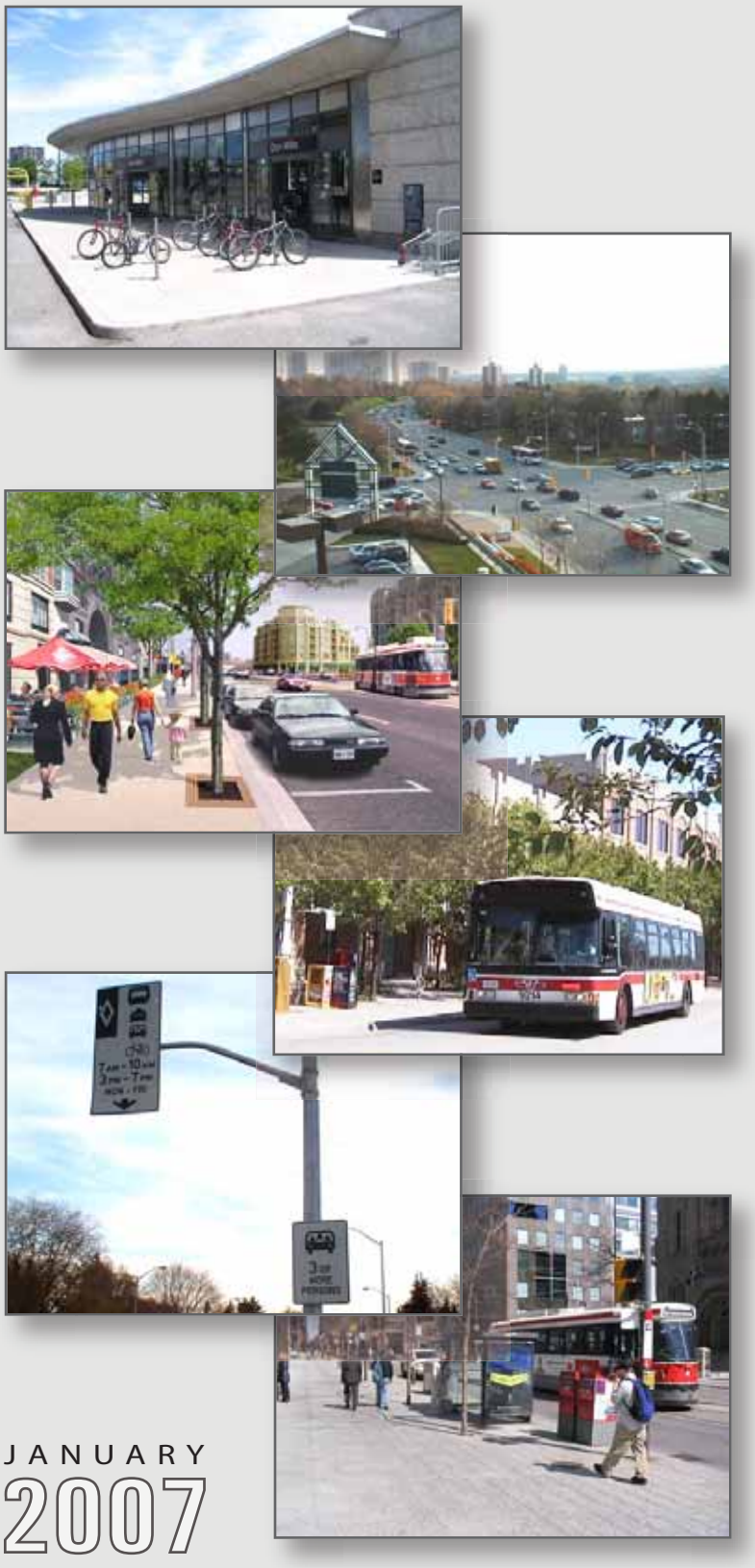
DON MILLS ROAD

TRANSIT IMPROVEMENTS

Environmental Assessment
Terms of Reference



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TORONTO

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1. INTRODUCTION

1.1 Purpose of the Terms of Reference

This Terms of Reference (ToR) sets out the requirements for preparation of an individual EA study of public transit improvements in the Don Mills Road corridor, in accordance with the Environmental Assessment Act (EAA).

This ToR is being prepared in accordance with section 6(2)(c) of the EAA. The EA study will be prepared in accordance with section 6.1(3) and those requirements for the preparation of the EA as set out in this ToR. The EA components as set forward in this ToR will build upon work already completed during the Don Valley Corridor Transportation Master Plan (DVCTMP) (Phases 1 and 2 of the Municipal Class EA process) approved by City Council at its meeting of May 17, 18, 19, 2005.

Once approved by the Minister of the Environment, this ToR will provide the framework for preparing the EA and how to consult during the development of the EA. To satisfy the information requirements set out in section 6.1 of the EAA, the ToR sets out what is to be included in the EA. This information includes:

- A description of the purpose of the undertaking;
- A description of and a statement of the rationale for the undertaking, and alternative methods for carrying out the undertaking;
- A description of the existing environment potentially affected by the undertaking;
- A description of the effects that will be caused or that might reasonably be caused to the environment;
- A description of the actions necessary or that may reasonably be expected to be necessary to prevent, change, mitigate or remedy the effects upon, or the expected effects upon the environment;
- An evaluation of the advantages and disadvantages to the environment;
- A description of the consultation process undertaken during the EA preparation; and
- A description of other approval requirements including Canadian Environmental Assessment Act (CEAA) requirements, if applicable.

1.2 Proponent and Study Team

The City of Toronto and TTC are co-proponents for this Study. The City Planning Division, specifically the Transportation Planning section (Metro Hall office) will be responsible for the day-to-day project management activities, assisted by TTC (Service Planning Department) staff. City Transportation Services Division, Transportation Planning (District Offices), and Public Consultation and Community Outreach staff will also form part of the Project Team providing support on study direction and management. A multi-disciplinary consulting team will be retained to assist in carrying out the study, and be responsible for much of the data collection, technical analysis, and development and evaluation of alternatives.

1.3 Transit Policy and Planning Context

Both within the City of Toronto and the entire GTA, road congestion is perceived as a significant issue that adversely affects mobility, land use and development, economic conditions, safety, public health, and various other elements of the social and natural environment. Road congestion within the Don Valley corridor in the City of Toronto is a particular concern as it relates to these impacts.

The Don Valley corridor serves person trips originating and destined to areas well to the east, west and north of Toronto, as well as trips made solely within the corridor. Thus, in considering alternatives for increasing passenger carrying capacity and reducing congestion (in relative terms), there is the need for a coordinated transportation planning approach among responsible agencies in defining solutions which incorporate common policies and priorities.

1.3.1 City of Toronto Official Plan

The new City of Toronto Official Plan (The Plan), approved by the Minister of Municipal Affairs and Housing in October 2002, is now in effect by Order of the OMB on July 6, 2006, with the exception of two housing policies (Policies 3.2.1.5(b) and 3.2.1.9), the definitions of affordable rental housing and affordable ownership housing, Policy 3.1.2.5 (Built Form), Policy 4.2.3(c) (Apartment Neighbourhoods) as well as the floodplain "Special Policy Areas" policies. The Policies in the former Official Plans and Metro Plan respecting these policy areas remain in effect. For the purposes of this EA, The Plan provides the municipal policy context, except where noted above (and as subsequently modified by the OMB as hearings proceed on those components still under review or appeal).

The Plan forecasts a 15% to 20% growth in population and employment over the next 20 years. This projected growth is too large to be accommodated by the existing road system alone. Thus, The Plan stresses the need for land-use intensification and mixed use development in ways that reduce the overall need for travel and dependence on the private automobile while increasing the competitiveness of alternative means of transportation such as public transit, walking, and cycling, in conjunction with various transportation demand management measures. The Plan assumes little expansion of the major road system, and reinforces public transit as the principal means of achieving land use objectives for more compact, diversified, urban form.

The Plan directs growth to the Downtown, Centres, Avenues and Employment Districts, as contemplated by the provincial Growth Plan for the Greater Golden Horseshoe (GGH) – 2006, in terms of Urban Growth Centres (Centres in The Plan), Intensification Areas, Intensification Corridors (Avenues in The Plan) and Employment Areas. The Minister of Municipal Affairs and Housing inserted targets into The Plan based on the previous regional forecast by the Office of the GTA, the City and Regional Municipalities. These targets match or exceed the forecast in Schedule 3 of the Growth Plan. For the purposes of this EA, the Plan provides the municipal policy context for proceeding with the study.

Supported by several specific background reports, the Plan presents a transportation vision supporting growth. Some of the main attributes of the vision include:

a) Integrated land use and urban design promoting fewer and shorter trips;

b) Public transit service that is more competitive with the private automobile;

c) Improved transit accessibility for the disabled and seniors;

d) Traffic engineering and street design that encourages walking and cycling; and

e) Reduced air pollution and emissions from transportation.

Higher order transit and transit priority measures are identified among the means of achieving these objectives. It also identifies the need to protect for incremental expansion of the transit system as demand justifies and funding becomes available. The Plan therefore recommends the

implementation of "Higher Order Transit Corridors"[1]. Situated primarily along major arterial roads, the corridors would achieve improved speed, reliability and capacity. Incorporating similar specific features, "Surface Transit Priority Segments", also identified in the Plan, would see greater priority for transit vehicles at signalized intersections and other priority measures introduced on selected transit routes such as reserved transit lanes and/or on-street parking restrictions. Don Mills Road is identified by the Plan as both a Higher Order Transit Corridor and Transit Priority Segment.

1.3.2 Government of Ontario – Places to Grow / Growth Plan

At the provincial level, key policies/plans providing context for this EA include the Provincial Policy Statement (PPS), the Places to Grow Act (2005) and the associated regional "Growth Plan for the Greater Golden Horseshoe" (2006). The Province has committed to implementing policies and pursuing initiatives to address transportation deficiencies associated with growth and urban sprawl in the GGH. The Growth Plan directs that "transit will be the first priority for transportation infrastructure planning and major transportation investments" and that transit infrastructure will be used to shape growth and support the Growth Plan's implementation. The Growth Plan is rooted in the principles of "sustainability" and envisages increasing intensification of the existing built-up area, with a focus on transit-supportive urban "growth centres".

The Growth Plan identifies a series of "growth centres", within the City of Toronto and in the vicinity of the study area for this EA, that will be focal points for accommodating new housing and employment through initiatives that offer attractive new living options within easy access to community services and other amenities. These centres will require the need for, and support improved public transit services in the surrounding area.

The Growth Plan sets out policies for infrastructure development and renewal, including policies governing transportation infrastructure. Some of the objectives of the Growth Plan, affecting the provision of transportation services and facilities include:

- Reducing development pressures on agricultural lands and natural areas by directing more growth to existing urban areas;
- Ensuring that new development is planned creating communities that offer more choices in housing, transportation services including improved public transit, community services and other amenities that are closer to where people live;
- Establishing an integrated transportation network;
- Reducing car dependency, thereby contributing to improved air quality;
- Providing connectivity among transportation modes for moving people;
- Promoting transit investment;
- Encouraging the most financially and environmentally appropriate modes/technologies for trip-making; and
- Providing for the safety of system users.

1.3.3 TTC Ridership Growth Strategy

In 2003, TTC issued its Ridership Growth Strategy to fulfill the City of Toronto Official Plan's vision for future transit services. The Strategy involves a comprehensive, staged approach to service improvements, fare initiatives and the implementation of new facilities to accommodate and increase ridership over the next 10 years. The Strategy also supports the main thrust of The Plan's

[1] Higher order transit refers to transit service(s) operating at higher capacity and average speeds than typical all-stops surface transit services. It may include a range of possible vehicle technologies, typically wheel or rail based, and operating on facilities where priority for transit vehicles is provided. Examples include bus transitways, light rail and subway.

reurbanization policies and concludes that more trips could be diverted to public transit given a commitment to implement policies that support efficient transit operations and transit-oriented development. The TTC strategy, in particular, stresses the necessity of implementing surface rapid transit on those "higher-order" transit corridors identified in The Plan. These include surface rapid transit routes and additional transit signal priority measures on several routes that fall within the study area, including Don Mills Road.

1.3.4 Region of York Transportation Master Plan – VIVA

The Region of York is implementing major components of its Transportation Master Plan, including a network of bus rapid transit services, components of which are intended to serve existing TTC terminals on the Yonge and Sheppard subway lines. In particular, York Region's "York Rapid Transit Project" (now called VIVA), is operating a short-term "Quick Start" program, part of which would provide a new bus rapid transit service to the Don Mills station on the Sheppard subway, a service that would increase passenger capacity within the Don Valley Corridor. The majority of the VIVA services commenced operation in the fall of 2005. EA studies have been completed and design activities are ongoing for Phase 2 implementation of services (i.e., dedicated transitways) in its 3 major transit corridors (Yonge Street, Highway 7, and Markham North-South Link). The Region of York is also currently undertaking a process to update its Transportation Master Plan, with the City of Toronto participating as a stakeholder on the study Technical Advisory Committee.

1.4 City Council Direction Regarding the Terms of Reference

In order to seek input into the Terms of Reference process and endorsement to proceed with completion of the ToR document and submission to the Minister of the Environment, a Draft ToR and accompanying Staff Report (dated August 15, 2006) was submitted to City of Toronto Planning & Transportation (P&T) Committee for consideration at its meeting of September 5th, 2006. The report was forwarded by P&T, with its recommendations, to City Council for consideration at Council's meeting of September 25, 26 and 27, 2006

Both P&T and City Council accepted the report subject to the recommendations documented below. The following is an extract from the City Council Consolidated Clause (i.e., Decision Document) regarding the Staff Report that was submitted for consideration.

"City Council on September 25, 26 and 27, 2006, amended this Clause by deleting Recommendation (1) of the Planning and Transportation Committee and replacing it with the following:

(1) the study be of transit improvements for a continuous service between Don Mills Station (Sheppard subway) and the Downtown Core, to be carried out as an integrated and co-ordinated environmental assessment study of this continuous transit service along with the environmental assessments for the Waterfront and on Kingston Road; in particular, the combined environmental assessments will examine and evaluate transit needs and connections. The Chief Planner and Executive Director is directed to modify the Terms of Reference for the Don Mills EA to reflect the description of the aforementioned undertaking and the integration and co-ordination between the EAs, which will include exchange of public/stakeholder input, updates and links in public consultation processes and consistency of evaluation criteria;

Council authorize staff to submit the Draft Terms of Reference for the study to the Minister of the

Environment for approval, following the adoption of this report.

This Clause, as amended, was adopted by City Council".

The Terms of Reference was subsequently modified to reflect Council's direction. Among the modifications, both the Purpose of the Undertaking (Section 2.3) and the Description of the Undertaking (Section 3) were revised. With respect to the issue of coordination with the Waterfront (East) Transit EAs, a new Section (2.2) has been added that reflects the elements for coordination and integration between the EAs.

2. PURPOSE AND RATIONALE FOR THE UNDERTAKING

2.1 Background – Don Valley Corridor Transportation Master Plan

In May 2005, Toronto City Council adopted the recommendations of the Don Valley Corridor Transportation Master Plan (DVCTMP). The Master Plan, prepared in cooperation with TTC, GO Transit and the Region of York, investigated options to increase person-carrying capacity in the corridor, extending from Steeles Avenue to Lake Ontario and from Leslie Street/Bayview Avenue to Victoria Park Avenue. The DVCTMP identified a number of transportation problems in the corridor and recommended a wide range of planning alternatives to address these problems.

The DVCTMP was completed as a Master Plan under the Municipal Class EA process including a full public consultation program. By doing so, the DVCTMP completed Phase 1 and 2 of the Class EA process. The DVCTMP provides the framework and contextual analysis for the Don Mills Road Transit Improvements.

The DVCTMP identified that the increase in travel demands forecasted for 2011 in the Don Valley corridor cannot be met by a continuation of current travel trends, nor exclusively by currently planned public transit service improvements (e.g. by TTC, GO, York Region). The projected increase in travel demand will contribute to longer travel times and further congestion in the corridor if current travel patterns remain the same and significant transit and traffic operations improvements are not implemented. Due to the physical, environmental and fiscal constraints of increasing capacity of the existing road system, greater transit usage and increased vehicle occupancy is required.

The DVCTMP identified, screened and evaluated a "long list" of 108 planning alternatives to address the needs for increased transportation capacity in the Don Valley corridor. Of these alternatives, 72 were "short-listed" for further evaluation, subsequently resulting in 9 recommended key initiatives of the DVCTMP. Depending on the initiative, they may either require additional EA review (where required), additional operational study or immediate implementation. Among the initiatives identified for further EA review and as a "High Priority" element of the Master Plan, is the introduction of improved, higher order (TTC) transit service on Don Mills Road.

Exhibit 2-1 illustrates the general relationship between the recommended DVCTMP Master Plan initiatives and this EA study for transit improvements on Don Mills Road. A copy of the *DVCTMP Summary Report* is provided within the Supporting Documentation to this ToR (under separate cover).

The proposed new Don Mills Road transit service would form part of a larger network of complementary transit improvements also identified by the DVCTMP as necessary to satisfy the forecast travel demands in the corridor. These other preferred transit improvements are:

- York Region Transit express bus service and VIVA cross-boundary bus service (now being implemented);
- Additional commuter parking at TTC and GO Transit stations (planned);
- Increased GO Rail service frequency on Richmond Hill and Stouffville lines (now being implemented);
- New GO Transit Bus Rapid Transit Services (planned); and
- New GO Rail Station near Eglinton Avenue (proposed; subject to separate EA study).

The DVCTMP concluded that high quality transit service along Don Mills Road would serve existing and future demands as well as contribute to a higher share of trips made by transit within the corridor and to major employment destinations in and adjacent to the corridor. The North Downtown (the downtown area north of Dundas Street) was specifically identified as a major travel market (destination) where there is a significant demand for trips originating from locations within the Don Valley corridor, but the connection is not well served by fast, reliable transit service.

In order to identify the potential capacity benefits and cost-effectiveness of a potential higher order Don Mills Road transit service, the DVCTMP included preliminary analysis of potential corridor options for a service (assumed to be Bus Rapid Transit), from Don Mills Station (Sheppard subway) to the Bloor-Danforth subway and to the Downtown, thus serving two separate major transit markets (North Downtown and Downtown Core, respectively) All the corridor options identified the service as being located on the existing Don Mills Road for the section north of Overlea Boulevard. South of Overlea Boulevard, several potential corridor and routing options were identified (see Figures 6 through 9 in the *DVCTMP Summary Report*).

For the various corridor options, the analysis included a preliminary assessment of:

- Potential new transit ridership;
- Costs/cost-effectiveness (capital and operating costs);
- Corridor capacity benefits; and
- Broad physical and environmental effects on:
  - traffic and transit operations;
  - public safety;
  - property;
  - neighbourhood access/through traffic; and
  - natural environment (amount of open space affected; sensitive areas affected)

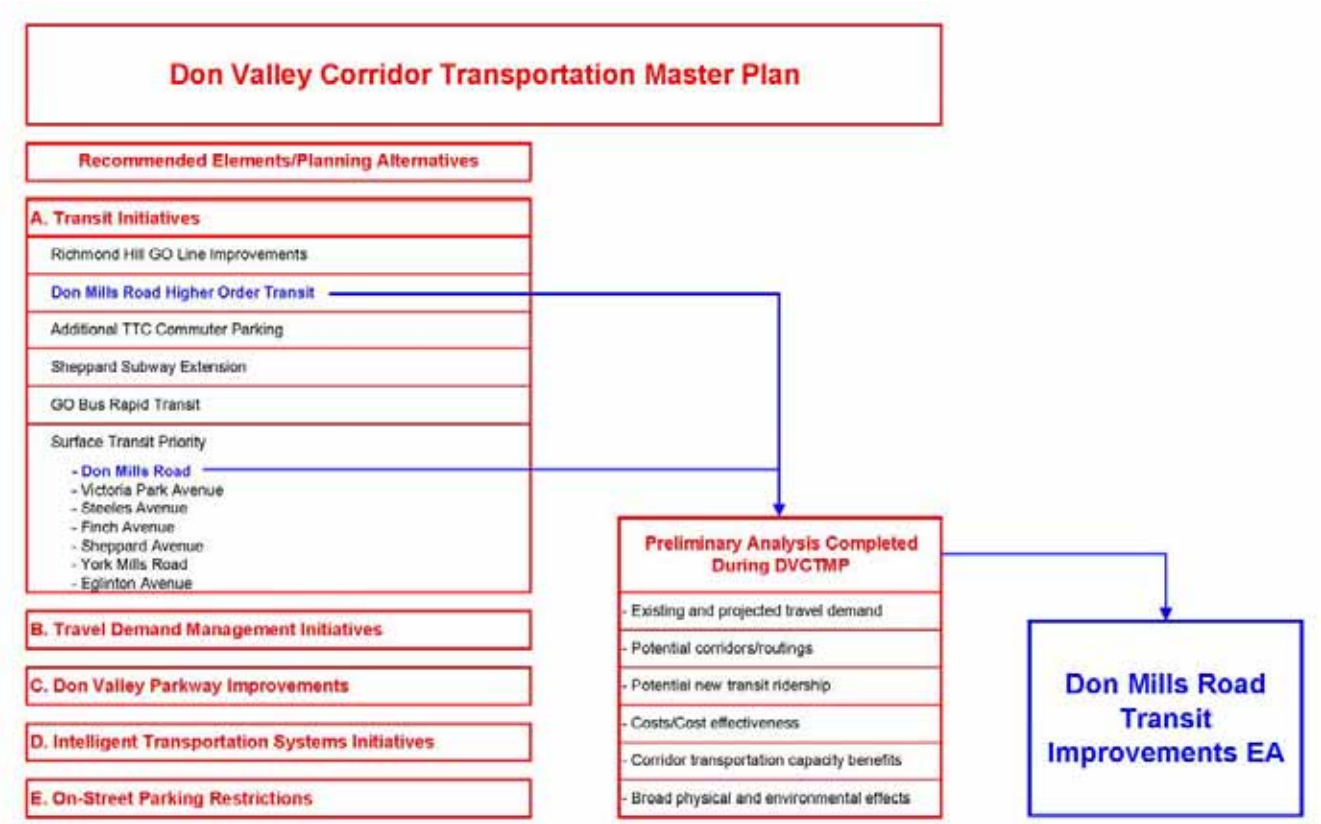
Based on the assessment results, the DVCTMP identified corridor the options to the Bloor-Danforth subway and to the Downtown Core. Both services were recommended as High Priority elements of the DVCTMP. However, improved service to Bloor-Danforth subway was recommended for Stage 1 implementation (0-3 years) whereas improvement to the Downtown Core was identified for Stage 2 implementation (4-10 years).

Further details of the preliminary assessment are available in Section 6.10 of the *DVCTMP Summary Report.*

The DVCTMP provided an overview of the current conditions and projected travel needs in the Don Valley corridor, and identified transit improvements in the Don Mills Road corridor as one of the recommended planning alternatives. It also recognized that additional environmental assessment review for the initiative would be required. As the starting point for the Don Mills Road Transit Improvements EA, the current conditions and projected travel demand needs will be updated to further define the preferred transit (planning) alternative. The EA study will utilize, update and refine

the Master Plan analysis where necessary, and provide additional supplementary analysis specific to the Don Mills Road corridor. The planned EA work plan activities are discussed in more detail in Section 5 of this ToR.

Exhibit 2-1: Relationship between DVCTMP and the Don Mills Road Transit Improvements EA



2.2 Relationship to the Toronto Waterfront (East) Transit Environmental Assessments

In conjunction with the Toronto Waterfront Revitalization Corporation (TWRC), the TTC is currently undertaking three separate but inter-related Individual EA studies for transit improvements to support planned development in three Toronto waterfront areas just east of the Downtown core, specifically: West Don Lands, Port Lands and East Bayfront. Ultimately, the EA studies will identify a preferred approach to providing an effective transit network to serve these new waterfront communities. Transit in the three precincts will be interconnected and will eventually form a continuous system linked to the Downtown core, the subway system, the grid of local transit routes (existing and proposed) in the area, and the GO commuter rail system. The transit improvements for Don Mills Road will comprise one of the services to be linked with new transit improvements serving the three new waterfront communities. Exhibit 2-2 illustrates the study areas for these TTC-TWRC Waterfront (East) Transit EAs and the Don Mills Road Transit EA.

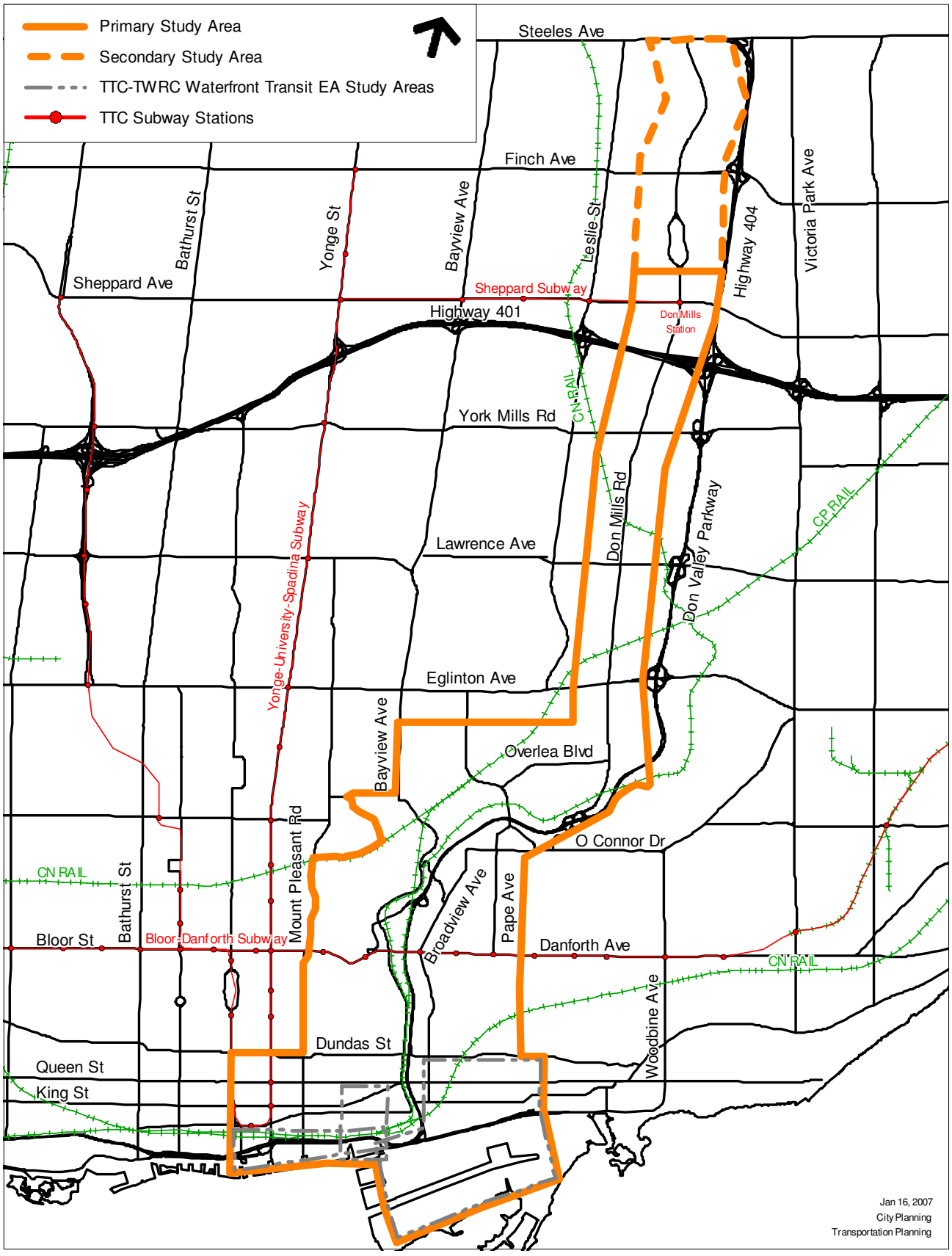
During the development of the DVCTMP, the approach and timing for identifying transit needs in the three waterfront areas was not yet known. Any potential review of transportation needs in these areas was assumed to occur as part of the overall assessment of needs for the larger central Toronto Waterfront. As a result, the analysis and evaluation of higher Don Mills Road transit corridor alternatives south of the Bloor-Danforth subway completed during the DVCTMP did not take into account the potential for improved services in the waterfront areas and their effect on improving

transit capacity to the Downtown core. Instead, the analysis of potential transit benefits (such as potential new ridership) for the Don Mills Road transit corridor alternatives serving Downtown were analyzed based on existing transit services to/from Downtown and the three waterfront areas.

Due to the relationship between the study areas for the studies, and potential overlapping of proposed transit services, the TTC and City of Toronto recognized the need to coordinate EA activities for the three TTC-TWRC studies with those of the Don Mills Road Transit Improvements EA. This EA will attempt to ensure that both studies:

- Utilize a consistent travel demand forecasting approach, data and assumptions to be used in the analysis of service needs and evaluation of alternatives;
- Utilize consistent methods for analysis of alternatives common to each study;
- Utilize consistent evaluation criteria and indicators/measures;
- Share public/stakeholder input affecting both studies; and,
- Share updates and links in the public consultation processes.

Exhibit 2-2: Study Areas



2.3 Purpose of the Undertaking

The purpose of this EA study is to assess transit improvements in the Don Mills Road corridor for continuous service between Don Mills Station (Sheppard Subway) and the Downtown Core and Toronto Waterfront, including integration with other transit services such as the Bloor-Danforth subway.

The assessment of transit improvements will be done by:

1. Updating and expanding upon the existing and future travel needs assessment work completed as part of the DVCTMP, incorporating the travel analysis being completed by the TTC-TWRC Waterfront Transit EAs. Based on the outcome of this first phase of the study, the preferred transit alternative(s) will be further defined.

2. Identifying and assessing the transit service and infrastructure improvement alternatives (i.e., alternative methods) in the Don Mills Road corridor for the transit alternative(s) determined during the first phase as noted above.

The study purpose includes the following specific objectives:

- To address existing and projected travel demand needs to, from and within the study area, by providing frequent, quick, and more reliable transit service thereby increasing the potential for a higher share of trips made by transit within the corridor;
- To respond to growing automobile dependency in the Don Mills Road corridor by increasing transit capacity, transit access, convenience and service reliability with minimal adverse impact on the natural and social environment;
- To increase service integration opportunities with other TTC, GO Transit, and York Region (York Region Transit (YRT) and VIVA), and other inter-regional transit providers;
- To identify opportunities to improve the pedestrian and cycling environment, facilities, and multi-modal connections in the corridor; and
- To be consistent with municipal and provincial policy objectives for more livable, compact, pedestrian and cycling oriented communities by providing improved, high quality public transit services.

As a major north-south arterial link in the Don Valley Corridor (DVC), the transit services on Don Mills Road must also provide the connections to the TTC network services that cross it. Identifying service integration locations and opportunities to high frequency services along major roadways such as Eglinton Avenue, Lawrence Avenue, Bloor-Danforth and others is a major component of the study. Consideration regarding the interface between various other transit service providers (YRT/VIVA, GO Transit) will also be provided and incorporated into the study.

3. DESCRIPTION OF THE UNDERTAKING

This EA study will assess transit improvements in the Don Mills Road corridor for continuous service between Don Mills Station (Sheppard Subway) and the Downtown Core and Toronto Waterfront, including integration with other transit services such as the Bloor-Danforth subway.

This EA is unique in that the transit needs for the South section of the corridor are subject to review as part of two different environmental assessments; this Don Mills Road Transit EA and the TTC-TWRC Waterfront (East) Transit EAs (three separate individual environmental assessments). Attention must be taken in assessing both the needs and alternatives that provide necessary

connectivity for the section between the Bloor-Danforth subway and the three waterfront areas in order to confirm the preferred transit alternative and proposed undertaking for this EA. While the DVCTMP and the Waterfront (East) Transit EAs each provide some analysis of this area, a updated travel needs assessment is required to identify the alternatives that satisfy medium and long-term travel demands for the South section of the study area. A comparative evaluation of the alternatives will be done on the basis of forecast transit ridership, integration with other transit services, costs, cost-effectiveness of services, service continuity, and capacity benefits. The results of this evaluation will provide the basis for identifying the design alternatives for the EA.

It is possible that the findings of the evaluation may support improvement alternatives, whole or in part, that do not require EA approval. In this case, the "proposed undertaking" subject to EA review would be defined only as that component of the alternative that requires EA approval. Where there is a potential interface between improvements that are subject to EA approval and improvements not requiring EA approval, protection for future integration of these improvements will be among the key evaluation criteria used in assessing the design alternatives during the EA.

The study limits for this EA study do not include the section of Don Mills Road north of Sheppard Avenue. In consultation with Region of York staff, City/TTC staff determined that in order to properly assess the service integration opportunities for this section and develop transit infrastructure improvements connecting to VIVA services across Steeles Avenue, the advancement of York Region's planning, design and implementation commitments for Leslie Street (Don Mills Road north of Steeles Avenue) and their Markham North-South Transit Link project north of Steeles Avenue is required. Transit improvements between the Sheppard subway and Steeles Avenue or further north would be therefore be subject to a separate EA review.

To ensure that specific options for future transit improvements on Don Mills Road north of Don Mills Station are not precluded as part of the future EA, the ability to protect and provide future integration with services north of Sheppard Avenue will be among the key evaluation criteria to be used in the assessment of the design alternatives for this EA for transit improvements south of Don Mills Station.

4. DESCRIPTION OF THE ENVIRONMENT AND POTENTIAL EFFECTS

4.1 Study Area

Exhibit 2-2 illustrates the overall project study area, including primary and secondary study areas. The primary study area has been determined based on the following considerations:

1. Review of the study area used during the DVCTMP study;
2. Review of potential locations of concern as identified during the DVCTMP and ToR process for this EA study;
3. General area within which corridor and alignment/configuration alternatives can be developed within the geographic corridor without direct effects on, or displacement of existing physical, natural or other environmental features/conditions; and
4. Anticipated environmental effects, both positive and negative.

The primary study area boundaries represent the area most likely to be potentially affected (positively or negatively) by the various project alternatives. The identified boundaries will be evaluated and refined (if necessary) during the EA. This is expected to occur early in the study process.

A secondary study area is also identified due to nature of transit services and the need for service integration/continuity beyond the primary study area.

The inventory of natural environmental, heritage, ecosystems features will also assist in defining the study area(s). Updated inventory data and mapping will be obtained during the EA study from the appropriate government agencies, including the City of Toronto, Toronto and Region Conservation Authority (TRCA), Ministry of the Environment (MOE), Ministry of Natural Resources (MNR) and Ministry of Culture.

During the EA study, it may be necessary to modify the defined primary study area depending on issues or effects that may be identified. This will take place in consultation with the public, affected parties and relevant government agencies.

4.2 Existing Conditions

Within the City of Toronto, Don Mills Road is a heavily used major arterial road link in the network of transportation facilities and services serving the DVC, as defined in Section 2.1. Person trips using Don Mills Road originate from a wide area of the Greater Toronto Area (GTA). These trips are accommodated and concentrated within this corridor, resulting in congested conditions, especially during peak periods, when demand on existing facilities often exceeds the practical capacities. Don Mills Road serves a high volume of automobiles, transit vehicles and commercial vehicles in and out of central Toronto and is also regularly used as major alternate route for private vehicles during incidences of heavy congestion and delay (e.g., due to collisions) on the Don Valley Parkway (DVP). The DVP, Highway 404 (north of highway 401) and Highway 401 are the most significant roadways within the study area each serving high traffic volumes throughout the day. Further descriptions of the major transportation facilities, including transit routes, in the study area are provided in the *DVCTMP Summary Report* provided in Supporting Documentation.

Don Mills Road serves as a major north-south corridor connecting numerous residential communities and employment areas. There are seven major employment areas in the corridor: Gordon Baker; Consumers Road; Leslie/York Mills; Railside; Eglinton/Don Mills; Bermondsey/Eglinton; and Thorncliffe Park which offer diverse employment opportunities and provide a major contribution to the economy of Toronto and the GTA. It is the location of several major corporate offices and major retail centres such as Fairview Mall and the Don Mills Centre. It is also the location for various recreational, institutional and cultural facilities including the Ontario Science Centre, the Don Valley Brick Works and Todmorden Mills Heritage Museum.

The study area includes a diverse mix of residential communities containing both low density residential uses with lower scale buildings, medium density uses with townhomes and low rise apartments, as well as several higher density apartment neighbourhoods such as Thorncliffe Park, Flemingdon Park and Parkway Forest. These communities are served by numerous neighbourhood and regional-scale parks, schools, places of worship, other local institutions, and various types of shopping facilities. A general land use plan of the corridor is provided in The Supporting Documentation (Figure A1).

The Don Mills Road corridor itself is home to about 430,000 residents and has employment of approximately 176,000 (based on 2001 Census). New development is expected to provide housing for 35,000 new residents in the Don Mills Road corridor by 2021. Total employment throughout the Don Mills corridor is expected to increase by 20,000 jobs by 2011 and an additional 14,000 jobs by 2021.

The Don River watershed is the most prominent natural environmental feature in the study area. The watershed is highly urbanized but also consists of several major parks and protected areas (e.g. ESAs, ANSI). The Don River drains into the Lake Ontario basin. The study area and Toronto is part of a larger biophysical region that is bordered to the north by the Oak Ridges Moraine, to the west by the Niagara Escarpment and to the south by Lake Ontario.

During the EA study, a more detailed description of the environment will be provided.

4.3 Potential Effects

The environment that is described above is the environment that is potentially affected by the proposed undertaking. The EA will examine the potential effects of the alternatives and the undertaking on all components of the environment. Potential effects can be positive or negative, direct or indirect. In general, the identification of potential environmental effects will include an inventory or profile of existing conditions as described in the preceding Section, a description of the expected effects of each alternative, an evaluation of advantages and disadvantages, and identification of the actions necessary to change, mitigate or remedy any negative effects. These will all be identified in the EA.

Section 5.3 and Table A2 in Supporting Documentation to this ToR further describe the process to be followed and specific factors to be applied in identifying the potential positive and negative effects of the various alternatives.

Based on the analysis and findings of the DVCTMP, a preliminary list of potential environmental effects to be considered during the evaluation of alternatives is included as Table A1 of the Supporting Documentation. These are provided for reference purposes only, and will be refined during the EA. Actual determination of environmental effects and the actions necessary to address any negative effects will occur during the EA.

5. ENVIRONMENTAL ASSESSMENT WORK PLAN

A preliminary study schedule is provided in Appendix A of this ToR. This schedule is subject to change during the EA study.

5.1 Description of Existing and Future Conditions

The EA will provide details on existing conditions related to the built, natural, social, and cultural environments, and the expected or planned changes to these conditions. In addition, this baseline data will also be used to predict the potential environmental effects of the undertaking. An expanded listing of the key types of inventory data to be collected during the study and the potential agency sources for the data is provided in Table A3 in Supporting Documentation.

Background information related to natural environment and natural heritage features within the study area will be collected from agencies such as the City of Toronto Forestry and Natural Environment Management section, the Toronto Region Conservation Authority, Ministry of Natural Resources, Ministry of the Environment, Ministry of Culture and other available secondary sources. For reference, the major Don River Valley natural features within the study area are indicated in Figure A2 of the Supporting Documentation.

The EA Report will include any supporting technical studies, surveys and environmental inventories to assist in providing a detailed description of the environment in the EA and includes the following types of information:

Transportation Facilities and Service

- Roadway network and traffic volumes (existing and forecast);
- Traffic operational data (e.g. collisions, signal systems);
- Transit network, services and volumes (existing and forecast);
- Travel market analysis (e.g Transportation Tomorrow Survey (TTS) data);
- Railway network; and
- Pedestrian and cycling network, including volumes where available.

This information will include the travel demand and market analysis conducted for the DVCTMP study (summarized in the DVCTMP reports) including the development of long-range travel demand forecasts, and/or updates to these forecasts to be carried out as part of the EA.

To assist in identifying future travel needs, the City will develop updated travel demand forecasts for the 2021 planning horizon utilizing its regional GTA Travel Demand Model and TTC's Madituc transit forecasting model. Assessment of both existing and future demand (under existing and future networks), will be done using land use forecasts for the GTA and observed travel characteristics TTS (2001). Travel demand analysis done during the preparation of the Transportation Master Plan and other recent or ongoing City and TTC transportation project studies will also be used.

Travel demand forecasts will incorporate work completed for related ongoing transportation planning studies or projects including the GO Transit 10 Year Plan, GO Transit BRT, York Region Rapid Transit Plan/VIVA implementation and connections with TTC subways, TTC-TWRC Waterfront East and West Transit Improvements, Spadina Subway Extension, Yonge Street Surface Transit Improvements, and the Scarborough RT Strategic Replacement study.

Natural Environment

The following information will be identified and mapped (where appropriate) to assist in the evaluation of alternatives and potential effects:

- ESAs, ANSIs, Wetlands, Regional Storm Floodplains, hydro-geological conditions, watercourses, valley corridors, erosion prone areas;
- Terrestrial features and individual species (including significant woodlands and rare vegetation communities);
- Species at risk, significant wildlife habitat for endangered and threatened species;
- Existing drainage patterns in the vicinity of stations and valleys;
- Known contaminated sites;
- Storm water management features; and
- Natural heritage features and system linkages.

Social-Cultural Environment

- Description of land use in the study area, and in the vicinity of routing options and stop/station locations;
- Development characteristics and patterns in the study area;
- Inventory of community services;

- Business characteristics and access considerations along the corridor;
- Inventory of cultural/heritage features or uses in the vicinity of the corridor;
- Areas of potential and known archaeological features and aboriginal significance;
- Ambient noise (representative information in areas of potential high effects); and
- Quality of pedestrian environment.

Planning and Policy Context

- Approved policy/programs of the City of Toronto, Province and other relevant government agencies; and
- Relevant objectives regarding transportation investment, priorities and implementation.

5.2 Description and Rationale for Alternatives

5.2.1 Alternatives To The Undertaking (Planning Alternatives)

Alternatives to the undertaking (planning alternatives) are functionally different ways of approaching and dealing with a problem or opportunity. The DVCTMP, which followed Phase 1 and 2 of the Class EA process, including full public consultation, evaluated a number of planning alternatives for addressing the transportation needs in the Don Valley corridor. Higher order transit service on Don Mills Road was identified as one of the recommended transit planning alternatives to address these needs. As part of this EA, this transit planning alternative will be confirmed after the first phase of the study.

As described in Section 2.1, the DVCTMP also identified several other recommended initiatives to increase transit usage in the Don Valley corridor. All were recommended for inclusion within the DVCTMP and are considered complementary alternatives to address forecast travel demand in the corridor. These other improvements, each contributing to required passenger-carrying capacity in the corridor, are being pursued by the respective agencies as separate initiatives. Each of them also serve distinct travel needs and key transit markets from those of the Don Mills Road Transit improvements. As a result, these initiatives are not considered as planning “alternatives to” this undertaking, and additional alternatives to the undertaking will not be identified.

The DVCTMP recognized the important role of expanded, higher frequency GO Rail service on the Richmond Hill and Stouffville lines in providing transit capacity in the corridor. The primary travel needs to be served by these improvements are trips between York Region, northeast Toronto and Downtown Toronto. Given that expanded rail service is committed and now in the process of being implemented by GO Transit, detailed analysis was not carried out during the DVCTMP. Likewise, for this undertaking, GO Rail improvements are not considered as planning alternatives to the undertaking, but rather as complementary improvements. The improvements will be assumed to be in place when updating the travel demand forecasts.

5.2.2 Alternative Methods of Carrying out the Undertaking (Design Alternatives)

Alternative methods of carrying out the undertaking (design alternatives) are essentially different ways to accommodate the undertaking within a chosen corridor. A combination of design options will be considered during the EA including options identified during the course of the study by the Project Team and by the TAC, public or stakeholder groups.

For this EA, the design alternatives will include three principal components:

- Corridor(s)
- Vehicle Technology
- Physical Configuration

Due to the integral relationship between corridors and technology, the EA will evaluate these options together as the first step in the development of design alternatives. Based on the results of that evaluation, physical configuration options will be developed as the second step.

Alternative designs for connecting the new transit service with existing facilities will be required. Depending on the results of travel needs assessment, this may include investigating design concepts for connections to the Bloor-Danforth Subway stations (e.g. Pape, Broadview, or Castle Frank stations), Sheppard Subway (e.g., Don Mills Station), waterfront area transit routes, and to other major east-west transit routes in the study areas.

For potential alternatives serving Castle Frank station, the EA study will investigate options in addition to bus lanes on the Bayview/Bloor ramps to access the Castle Frank Station bus terminal. Based on City Council's direction (at it's meeting of May 17-19, 2005), the EA study will include a review of a transit stop/station on Bayview Avenue (at the base of the Bloor Street ramp), with a vertical connection to the Castle Frank Station for passengers by way of a people mover (e.g. elevator, covered escalator or comparable technology).

During the ToR consultation process, a suggestion was made to investigate Chester Station as a terminus for a new or improved Don Mills Road service. This option was reviewed early in the screening process during the DVCTMP and was not included among the long-list of alternatives, primarily due to the absence of an existing transit terminal and sufficient property. In addition, the classification of the roadway as a local residential street makes its location and facilities unsuitable for operation of surface transit vehicles. However, a review of the potential for using Chester Station will be done as part of the EA study screening of corridor options.

Corridor Options

For the purposes of this study, corridors refer to the general location of a transit service within the study area. Corridors are typically linear in nature and may include entire or a portion of existing or proposed road and utility rights-of-way or property easements or allowances.

Corridor options for this EA vary among sections of the study area. Exhibits 5-1 and 5-2 illustrate the three distinct sections (North, Central, and South) of the study area and the corridor options that have been identified for evaluation as part of this EA.

North Section - Sheppard Subway Don Mills Station to Overlea Boulevard(1 corridor option)

As assessed and recommended by the DVCTMP, Don Mills Road is identified as the sole corridor option for the Don Mills Road improvements from Sheppard Subway (Don Mills Station) to Overlea Boulevard. The evaluation of alternatives for this section will be limited to vehicle technology and physical configuration options, and will need to consider the ability for future service integration options to the north (of the Sheppard Subway - Don Mills Station) in its evaluation.

Central Section - Overlea Boulevard to Bloor-Danforth Subway (4 corridor options)

Potential corridor options to be evaluated in this section include:

C1 - Bayview Avenue
C2 - Don Valley Parkway
C3 - Broadview Avenue
C4 - Pape Avenue

South Section - Bloor-Danforth subway to TTC-TWRC Waterfront (East) Transit EA study areas and Downtown (5 corridor options)

Potential southerly corridor connections will include those identified during the DVCTMP, as well as other potential continuous north–south corridors capable of integrating with corridors identified as part of the TTC-TWRC Waterfront (East) Transit EA studies. These transit corridors include:

S1 - Parliament Avenue
S2 - Bayview Avenue (identified during the DVTMP)
S3 - Don Valley Parkway (identified during the DVCTMP)
S4 - Broadview Avenue
S5 - Pape Avenue/Carlaw Avenue

Several combinations of corridors were identified during the DVCTMP. These options will be re-assessed, in addition to other alternatives not previously identified that are considered reasonable and have the potential to meet the primary purpose and objectives of the study.

Exhibit 5-1: Study Area Sections & Corridor Options

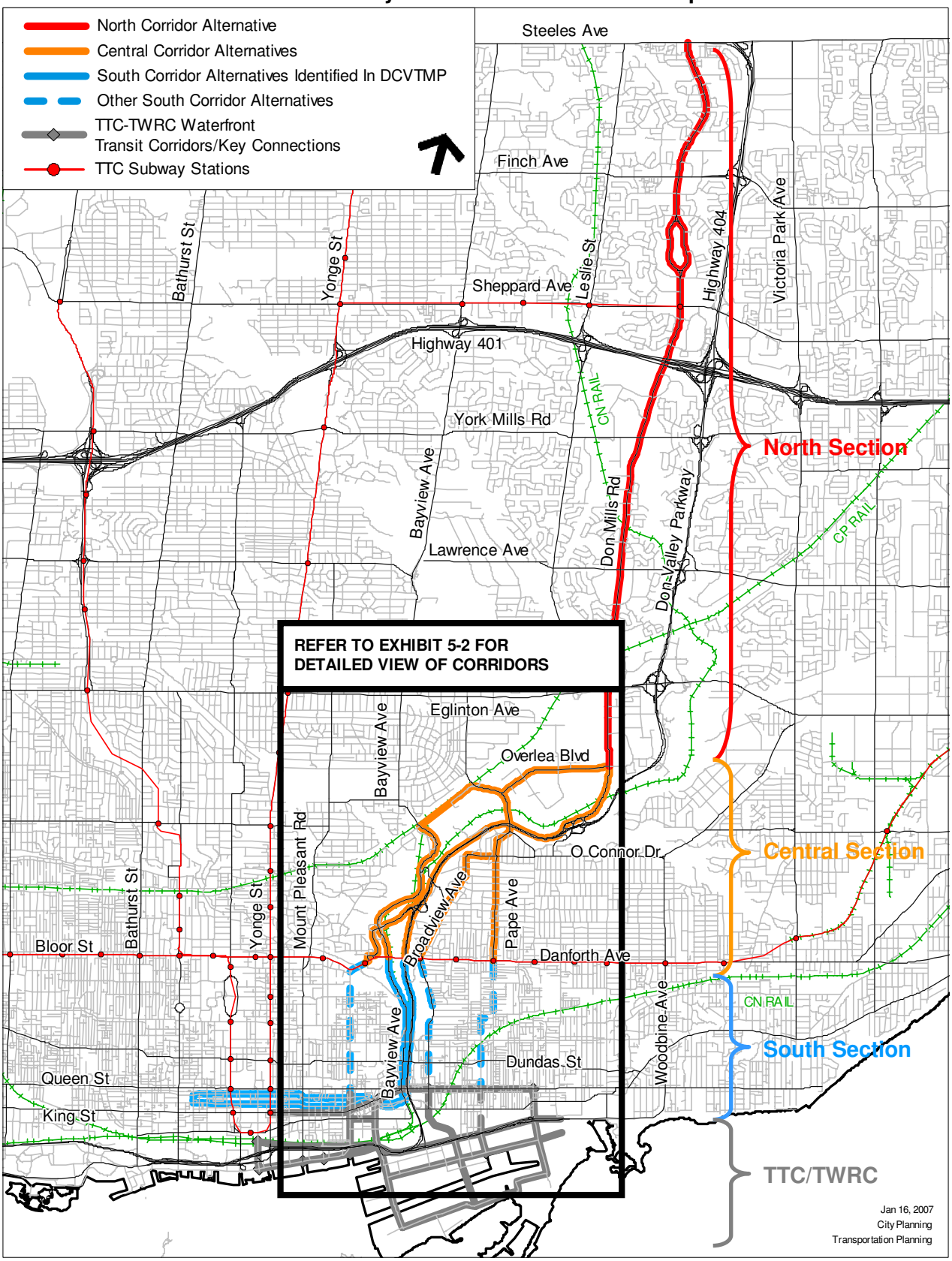
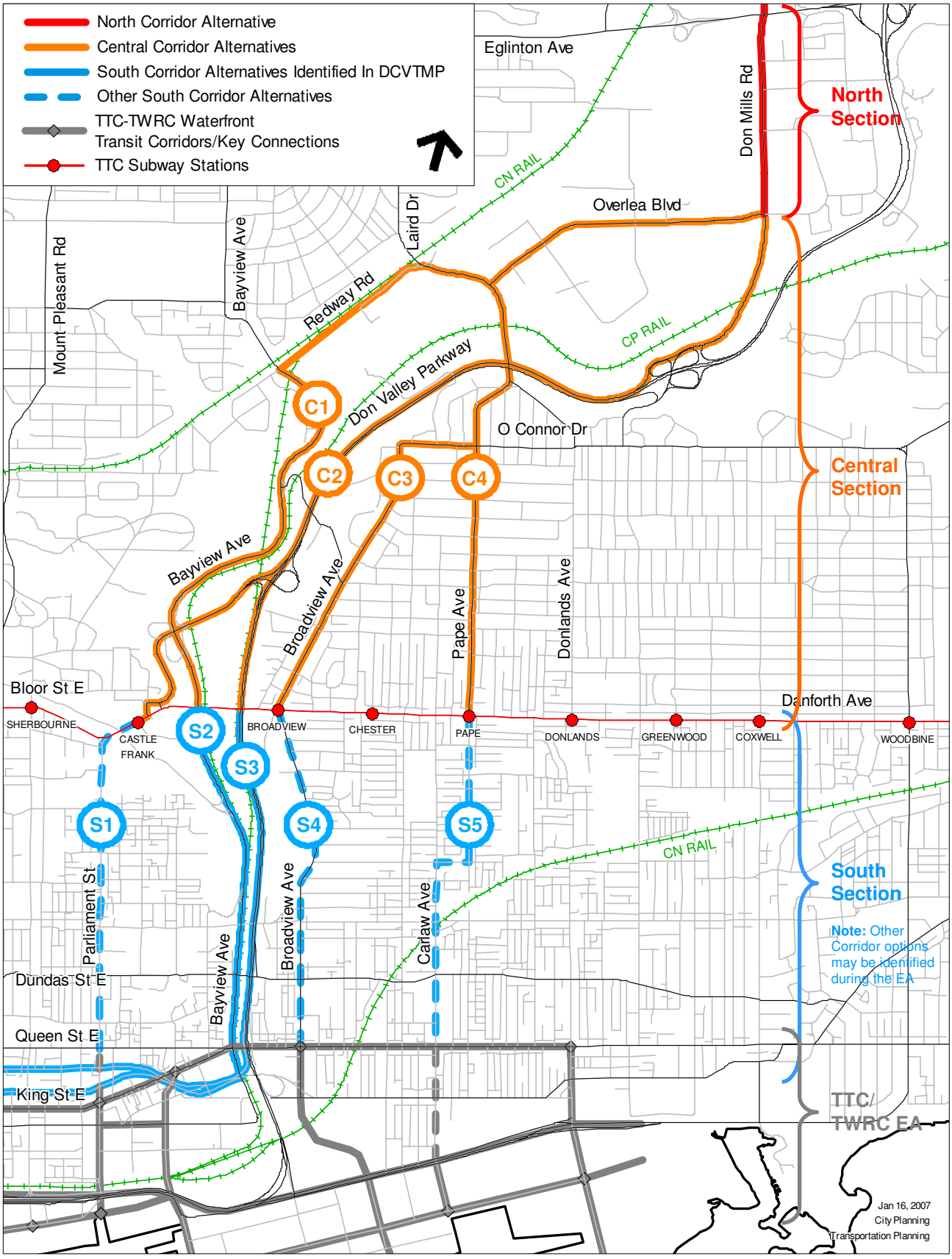


Exhibit 5-2: Central and South Corridor Options



Vehicle Technology Options

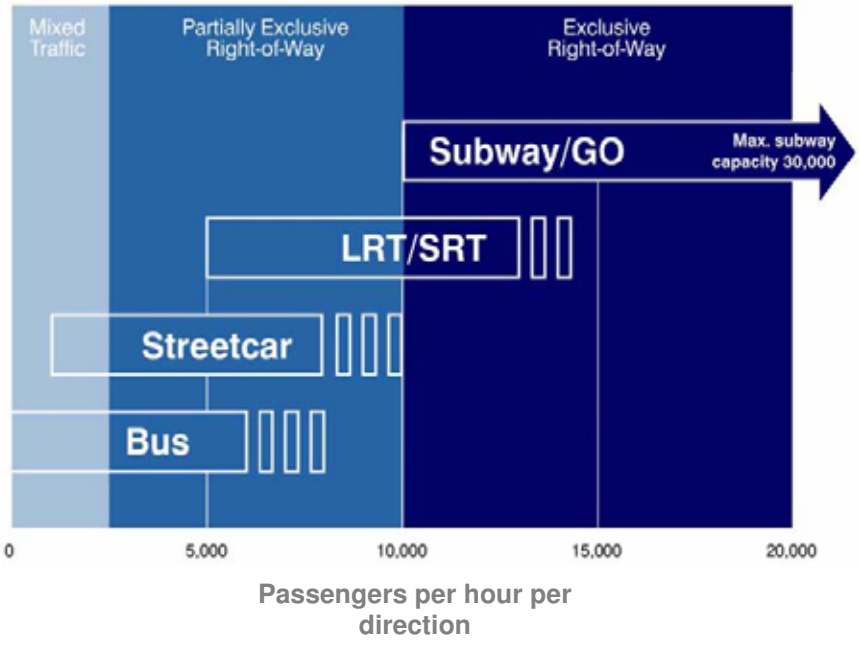
Vehicle technology generally refers to the type of transit vehicle, along with any required operating infrastructure. Technologies to be considered for this project will include both bus-based and surface rail-based technology. Several factors affect choice of vehicle technology for any given transit service, including physical and operational feasibility, ridership potential and environmental considerations. General operational configuration(s) for new transit infrastructure or services may also vary depending on the transit technology it serves. Infrastructure requirements will be evaluated considering potential staging of transit vehicle technology in the various route sections of the corridor (e.g. changing from bus-based to rail-based technology). Exhibit 5-3 illustrates the capacity range of various transit technologies and in its associated operating configurations (e.g. mixed traffic, exclusive right-of-way) to achieve those capacities.

The DVCTMP does not recommend further consideration of subway technology for the Don Mills Road corridor due to its prohibitively high capital costs compared to anticipated ridership levels. Initial projected travel demand estimates for transit improvements in the Don Mills Road corridor do not reflect the need for subway service. It was therefore, excluded from the DVCTMP and consequently, subway technology will not be assessed during the Don Mills Road transit EA study. Instead, it is proposed that the following technology (and operational configuration) options be further considered and evaluated during the EA phase:

1. Conventional bus - operating on existing roads;
2. Streetcar/light rail - operating on existing roads;
3. Conventional or new bus/bus rapid transit - operating in a dedicated right-of-way (full or partial route; primarily at-grade); and
4. Streetcar/light rail - operating on a dedicated right-of-way (full or partial route; primarily at-grade).

Other alternative technologies identified during the EA study may also be included for evaluation. It is possible that more than one of these technology options will be carried forward as part of the development of physical configuration options.

Exhibit 5-3: Capacity Ranges for Various Transit Technologies



Physical Configuration Options

Physical configuration options refer to the specific location of the transit facility or operation within the selected corridors, and the road right-of-way features in the context of the selected technology. There is a wide range of specific elements comprising the physical configuration of a facility or service including, but not limited to.

- Route alignment (e.g., horizontal and vertical location on or off a roadway; directional routing);
- Specific location within the roadway where transit facility or operation occurs (e.g. curb lane, median lane, in mixed traffic, dedicated, etc.);
- Roadway design (e.g., lane widths, bike lanes, sidewalks, etc);
- Transit facility design (e.g., platform and stop locations and features, etc.);
- Traffic control (e.g. signalization, form of signal priority);
- Service design (e.g. express, all-stops, etc);
- Connections to other transit routes/services; and
- Streetscaping and urban design elements (e.g, sidewalk layout; plantings and landscaping; other public realm features)

Improvements to pedestrian and cycling access and safety will be reviewed as part of all options evaluated. These improvements may include bike lanes on Don Mills Road, Broadview Avenue and Bayview Avenue as indicated in the Toronto Bike Plan (2001), and/or bike friendly street design elements as outlined in the Toronto Bike Plan (2001) on all other affected streets.

Alternative configurations may include passenger stops potentially expanded in size and function than current transit stops in the corridor. At these locations, modifications to the roadway or intersection configuration may be necessary to accommodate passenger platforms and other facilities, including pedestrian and cycling elements, as required. The study will examine options for new or relocated stop locations along the route.

As part of the evaluation of physical configuration options, analysis completed as part of the DVCTMP study may be utilized during the EA.

5.3 Assessment and Evaluation of Design Alternatives

5.3.1 Evaluation Approach

The evaluation of the various design alternatives will involve both a screening process (for corridor and technology options) and more detailed evaluation process (for the short-listed corridor/technology options and the physical configuration options). Exhibit 5-4 illustrates the basic evaluation framework to be followed.

The development of the design alternatives will include two main components. The first component will focus on the assessment and evaluation a preferred corridor(s) and vehicle technology. The second step will involve the assessment and evaluation of physical configuration options and selection of a preferred design concept (which will include all three elements: corridor, technology and physical configuration).

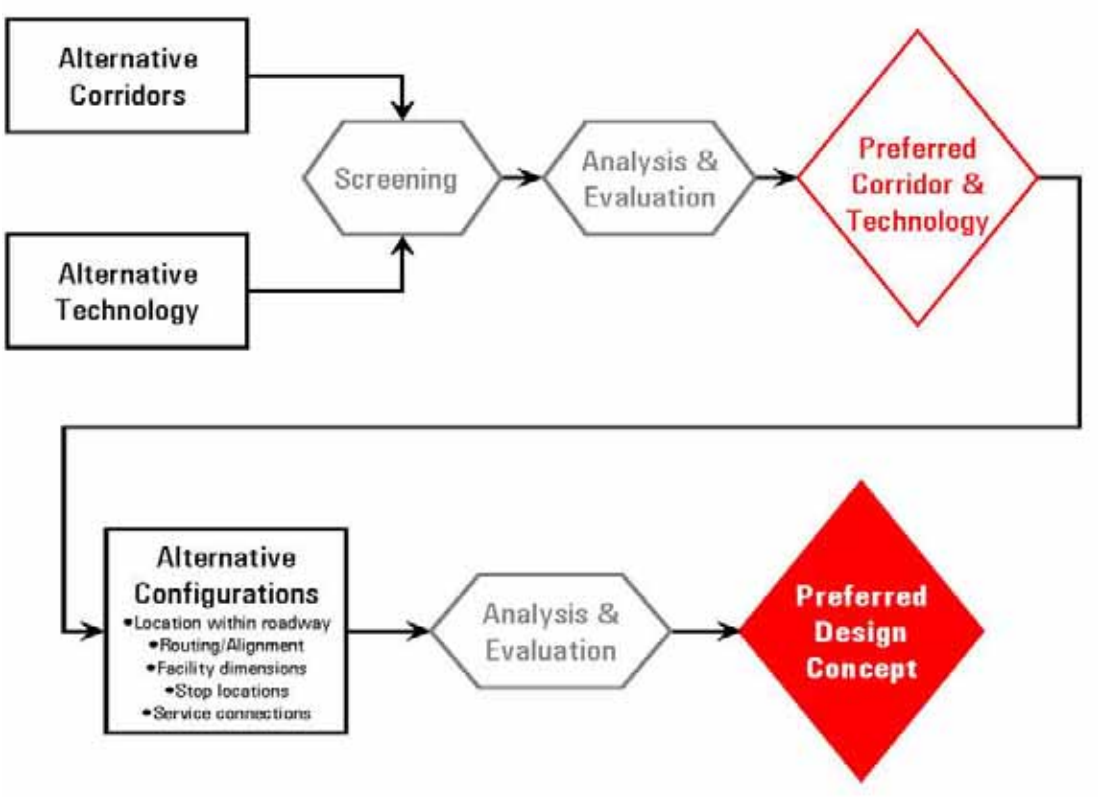
Due to the potential large number of alternative corridor and technology combinations to be assessed, an initial screening process will be used to narrow a long list of options down to a smaller number for more detailed examination and use in the development of physical configuration options.

Screening may result in deletion of options or consolidation of two or more options where appropriate. The screening step will focus on identifying only those various options and combinations that address the primary purpose and objectives of the project: providing frequent, fast, higher capacity and reliable transit service in the Don Mills Road corridor, thereby increasing the potential for a higher share of trips made by transit; how well the alternatives may be integrated within the area transit network; and the feasibility and estimated costs to implement the alternatives.

The screening acts as a simple "fatal flaw" assessment, whereby a smaller set of options are identified. These options will be carried forward to the next step of the evaluation process where they will go through a more rigorous comparative evaluation and become the basis for developing physical configuration options. The advantages and disadvantages of the various options will be compared based on a comprehensive range of evaluation criteria that address all facets of the environment. Net impacts will be identified. These net impacts refer to the effects on the environment that remain after standard mitigation measures have been applied to reduce the extent of the impact.

A preliminary list of evaluation criteria and indicators/measures for assessing design alternatives has been developed by the Project Team in consultation with agencies, stakeholders and the public during the ToR process and shown in Table A2 in Supporting Documentation. This list will be refined during the EA study with the combined input of technical/government agencies, stakeholders, the general public and the Project Team. Thus, the criteria to be used may not necessarily include or be limited to those identified on the preliminary list.

Exhibit 5-4: Alternatives Evaluation Process



The method used to predict environmental effects and evaluate advantages and disadvantages should clearly identify the relative differences among alternatives and the decision process behind the selection of a Preferred Alternative. For this EA study, the evaluation method to be used,

sometimes referred to as the Reasoned Argument method, will identify the key differences between the various alternatives and the reasons why an alternative is preferred over another. The evaluation criteria and measures will be defined in terms of quantifiable or measurable attributes wherever possible. Alternatives can then be compared in terms of these measures. For example, number of persons carried per segment of roadway is a measure for the criteria, Effect on person-carrying capacity. Some measures however, may only be assessed qualitatively.

The evaluation framework will be based on a phased sequence of decision-making in which the design alternatives are assessed at an increasing level of detail as they become more focused. In general, the assessment of environmental effects will use the inventory of existing conditions as a baseline to assess the effects of each alternative, the types of impacts and potential measures to mitigate the impacts. Appropriate technical analysis will also be undertaken to identify the potential effects, significance of the effects, and net effects (effects after mitigation) associated with each of the criteria. The relative significance of the impacts assists in providing a clear rationale for the selection of a preferred design concept.

As part of the evaluation, a relative importance or weighting of the advantages/disadvantages and criteria may also be determined. Stakeholders and the general public will assist in identifying the relative importance of the various evaluation criteria, which will then be applied to the overall assessment of a particular alternative.

The decision-making process will be clearly documented to support a traceable process and to ensure that it is understandable. Opportunities for stakeholder input into this process will be available, and are outlined further in Section 6.

5.3.2 Key Tasks During the Assessment of Design Alternatives

The following provides additional detail regarding some of the key tasks and considerations to be completed as part of the assessment of alternatives. These are not intended to represent a complete task list. The analysis for all categories will build upon preliminary work completed during the DVCTMP study and incorporate additional and/or updated information, as well as relevant information from ongoing studies or initiatives.

Transportation Modelling

In addition to updating the existing and projected future travel demand conditions in the study area, and assist in the assessment of alternatives, the Project Team will utilize the regional GTA Travel Demand Model and TTC MADITUC transit analysis model to assist in evaluating the effects of different transit design alternatives in the corridor and study area. This work will be supplemented where appropriate with microsimulation analysis. This microsimulation analysis is intended to provide detailed snapshots of expected auto and transit operations on Don Mills Road, and other critical points on alternative corridors, under different roadway and/or transit facility design and operational scenarios associated with the new transit service (e.g., providing transit priority or exclusive/reserved transit lanes), including changes in area traffic patterns. Microsimulation analysis incorporates detailed operational conditions as inputs including traffic, pedestrian and cycling volumes and patterns, vehicle mixes, traffic signal timings, transit signal priority, and on-street stopping and parking conditions/ restrictions.

For analysis at intersections, the microsimulation analysis may be combined with conventional traffic analysis methods (i.e. using software such as CCG, HCS, or Synchro) to further define the effects of changes in road capacity, and traffic level of service, (e.g., delays, queues).

Natural Environment Impacts

The existing conditions in the study area related to natural environment will be identified as part of the EA Study. Field investigations will be conducted as required to supplement available background information and the identification of environmental features and relevant mapping of environmental constraints and deficiencies will be presented.

Following the analysis of existing conditions, the potential environmental effects resulting from the various alternatives will be evaluated and compared. This includes any effects on the natural features of the Don Valley corridor such as Crother's Woods, other Environmentally Significant/Sensitive Areas (ESAs), wetlands, Areas of Natural and Sensitive Interests (ANSIs), parkland and other open space areas in the corridor. The compatibility of alternative design concepts with applicable environmental policies and by-laws, such as the natural environment and heritage system policies of the Toronto Official Plan and Toronto Ravine Protection By-Law, will be among the key considerations in the assessment of the design concepts.

Mitigation measures will be identified for the various environmental components investigated (e.g. terrestrial, hydrological/ aquatic, vegetation communities, wildlife and designated natural areas). A "net gain" principle will be adopted whereby appropriate environmental mitigation measures will be identified to offset the negative impacts of any construction in the Don Valley. Opportunities for enhancements to the environment in the immediate vicinity of construction will also be identified, and included as part of the preferred design concept, wherever practical.

Socio-Economic Effects

An assessment of general socio-economic effects (and possible mitigation) will be prepared and included in the EA Study. The specific criteria in this category are wide-ranging and include effects on land use, community services, redevelopment opportunities, urban design, noise, and community and business access.

Potential noise and vibration impacts (both during and after construction) are also a major consideration in areas where new infrastructure is likely to affect residential and recreational areas, as well as other noise and/or vibration sensitive land uses, such as schools, health care centres, places of worship, and buildings with sensitive testing equipment. To establish baseline conditions, noise monitoring data will be collected in areas having potential for significant impact (where a major change in the type or volume of traffic is expected). For areas where data is not available, monitoring will be undertaken to determine the typical ambient (existing) noise levels. Appropriate noise criteria for the baseline assessment and assessment of alternatives will be confirmed with Ministry of the Environment Noise Unit staff.

Analysis of residential and business impacts will focus on potential changes in areas along the alternative corridors. The analysis will include examining the effects on site and neighbourhood accessibility by auto, transit, pedestrian and bicycle modes, vehicle parking, local traffic volumes/patterns, urban design, loading/unloading locations, visibility and attractiveness (due to changes in streetscape/sidewalks) and community connectivity.

The assessment will also discuss the relationship among enhanced transit services and development potential and community revitalization, referencing current examples of other locations locally, in Canada, and abroad as appropriate.

Cultural Environment

The EA study will document all known cultural resources, including potential and know archeological sites, heritage sites and landscape features, as well a the presence of any aboriginal/First Nations land claims, treaty rights or related issues. As necessary, field surveys will be performed and secondary source investigations, such as previous cultural heritage reports prepared for areas directly affected by the alternatives, will be obtained. Information will also be sought from the Ministry of Culture, Ontario Secretariat for Aboriginal Affairs, and Indian and Native Affairs Canada. All work will be completed by a qualified cultural/heritage specialist. The focus of the investigations will be on existing conditions and potential impacts of the preferred alternative, once a preferred corridor and configuration have been identified.

The evaluation of design alternatives will focus on the relative differences in potential effects on cultural/heritage resources including potential mitigation. Consultation with qualified staff will be a key component of the assessment.

Planning & Policy Context

The key source documents to be used as the basis for assessing the compatibility and impacts of study alternatives compared to current planning objectives and policy include:

- Don Valley Corridor Transportation Master Plan;
- New City of Toronto Official Plan;
- TTC Ridership Growth Strategy;
- Building a Transit City Plan (City of Toronto and TTC);
- Province of Ontario's Places to Grow Act and Growth Plan for the Greater Golden Horseshoe;
- 2005 Provincial Policy Statement;
- York Region Transportation Master Plan;
- West Don Lands Precinct Transportation Plan;
- East Bayfront Precinct Transportation Plan;
- West Don Lands Transportation Master Plan; and
- East Bayfront Transportation Master Plan

All these plans contain relevant policies and objectives regarding transportation investment, urban structure and land use/development. Additional strategic plans or transit network plans by other agencies which are released during the course of the EA study will also be used as source documents.

5.4 Preferred Design Concept

Following analysis and evaluation of the design alternatives, including public, stakeholder and agency review, a preferred design concept, including the location and conceptual design will be selected. Subsequently, the preferred design concept will be further refined to ensure that all of the issues and concerns raised through public, agency and stakeholder consultation and study process are addressed. The preferred design concept will be developed in sufficient detail to identify key physical elements and potential environmental effects that will be caused or might reasonably be expected to be caused, and the mitigation or compensation measures to reduce the negative effects.

5.4.1 Confirm Environmental Effects

During this stage, further refinements to the preferred design concept will occur, permitting a more detailed assessment of environmental effects associated with the specific concept, including the environment that will be affected or may reasonably be affected, the potential and mitigation measures to minimize, manage, prevent and/or minimize any adverse effects. The environmental effects of the project can be classified under one or more of three categories:

1) Overall Impacts – Immediate potential impacts resulting from the approval of the project;
2) Construction Impacts – Short-term potential impacts resulting from construction activities; and
3) Operational Impacts – Long-term effects arising from the daily operation of the project.

The elements of the environment that may reasonably be affected and the potential effects of the undertaking will be confirmed. A preliminary list of potential environmental effects is included in Table A1 in the Supporting Documentation. Findings of the DVCTMP study and TTC's experience during the design, construction and operation of recent transit projects will assist in defining the potential effects to be evaluated. The list will be based on the evaluation of the "alternative methods" of carrying out the undertaking (e.g., physical configuration, alignment, technology, and stop/station options and locations).

5.4.2 Confirm and Refine Mitigation Measures

As part of the development of the preferred design concept, mitigation measures will be examined in more detail and refined to reduce or eliminate anticipated environmental effects that have been identified. Opportunities to avoid or minimize impacts will be integrated wherever possible. Appropriate technical mitigation measures will be developed according to the specific type of environmental feature being affected, and extent of any potential effects.

Mitigation measures will be developed in consultation with appropriate agency staff and stakeholders and in the context of relevant MOE, TRCA and other applicable government agency technical guidelines. Mitigation measures may also include recommendations for a monitoring program.

Categories of mitigation measures may include:

- Avoidance measures (e.g., relocation of construction components);
- Attenuation features (e.g., noise);
- Protection/preservation measures (e.g., water quality, tree protection); and
- Special design enhancements and/or construction considerations (e.g., staging/time constraints for disruptive works).

Upon selection of the preferred design concept, specific environmental mitigation measures will be reviewed to address any direct and indirect effects related to all environmental categories investigated. Specific technical assessments completed during the alternatives evaluation stage, including air, noise, water quality, geotechnical and socio-cultural assessments will be used to assist in assessing the type and extent of mitigation required for the preferred design concept. A few of the key typical environmental effects which may require mitigation, and the general approach to addressing these effects during the EA are briefly described below.

As referenced earlier, a key objective in the mitigation of natural environmental effects will be to try and establish an environmental "net gain" for any areas which may be disturbed by the proposed

works whereby appropriate environmental mitigation measures offset the negative impacts of any construction in the Don Valley, and stewardship opportunities or enhancements to the natural environment in the immediate vicinity of construction are also assessed and included as part of the preferred design concept, wherever practical.

Air Quality

Air quality monitoring data and meteorology data from MOE monitoring stations and other secondary sources will be used to determine the ambient air quality. The potential for changes in air quality due to operation of the preferred design concept will be assessed, taking into account future changes in ambient air quality with and without the undertaking. If specific air quality data on existing conditions is unavailable, an independent air quality model considering existing and future vehicle flows will be developed to quantify any impacts and net effects. This data will be used to supplement MOE data. The modeling and monitoring program will be developed in compliance with MOE criteria and guidelines.

A protocol for predicting air quality dispersion effects will be utilized from existing sources or developed in consultation with MOE. It is expected that this will include a comparison of specific emissions to provincial criteria to assess the potential for adverse effects.

Water Quality and Quantity

The construction of the proposed undertaking and related infrastructure could result in changes to storm water drainage flows, water quality and quantity in surrounding watercourses, and affect management, treatment and discharge requirements.

The EA will outline an approach for water quality and quantity testing/monitoring before, during and after the construction of the preferred design concept. An approach to stormwater management will be prepared during the EA. This will address the impacts on storm water quality and quantity associated with the preferred undertaking within the project limits. It will take into account existing background information (e.g. sub-watershed information, wetland information, existing drainage conditions and future drainage conditions). A variety of stormwater management control options to maintain, and potentially enhance, existing water quality and quantity within the project limits will be assessed. Impacts from the potential use of road salt during the winter season will also be considered and appropriate mitigation measures will be identified. A more detailed stormwater management plan will be prepared during the detailed design of the project in the context of the latest MOE guidelines and criteria for planning, design and monitoring of construction activities affecting water resources. Recommendations related to water quality treatment and management, including locations for storm water management ponds will also have due regard for the City's recently adopted Wet Weather Flow Master Plan.

Noise/Vibration

The potential noise and vibration effects of the preferred design concept will be assessed. Noise and vibration prediction modeling will comply with MOE modeling procedures. In cases where data is incomplete or unavailable, the assessment of future effects may utilize data available from other studies, addressing similar transit technology options.

The significance of noise and vibration effects will be assessed based on acceptable levels of human response to sound and vibration exposure. The evaluation of impacts will take into account the changes in future noise and vibration levels due to increases in transit vehicular traffic, and the mix of traffic, with and without the proposed undertaking.

The significance of noise and vibration levels and its effects will be estimated using some or all of the following:

- Current guidelines and criteria used by MOE, Canada Mortgage and Housing Corporation (CMHC), and/or other relevant government agencies (including other jurisdictions);
- Procedures used in other transit environmental assessment studies,
- Noise and vibration specifications for vehicles of different transit technology
- Vibration propagation efficiencies; and,
- Available data from other transit systems with similar transit technologies.

Impacts which effect cultural heritage as a result of operations will also be considered (e.g. vibration due to operations over the long term on built heritage.)

Socio-Economic and Cultural

A broad assessment of potential socio-economic considerations of the preferred design concept both during and after construction on existing land use, development, cultural heritage, business and community shall be prepared including proposed mitigation measures.

For any mitigation measures, detours, access roads, staging areas, storage areas, drainage facilities, stormwater management facilities, or other facilities that may be required for this project, a baseline archaeological assessment will be conducted and mitigation of impacts prior to any soil disturbance or alteration.

5.4.3 Other Approvals & Commitments for Design

It is recognized that prior to implementation of the preferred design concept, a number of approvals and permits must be obtained after submission and approval of the EA Report. Typically, many of these approvals require details related to design and construction staging confirmed during the detailed design phase of the project, and thus, not available at the time of EA approval. Formal application for those necessary approvals will be made at the appropriate time in the implementation phase. However, consultation with approval agencies during the EA stage is critical in order to ensure the feasibility and acceptance of the EA's preferred design concept and mitigation measures. Where modifications to the design are necessary, staff can thereby provide appropriate direction in advance of formal applications being made. Prior consultation will also assist in reducing the amount of time necessary for the approving agency to process and approve the necessary approval or permit.

The following are examples of approvals/permits that may be required as part of this undertaking. The items on this list must be confirmed, either during the EA or detailed design stages.

- DFO approvals, Navigable Waterways authorization, Railway Relocation and Crossings Act approvals;
- TRCA approvals ("Fill, Construction, Alteration to Waterways" permit and DFO authorization);
- MTO - work within right-of-way or within a permit control area;
- MOE Permit to Take Water;
- Sewage and water approvals, under the Ontario Water Resources Act;
- MNR approvals under the Lakes and Rivers Improvements Act and Public Lands Act;

- Environmental Protection Act approvals for wastes generated at stations and maintenance facilities;
- City of Toronto, urban forestry ravine protection clearance, permits and/or approval;
- Ontario/Federal approvals related to cultural, archeological, aboriginal/first nations resources, and related land claim/treaty agreements
- Municipal Noise bylaw amendments/exemptions if required during construction;
- Municipal building permits, if required

6. ENVIRONMENTAL ASSESSMENT CONSULTATION PLAN

The EA Study will include an extensive public consultation plan. The consultation plan will build on and incorporate the consultation conducted as part of the DVCTMP, the relevant transportation studies completed to date in the corridor, and this ToR as described in the following section. The consultation plan for the study reflects the consultation requirements outlined in the MOE guidelines for the preparation of ToR documents.

6.1 Elements of the Public Consultation Program

The key elements of the public consultation program are proposed to consist of:

- Published notices of study commencement, the public information centres, and Study completion as a minimum;
- Public information centres and workshops held at key stages of the study;
- Project website and email address;
- Newsletters distributed at key stages in the study (to those stakeholders and individuals on the project mailing list as well as those on the mailing list for the TTC-TWRC (East) Waterfront Transit EAs and Kingston Road Transit EA as deemed appropriate); and
- Individual meetings with government agencies, stakeholders and the general public as required.

The mailing list from the DVCTMP and from the ToR preparation will also be used and updated throughout the EA study. Mailing lists from related studies will also be used as deemed appropriate by the Project Team.

The general public, community groups, institutions, property owners, and other stakeholders will continue to be provided with opportunities to review study findings and provide input. A Notice of Study Commencement of the EA Study will be placed in local newspapers and on the Project website, and mailed to the study mailing list prepared as part of the current study as well as to those located within the area in which alternative alignments may be developed.

It is currently proposed that three sets of formal Public Information Centres (PICs) will take place as follows:

1. First set of PICs – to present and receive input on: updated project rationale, definition of the undertaking, screening of initial corridors and technology options; detailed evaluation criteria, indicators/measures.
2. Second set of PICs – to present and receive input on: analysis and evaluation of the corridor and technology options, the selection of the preferred corridor(s) and vehicle technology, the identification of physical configuration options.

3. Third set of PICs – to present and receive input on analysis and evaluation of physical configuration options; the selection of the preferred design concept; potential environmental effects of the preferred design concept; and proposed mitigating measures.

The format of each set of PICs will depend on the nature of the information being presented and input sought. The PICs serve an important function in providing for two-way communications on specific local conditions, issues and concerns regarding the study. Follow-up consultation will be held as necessary after each set of PICs to facilitate additional dialogue on specific issues, discuss information on analysis and attempt to resolve any outstanding concerns and issues.

In addition to PICs, community workshops are planned, in most cases, before each set of PICs to review project progress, gain further insight into specific elements of the study process, and to discuss specific concerns, needs and project issues. Community workshops also provide the opportunity for Project Team and community groups to discuss the project and issues they are concerned with and to provide further ideas and suggestions in advance of the PICs, and in greater detail than may be possible during PICs.

Summary Reports for PICs, community workshops and other consultation events will be prepared and made available to all stakeholders and the public in a timely manner. Generally, most material prepared for the public sessions will be made available through the project website or will be available through the main project contact.

Information will also be prepared for each PIC and workshop to update the participants on the status other related studies and issues related to this study. Where appropriate, project staff from other studies (e.g. TTC/TWRC Waterfront Transit EAs) will attend PICs and workshops and relevant material will be presented.

6.2 Project Team and Technical Advisory Committee

For the EA phase, staff of the City of Toronto and TTC will comprise the core group of the Project Team together with project management staff of the selected professional consultant team who will assist in conducting the study. The City and TTC EA project staff will manage the day-to-day study activities of the team:

- City of Toronto
  - City Planning Division
  - Transportation Services Division (Infrastructure Planning, Traffic Operations)
  - Public Consultation & Community Outreach
- Toronto Transit Commission (Service Planning)

In addition to the Project Team, a Technical Advisory Committee (TAC) will be established which includes staff from other City of Toronto divisions and agencies, interested Provincial ministries and Federal departments, and the Region of York. Committee members will provide valuable input related to compliance issues (e.g., regulations, policies, procedures, guidelines) and other areas of concern within their jurisdiction or authority. These groups can also offer professional expertise and are often knowledgeable regarding local issues. The following agencies will be invited to participate in the TAC providing input regarding specific study components:

- City of Toronto
  - Parks & Recreation /Urban Forestry
  - Community Planning

  - Technical Services (Design and Construction)
  - Pedestrian and Cycling Infrastructure
- Region of York /York Region Transit/VIVA
- GO Transit
- Toronto and Region Conservation Authority (TRCA)
- Ministry of Transportation (MTO)
- Ministry of Environment (MOE)
- Canadian Environmental Assessment Agency (CEAA)

Participating technical agencies will be actively involved in all aspects of the EA study including problem definition/rationale, developing and assessing alternatives, establishing an evaluation methodology and criteria, and determining mitigating measures. In addition, these agencies various internal City of Toronto and TTC divisions/departments that will be consulted (as required) during the study process such as emergency service agencies (Toronto Police, EMS, and Fire Services), Heritage Preservation Services, Economic Development, and TTC Construction, Property or Maintenance staff.

A broader list of key technical agencies affected, or with a prospective interest in the study will be contacted upon study commencement and at key points during the EA to provide technical input and comments on the study process and findings. The proposed list of technical agencies (excluding Project Team and TAC members already identified) includes the following:

Jurisdiction/Authority	Agency
Federal Departments	• Transport Canada • Fisheries and Oceans Canada • Environment Canada • Indian and Native Affairs Canada
Provincial Ministries & Agencies	• Ministry of Natural Resources • Ministry of Municipal Affairs • Ministry of Public Infrastructure Renewal • Ministry of Culture • Ministry of Tourism and Recreation • Ministry of Education • Ministry of Health • Ontario Realty Corporation • Ontario Secretariat of Aboriginal Affairs (and individual First Nations groups)
Municipalities	• Region of York
Other Public Agencies	• Toronto District School Board • Toronto Catholic District School Board • Toronto Parking Authority
Railways	• Canadian National • Canadian Pacific Railway
Utilities	• Toronto Hydro • Toronto Water • Bell Canada • Enbridge Gas • Rogers Cable Systems • Shaw Communications • Hydro One Networks

6.3 Agencies and Stakeholders

Other stakeholders that provide input or express interest during the EA study process will be contacted or consulted. An initial list will include all currently identified agencies and stakeholders who participated during the DVCTMP, as well as those consulted during the Terms of Reference process, such as ratepayers, additional government agencies, and First Nations groups. It is expected that additional stakeholders and agencies affected by or having an interest in this study will be added to this list as the study progresses. Study Area Councillors will be invited to provide lists of stakeholders and agencies that have an interest in this study.

7. CONSULTATION DURING THE TERMS OF REFERENCE

A complete description of the consultation completed during the Terms of Reference, including a summary of comments is provided in the ToR Consultation Record (Supporting Documentation).

7.1 First Nations Consultation

The 1991 Statement of Political Relationship with First Nations of Ontario confirmed the right of First Nations in Canada to have an inherent right to self-government. While the study areas are urbanized and disturbed, they encompass lands related to the Don River and Lake Ontario. The Don River and associated tributaries and ravines functioned as major portage and transportation routes up until the late 18th century. The Lake Ontario shoreline functioned as a source of fishing, area of aboriginal occupation and transportation routes. In addition, the study area may have been an area of traditional use of land and resources.

One First Nation (Mississaugas of the New Credit First Nation) and one organization representing the interests of several different First Nations (Association of the Iroquois and Allied Indians) were identified by the Ontario Secretariat for Aboriginal Affairs as potentially affected or having an interest in this study. The Ontario Ministry of the Attorney General and Indian and Northern Affairs Canada (INAC) were also consulted with respect to potential land claims related to study area lands. Details regarding the consultations with these groups during the ToR process are documented in the Public Consultation Record that accompanies this ToR document.

The City/TTC will continue to consult with these groups during EA process and will develop a First Nations Consultant Plan as part of the first phase of the EA.
The First Nations Consultation Plan will identify how discussions with First Nations will occur during the EA. Discussions will focus on issues such as traditional use of land and resources, land claim, and cultural heritage. The Consultation Plan will allow consultation activities to be adjusted during the EA to meet particular needs of specific First Nations as those needs are made apparent. As a minimum, each First Nation will be kept notified of study progress at each major stage milestone in the study process, corresponding with other government agency/stakeholder notifications. A meeting between the EA study team and First Nations will occur if requested or appropriate to discuss and resolve any outstanding issues.

8. COORDINATION WITH OTHER TRANSIT EAs

8.1 TTC-TWRC Waterfront (East) Transit EAs

As noted previously, in conjunction with the Toronto Waterfront Revitalization Corporation (TWRC) as a co-proponent, the TTC is currently leading a series of three Individual Environmental

Assessments to determine transit requirements for the three development precincts in the eastern section of the central waterfront; West Don Lands, East Bayfront, and Port Lands. Specific Project Team staff members leading the Don Mills Road Transit EA project are also represented on the Project Team for the Waterfront EAs and are therefore closely connected to the day-to-day work on these important projects. The TTC-TWRC Waterfront (East) Transit EAs will be examining the requirements and options for north-south transit links south of the Bloor-Danforth subway.

The TTC-TWRC Terms of Reference for the three studies are currently with the Ministry of the Environment for review and approval.

To reflect the need to integrate this EA study with the TTC-TWRC Waterfront (East) Transit EAs, this study will attempt to coordinate and ensure:

- Consistency in the travel demand forecasting approach, data and assumptions used in the analysis of service needs and evaluation of alternatives;
- Consistency in the analysis of alternatives common to each study;
- Consistency of evaluation criteria and indicators/measures for common alternatives
- Exchange of public/stakeholder input among studies; and,
- Coordinated updates and links in the public consultation processes.

8.2 Region of York – Markham North-South Link Transit EA

The Region of York has submitted an individual EA to MOE recommending higher capacity surface transit operations between the Markham Corporate Centre and the TTC Don Mills Station (Sheppard subway). The undertaking is known as the Markham North South Transit Link. The study is still being reviewed by the MOE and a decision is expected in early 2007.

York Region's VIVA transit operations has commenced higher frequency bus service on several of its key routes to/from Markham and Toronto as a precursor to the Markham North-South Link, which includes new bus services, routes and stops between Markham and Don Mills Station.

The effects of the YRT/VIVA proposals (from Steeles Avenue to Don Mills Station) will have to be considered when assessing future transit service integration opportunities on Don Mills Road at Don Mills Station, so that the future ability to provide integration between services north and south of Sheppard Avenue and the necessary transit capacity improvements in the corridor north of Sheppard Avenue are protected. The YRT/VIVA services are intended to be complimentary in servicing the high travel demands expected from existing and planned development in southern York Region. The City of Toronto and the TTC will work closely with York Region and YRT/VIVA to ensure that these projects work effectively together in an attempt to alleviate congestion in the corridor.

9. OTHER APPROVALS

9.1 Coordinated Federal/Provincial EA Process - CEAA Applicability

The proposed undertaking is subject to the requirements of the *Ontario Environmental Assessment Act*. The requirements of the *Canadian Environmental Assessment Act* (CEAA) may also apply. The Canadian Environmental Assessment Agency administers the CEAA. Approval under the CEAA will be required for this EA study if it is determined that a federal authority:

- Is the proponent;
- Makes or authorizes payment or any other form of financial assistance to the proponent;
- Sells, leases or otherwise disposes of lands; or
- Issues a permit, or license or other form of approval pursuant to a statutory or regulatory provision referred to in the *Law List Regulations*.

These conditions are referred to as "triggers". At the time of writing this ToR, no triggers had been confirmed. The EA Project Team will consult with federal agencies during the EA process to determine if CEAA applies to the undertaking. To assist in this regard, a project description will be circulated to federal authorities to determine if there is a trigger under CEAA. If a federal EA trigger occurs, City/TTC staff intend to work in a coordinated way with provincial and federal governments, both governments having formally agreed to coordinate their respective EA processes pursuant to the Canada-Ontario Agreement on EA Cooperation (November 2004).

City/TTC staff will be guided by the federal/provincial coordination process chart outlined in Figure A3 in the Supporting Documentation of this Terms of Reference document. This proposed approach is designed to address the information requirements of both federal and provincial environmental assessment Acts.

The preparation of a project description is an important initial step in the federal EA process. This initiates a process whereby federal departments can evaluate their interests and potential participation in the project. The City of Toronto/TTC is committed to a timely preparation of the project description upon identification of the transit alternative and/or alternative method of carrying out the undertaking (preferred design concept) to ensure effective and efficient coordination of the provincial and federal EA process.

It is recognized by both the Canadian Environmental Assessment Agency (on behalf of the federal authorities), and the City of Toronto/TTC, that ongoing dialogue on the information requirements is required throughout the EA process as more is learned about the specifics of the undertaking. As such, the City/TTC will provide additional or more detailed information as the EA process proceeds. The intent is to produce a single EA body of documentation to meet all of the information needs of both levels of government. To the extent practical, federal/provincial information requirements regarding potential factors to be assessed in the context of this study have been integrated.

9.2 City Council Consideration

Upon completion of the Environmental Assessment study, a draft EA Report detailing the study process, findings, preferred design concept, recommendations and the public consultation process will be submitted with an accompanying Staff Report to the Planning & Growth Management Committee for endorsement (submission to the Toronto Transit Commission will also occur concurrently or at its own meeting). With appropriate amendments from the Committee and the Toronto Transit Commission, the EA and Staff Report, including any amendments, are then forwarded to City Council for its approval. The Committees or City Council have the ability to amend, add or delete recommendations of the Staff Report, and may commit staff to complete additional or specific design and public consultation, during the detailed design or construction stages of the project.

During the EA Study, in addition to Public Information Centres, interim findings will be presented to study area and Committee Councillors via staff briefings.

If required, the study findings may also need to be presented to the councils of the Town of Markham and/or York Region.

10. DOCUMENTATION

Upon completion of the EA study, an EA Report will be prepared and submitted in accordance with the Ontario EA requirements. The report will document the EA activities described throughout this ToR as well as the results of public and agency consultation activities.

The preparation of the EA report will involve the followings steps:

1. Prepare the draft EA Report in accordance with the requirements outlined in this Terms of Reference;
2. Provide a draft EA to government review agencies;
3. Develop a final draft EA Report, based on review by TAC, key agencies and stakeholders;
4. Submit the final draft EA Report to Toronto City Council and Toronto Transit Commission for approval;
5. Submit the EA Report, including Council amendments if necessary, to MOE for approval;
6. Notify agencies and stakeholders that the EA Report has been submitted; and
7. Post a public "Notice of Submission of the EA Report" (mail circulation to all study participants, newspaper and website notices, etc.)

11. MONITORING

In order to ensure compliance with the commitments identified in the EA report, a monitoring program will be developed for the construction and initial operational stages of the project. The monitoring program will be developed as part of the EA study in consultation with the community and government review agencies. The framework for the monitoring strategy may include, but not be limited to, the following elements:

- Compliance monitoring and effects monitoring;
- A plan for implementation of mitigation and contingency measures;
- Long-term post construction monitoring and contingency measures and agreed upon triggers for employing contingency plans;
- Provisions for monitoring water quality and quantity, air quality, and soils;
- Provisions to ensure compliance with EA commitments (e.g. an independent environmental inspector, compliance committee, contract specifications) to ensure that all environmental standards and commitments for both construction and operation work are met; and
- Details on monitoring and reporting relationships.

Baseline information on existing environmental conditions is a critical part of the monitoring strategy and will therefore be emphasized in the EA.

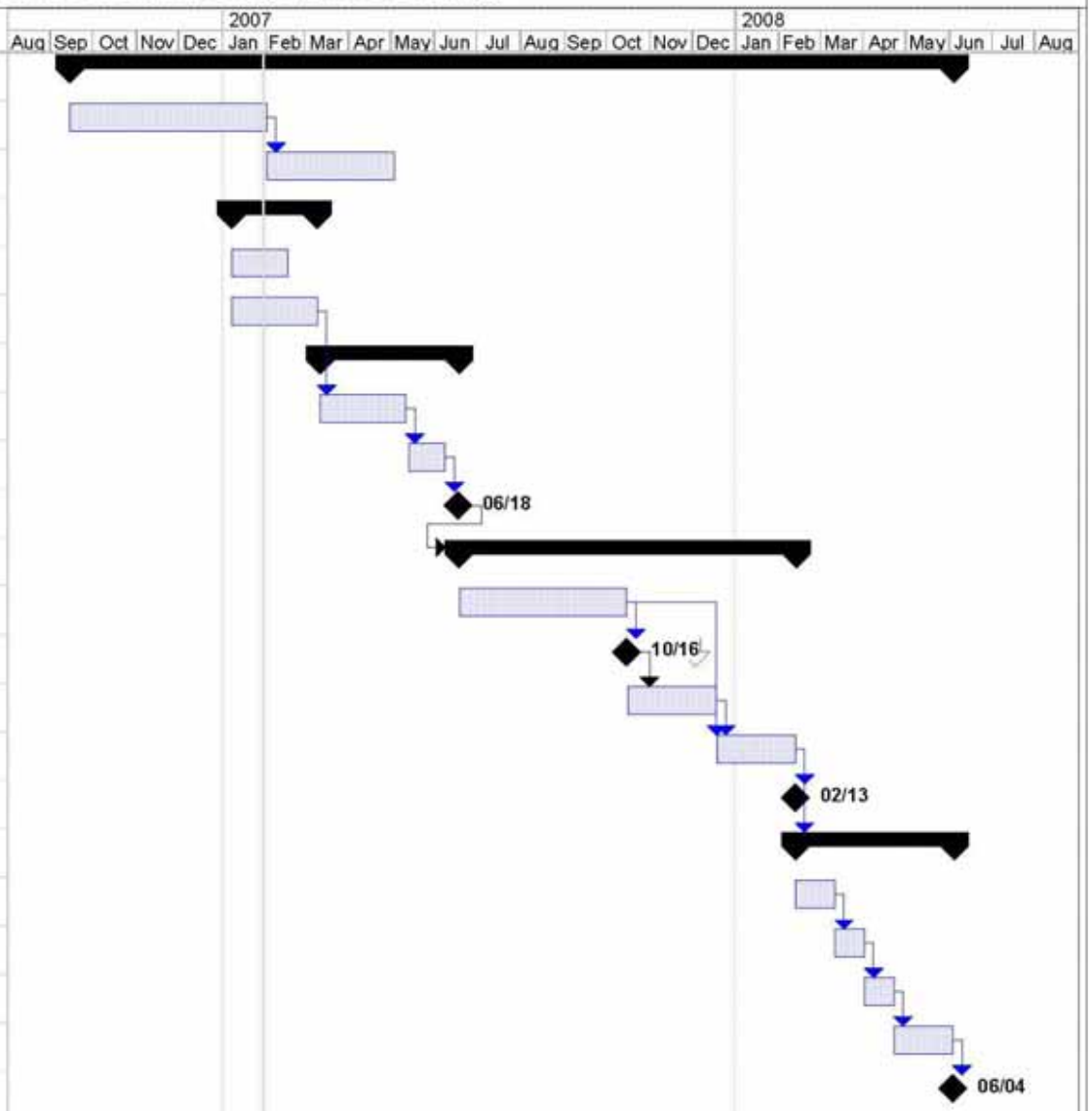
The EA will describe how the proponent will achieve compliance (e.g. technical agencies approval and satisfy public interest) and how the compliance will be reported. The proponent or its contractor will be required to obtain all permits from regulatory agencies (e.g. MOE, TRCA, MNR, DFO, Transport Canada) prior to construction and will ensure compliance with all permits and conditions throughout the work.

APPENDIX A

Preliminary EA
Study Schedule

PRELIMINARY STUDY SCHEDULE - DON MILLS TRANSIT IMPROVEMENTS EA (Subject to Change)

ID	Project Name
1	**Don Mills Transit Improvements EA**
2	Terms of Reference preparation
3	MOE Review & Approval
4	**Phase 1 - Study Initiation**
5	Study Design
6	Update Inventory of Existing/Future Conditions
7	**Phase 2 - Confirm Rationale For Undertaking**
8	Update Rationale for Undertaking/Needs Assessment
9	Confirm & Screen Corridors/Technology Options
10	PIC #1, Workshops
11	**Phase 3 - Alternative Methods (Designs)**
12	Identify and Evaluate Corridors/Technology Options
13	PIC #2, Workshops
14	Evaluate Physical Configuration Options
15	Assess Preferred Design Concept
16	PIC #3, Workshops
17	**EA Documentation and Approval**
18	Draft EA Report
19	Government Review Team - Circulation
20	Committee & Council Report & Approval
21	Finalize EA Report
22	Submit EA Report to MOE



Project: Project plan 2006-2009 TP All
Date: Tue 01/30/07

Task
Split
Progress
Milestone
Summary
Project Summary
External Tasks
External Milestone
Deadline