for example, which are to be implemented in stages over an extended period of time shall be planned in their entirety at the time when the first stage is to be undertaken and **shall not be broken up, or piecemealed, into smaller components.**

The Schedules shall be viewed inclusively in order to ensure that the correct schedule is selected. The proponent shall review all applicable schedules to ensure the correct choice of Schedule. In cases where components of a single project fall within more than one Schedule, the more rigorous Schedule shall apply.

Overlap Between EA Approvals:

Where two or more components of a project are not covered entirely within the roads schedules, the water and wastewater schedules, or the transit schedules, it will be necessary to plan the project under the more rigorous of the schedules. For example, a project consisting of a new road or transit facility crossing a new dyke could not be planned in its entirety under the roads, the water and wastewater, or the transit schedules. In such cases, the proponent shall plan the project in accordance with all applicable requirements but may document the planning process in one Project File or ESR.

The decision to proceed under one set of schedules rather than another shall not be open to challenge nor be grounds for a request for a Part II Order.

Background Studies:

Background Studies are exempt from the Class EA process.

MUNICIPAL TRANSIT PROJECTS

SCHEDULE A/A+ - PRE-APPROVED ACTIVITIES:

Schedule A and A+ activities are Pre-approved. The proponent may proceed without following the procedures set out in any other part of this Class EA.

Schedule A

- generally includes normal or emergency operational and maintenance activities
- the environmental effects of these activities are usually minimal and therefore, these projects are pre-approved

Schedule A+

- generally includes: reconstruction for the same purpose, use, and at the same location; localized modifications; and site-specific facilities not in or adjacent to a residential land-use or an environmentally-sensitive area
- the environmental effects of these activities are usually minimal and therefore, these projects are pre-approved, however, the public is to advised prior to project implementation. The manner in which the public is advised is to be determined by the proponent.

Projects which take place partly outside the proponent's municipal boundary shall be planned at least under Schedule B, other than normal or emergency operational activities which shall be Schedule A.

SCHEDULE B - ACTIVITIES SUBJECT TO THE SCREENING PROCESS:

Schedule B activities, having completed Phases 1 and 2 of the planning process, are Approved Subject to Screening. If the screening process through Phases 1 and 2 results in other requirements of this Class EA being applicable, then those requirements must be fulfilled.

For Schedule B activities, the proponent shall contact specific agencies and potentially affected members of the public (see Screening Criteria under Appendix 3). For example, if a road widening project for exclusive transit lanes affected a motel and associated tourist facilities then the proponent should contact the Ministry responsible for tourism and recreation.

Agreements made or commitments given by the proponent to affected agencies or members of the public during the course of the screening process must be followed through and implemented or else the conditions of the EA Approval will be deemed to be unfulfilled. If a party has a concern that cannot be resolved by discussion and negotiation between that party and the proponent, then the procedure to request an order may be invoked (see Section A.2.8). By the nature of Schedule B activities, however, it is anticipated that this will not occur frequently.

Two points of contact with the public are mandatory under the screening process. The proponent may select the method of public notification which best suits the circumstances of the specific

project under consideration (see Exhibit A.2 - Flow Chart and Section A.3.5 Public Consultation).

SCHEDULE C - ACTIVITIES SUBJECT TO THE FULL PLANNING PROCESS OF THE CLASS EA:

Schedule C activities shall follow the planning procedure outlined in this document.

TABLES:

The following tables indicate under which Schedule a project is expected to be categorized.

Description of Project *(Note: The Schedules shall be reviewed inclusively to ensure that the correct schedule is selected.)*	Class EA Project Schedule			
	Pre-approved		B	C
	A	A+		
MAINTENANCE AND OPERATIONS				
1. General maintenance of all transit-related facilities including but not limited to: • Normal or emergency operation and maintenance of transit facilities and related facilities • Resurfacing, patching and frost heave treatment with no change in footprint • Rehabilitation and internal modifications to existing buildings and facilities • Plowing and sanding of transit facilities and related facilities • Shaping and cleaning of existing roadside ditches and culverts • Parking lot and lighting rehabilitation; • Building rehabilitation or replacement; • Facility surveillance, control systems; etc. • Snow and de-icing operations that comply with MOE's Guidelines	X			
2. General service operations provisions including but not limited to: • Service Changes and Operational Changes on existing routes; • Temporary service to special events on non-regular routes; • Short-term changes to existing routes (both mode and location); • New, extended or expanded bus routes on existing roads;	X			
3. New, extended or expanded transit stops (including roadside shelters, on road bays, and platforms).	X			
MODIFICATION AND RECONSTRUCTION OF EXISTING FACILITIES				
4. Construction of localized operational improvements at specific locations (i.e. stopping lanes, access lanes, turning lanes, signal priority, queue jump lanes, on-street bus bays and roadway access ramps etc) with no or minimal adverse environmental effects.		X		
5. Construction of localized operational improvements at specific locations (i.e. stopping lanes, access lanes, turning lanes, signal priority, queue jump lanes, on-street bus bays and roadway access ramps etc) with the potential for some adverse environmental effects.			X	
6. Installation, construction or reconstruction of traffic control devices (i.e. signing, signalization) with no or minimal adverse environmental effects	X			
7. Installation, construction or reconstruction of traffic control devices (i.e. signing, signalization) with the potential for some adverse environmental effects			X	
8. New Intelligent Transportation System elements for transit systems	X			
9. Installation of safety projects (i.e. lighting, glare screens, safety barriers, energy attenuation) with no or minimal adverse environmental effects.	X			
10. Installation of safety projects (i.e. lighting, glare screens, safety barriers, energy attenuation) with the potential for some adverse environmental effects.			X	

Description of Project *(Note: The Schedules shall be reviewed inclusively to ensure that the correct schedule is selected.)*	**Class EA Project Schedule**			
	Pre-approved		**B**	**C**
	A	**A+**		
11. Culvert repair or replacement where the capacity of the culvert is not increased beyond the minimum municipal standards or capacity required to adequately drain the area, whichever is greater and where there is no change in drainage area.	X			
12. Culvert repair or replacement where the capacity of the culvert or drainage area is changed.			X	
13. Reconstruction of water crossing where the reconstructed facility will be for the same purpose, use, capacity and at the same location as the facility being reconstructed (capacity refers to hydraulic capacity).		X		
14. Reconstruction of water crossing where the reconstructed facility will not be for the same purpose, use, capacity and at the same location as the facility being reconstructed (capacity refers to hydraulic capacity).			X	
15. Reconstruction of linear components of a transit system where the reconstructed facility will be for the same purpose, use, and at the same location as the facility being reconstructed. (e.g. resurfacing of an existing Reserved Bus Lane (RBL) or reconstruction of existing streetcar track)		X		
16. Reconstruction, widening or expansion of linear components of a transit system where the reconstructed facility will not be for the same purpose, use, and at the same location as the facility being reconstructed (e.g. a change from an existing Reserved Bus Lane (RBL) that is separated from general purpose lanes by signage and pavement markings only to a Reserved Bus Lane (RBL) in an exclusive right-of-way (i.e. physically separated from general purpose lanes)				X
17. Redesignation of an existing General Purpose Lane (GPL) or High Occupancy Vehicle (HOV) lane to a Reserved Bus Lane (RBL) through signage and pavement marking modifications (i.e. not requiring physical construction).		X		
18. Reconstruction of linear components of a transit system for different vehicle technology where there is no change in footprint or general purpose traffic operations.			X	
19. Reconstruction of stations, maintenance/storage facilities, passenger pick-up/drop off areas, park and ride lots, etc. where no land acquisition is required.	X			
20. Expansions, improvements and modifications to existing stations maintenance and storage facilities, passenger pick-up/drop off areas, park and ride lots, etc. not in or adjacent to residential land-use or an environmentally-sensitive area including natural heritage features, cultural features, recreational or other land uses.	X			
21. Expansions, improvements and modifications to existing stations maintenance and storage facilities, passenger pick-up/drop off areas, park and ride lots, etc. in or adjacent to residential land-use or an environmentally-sensitive area including natural heritage features, cultural features, recreational or other land uses.		X		
CONSTRUCTION OF NEW FACILITIES				
22. Construction of new stations not in or adjacent to residential land-use or an environmentally-sensitive area including natural heritage features, cultural features, recreational or other land uses.		X		
23. Construction of new stations in or adjacent to residential land-use or an environmentally-sensitive area including natural heritage features, cultural features, recreational or other land uses.			X	

Description of Project *(Note: The Schedules shall be reviewed inclusively to ensure that the correct schedule is selected.)*	**Class EA Project Schedule**			
	Pre-approved		**B**	**C**
	A	**A+**		
24. Construction of new passenger pick-up/drop off areas, and park and ride lots not in or adjacent to residential land-use or an environmentally-sensitive area including natural heritage features, cultural features, recreational or other land-uses.	X			
25. Construction of new passenger pick-up/drop off areas, and park and ride lots in or adjacent to residential land-use or an environmentally-sensitive area including natural heritage features, cultural features, recreational or other land-uses.			X	
26. Widening of an existing road to create new transit lanes for bus or light rail.				X
27. Construction of a new electrical substation associated with an existing transit facility		X		
28. Construction of a transit loop		X		
29. Construction of new grade separation.			X	
30. Construction of new maintenance facilities not in or adjacent to residential land-use or an environmentally-sensitive area including natural heritage features, cultural features, recreational or other land-uses.			X	
31. Construction of new maintenance facilities in or adjacent to residential land-use or an environmentally-sensitive area including natural heritage features, cultural features, recreational or other land-uses.				X
32. Construction of new storage facilities not in or adjacent to residential land-use or an environmentally-sensitive area including natural heritage features, cultural features, recreational or other land-uses.		X		
33. Construction of new storage facilities in or adjacent to residential land-use or an environmentally-sensitive area including natural heritage features, cultural features, recreational or other land-uses.			X	
34. Construction of new Transit System (i.e. involving construction of new infrastructure. For implementation of new transit services not requiring construction of new infrastructure, see Project #2)				X
MISCELLANEOUS PROJECTS				
35. Construction of noise barriers (i.e. structures such as walls and berms or a combination of the two).		X		
36. New fence installations not associated with another project.	X			
37. Utility removal, modification or relocation for safety or aesthetic purposes.	X			
38. Restoration of a facility immediately after a natural disaster provided the facility is for the same purpose, use, and at the same location.	X			
39. Any Project which would likely otherwise be subject to this Class EA and has fulfilled the requirements outlined in Section A.2.9 of this Class EA and for which the relevant Planning Act documents have been approved of have come into effect under the Planning Act, R.S.O. 1990, Chapter 13, as amended.	X			
40. Temporary, not permanent, activity with a defined duration and with the intent to go back to the original condition, unless it is determined to make it a permanent condition which would have to be approved through the Class EA process where applicable.		X		
41. Decommissioning of existing major transit facilities		X		