TORONTO STAFF REPORT

May 12, 2005

To: Works Committee

From: Ted Tyndorf, Chief Planner and Executive Director, City Planning
W. Leslie Kelman, Acting General Manager, Transportation Services

Subject: Morningside Avenue/Markham By-pass Extension
Individual Project Environmental Assessment Study
Status Report
File 02 035534 ESC 42 TM
Ward 42 - Scarborough Rouge River

Purpose:

To report on the findings to date of the Environmental Assessment Study being conducted by York Region for the extension of the Markham By-pass southerly from Highway 407 to meet Morningside Avenue in the Morningside Heights Community, and to develop a City Council position on the technically preferred alignment. Staff from Finance, Economic Development, Toronto Water and Technical Services have been consulted in the preparation of this report.

Financial Implications and Impact Statement:

There are no direct financial implications arising from this report. The extension of Morningside Avenue on the technically preferred alignment south of Steeles Avenue is estimated by the project team to cost well over $26 million plus property costs. Currently no funds are allocated in the City's budget for this project. Preliminary planning by York Region has indicated that the portion of the Markham By-pass north of Steeles Avenue is to be completed by 2012. A further report on the financial implications for the City of Toronto is recommended in this report.

The finalising of an alignment for the Markham By-pass Extension would remove the uncertainty surrounding this project and free up lands in the affected reserves for residential and employment use development.

Recommendations:

It is recommended that:

(1) City Council advise York Region that it does not endorse the technically preferred alignment for the extension of Morningside Avenue south of Steeles Avenue East, as developed in the Environmental Assessment Study for transportation improvements in the Markham By-pass Corridor south of Highway 407;

(2) City Council request York Region to:

(a) re-evaluate Alignment C, that being the City's preferred alignment south of Steeles Avenue East, and advise City Council of the implications of either maintaining Steeles Avenue at its approved width of four traffic lanes, or widening Steeles Avenue East to a maximum of six traffic lanes; and

(b) conduct additional community consultation with City of Toronto residents following completion of this further evaluation of Alignment C, with notice being provided to the residents in consultation with City staff;

(3) the General Manager of Transportation Services and the Chief Planner and Executive Director of City Planning, in consultation with the City Solicitor, report back to Works Committee on the legal and financial implications for the City of Toronto should York Region apply for and receive Environmental Assessment approval for the technically preferred alignment; and

(4) the appropriate City Officials be authorized and directed to take the necessary action to give effect thereto.

History:

A brief history of land use and transportation planning in this area over 20 years since the mid 1970's is provided in Attachment 10, together with the planning and transportation context in the study corridor.

Transportation Facilities

In 1995, Scarborough and Metropolitan Toronto participated with Markham and the MTO in an Environmental Assessment Proposal (EAP) study for a possible Markham/Scarborough Transportation Link. Attachment 1 illustrates the regional context, major land holdings in the area, and the broad corridor covered by that study.

The purpose of the study was to define the scope of a follow-on EA Study by eliminating possible alignments that would be neither feasible nor acceptable for various reasons, including the Provincial policy established in 1990 on "no new roads through Rouge Park". The study report came before Scarborough Council in September 1995 with staff recommendations to arrange for wide public consultation on the findings and to report further on any required changes to the study document but Council tabled the report and requested that staff provide

further information. In March 1996 Scarborough Council decided not to proceed any further with a Highway 401/407 link as it became clear that there would be little or no Provincial funding available for the follow-on EA Study and the construction costs. Contrary to the Scarborough position on this matter, the Town of Markham endorsed the EA Proposal study in 1995.

Morningside Heights

A group of developers known as the Morningside Heights Landowners' Group (MHLG) purchased industrially-designated land in the eastern part of the Tapscott Employment District bounded on the west by the CPR Havelock and cross-connector rail lines and on the east by the Rouge River valley. In 1985 they applied for residential uses and eventually in October 1997 appealed their applications to the OMB. The OMB hearing, which was held in the Fall of 1998, dealt with the land use and transportation issues in the area. York and Durham Regions and the Town of Markham all supported protection of a new arterial road in the Morningside Corridor. Due to their concerns with the 401/407 link alignment options around Morningside Avenue, York and Durham Regions and the Town of Markham were parties to the hearing. The Province was also a party due to its continuing interest in a north-south road link in the area outside the Rouge Park boundaries.

Prior to the Morningside Heights hearing, in July 1998 Toronto City Council adopted Report 13 Clause 5 of Scarborough Community Council and Report 8, Clause 1 of the Urban Environment and Development Committee, and resolved to:

(a) confirm that no major road should be built in Rouge Park; and

(b) endorse the position taken by the Scarborough Community Council that it does not support any road connection between Highway 407/The Markham By-pass and Highway 401 as it is detrimental and negative to the proper planning of the Morningside Heights area.

That report also contains further background on the Morningside Heights development history and proposals.

The Morningside Heights OMB Decision rendered in February 1999 approved residential uses and provided for a Morningside Avenue extension in a 36 m right-of-way through part of the Morningside Heights lands, with a condition that an EA Study for the northerly extension to Steeles Avenue be submitted for approval by December 31, 2005, or that the Terms of Reference for such a study be submitted for approval by December 31, 2004. Failing such submissions, the further extension of Morningside Avenue to Steeles Avenue is to be completed through the plan of subdivision process.

The Decision is reflected in the Morningside Heights Secondary Plan policies, and transportation issues are covered in Policy 25 which also refers to the potential for the Morningside Avenue extension to continue beyond Steeles Avenue. Policy 25 is reproduced as Attachment 9 to this report together with further policies which relate to local roads and to stream crossings. As well, the Secondary Plan Land Use Map shows a protected Buffer Reserve that could accommodate the Morningside Avenue Extension along the south side of the CPR Havelock line (see Attachment 3).

Background:

Official Plans

In Policy 16.3.8 the Durham Region Official Plan supports a "north/south freeway connection between Highway 401 and Highway 407 in the City of Toronto and the Town of Markham". The York Region Official Plan also shows a Markham By-pass Extension into Toronto on Map 9 (see Attachment 7).

The Key Map on page 1 above shows schematically the road improvements to be achieved through the development of Morningside Heights or in association with the creation of this new community of some 3,000 homes. In 2006, the intersection of Morningside and Finch Avenues will be reconfigured and two grade separations involving the CP railway lines will be constructed by the City under a Class EA Study approved in 2002, and funding approved in 2005. From the new Finch Avenue intersection to Neilson Road/Oasis Boulevard, Morningside Avenue has been extended by the developers' group. The Morningside Heights Secondary Plan provides a further extension to Steeles Avenue and potentially beyond, with the sunset dates mentioned in the Morningside Heights section above, and also provides that the proponent for the required EA Study "may be a public body or a private entity or a public/private partnership".

The Morningside Heights OMB Decision also ordered an amendment to the Metropolitan Toronto Official Plan (MetroPlan) to indicate on the road maps that a triangular area was to be protected south of Steeles Avenue for the Morningside Extension (see Attachment 4). As well, the Scarborough Official Plan, Roads Plan Schedule 'C', was ordered amended to show a range of possible extension alignments, similar to the north-pointing arrows on the Key Map on page 1 of this report.

When the new City of Toronto Official Plan, as adopted by Council in November 2002, was before the Minister of Municipal Affairs and Housing for approval, one of the Minister's modifications was the inclusion of language from the OMB Decision concerning the Morningside Avenue extension, to preserve the sunset dates for the completion of an EA study.

EA Study Initiation

On September 6, 2001 York Region Council adopted Report 11 Clause 6 of its Transportation and Works Committee, which authorised the study to begin and consultants to be retained to carry it out. The study is the required Individual Project EA Study for the link from Highway 407 south to the terminus of the Morningside Avenue Extension, which further connects to Highway 401. York is the sole proponent for the "Markham By-pass Extension" EA Study and the firms of McCormick Rankin Corporation and Totten Sims Hubicki have been retained to carry it out. City of Toronto staff were invited to participate on the Technical Advisory Committee (TAC) overseeing the study process.

Tapscott Employment District Servicing and Development

The development of the Morningside Heights Community included servicing capacity for the adjoining Tapscott Employment District which is currently greenfield unserviced land. A group of landowners in approximately the area from Passmore Avenue north to Steeles Avenue and from Tapscott Road west to State Crown Boulevard has joined together to arrange for the lands to be serviced. A Functional Environmental Servicing Plan (FESP) has been developed by the Group. This plan includes design concepts for such things as storm water management ponds, piped services and a network of local roads, but has not yet been approved by the City. This

issue is discussed at some length in Economic Development and Parks Committee Report 4 Clause 16 and Report 7 Clause 3 from 2003. Council in September 2003 authorised staff to prepare a Front-Ending Agreement with the landowners' group to facilitate servicing and consequent development in Tapscott, to the extent possible. The location of stormwater management ponds may need to have regard for the pond locations being recommended in conjunction with the preferred alignment for the new road.

The following two applications are being impacted by the uncertainty over the alignment of the Markham By-pass extension:

(1) The Manufacturer's Life Insurance Company. This 22.640 hectare property is located on the south side of Steeles Avenue, north of Passmore Avenue, west of the Morningside Tributary and CPR Havelock line, and lies within the protected area shown on Attachment 4. The application is for Subdivision Approval and proposes 3 blocks of industrial land over 18.865 hectares, a 1.044 hectare stormwater management pond, a 1.00 hectare buffer reserve block alongside the CPR line, two blocks for road widenings (one along Steeles Avenue and one along Passmore Avenue), 0.209 hectares in size, and a proposed road, running north-south through the property between Steeles Avenue and Passmore Avenue which would take up 1.522 hectares.

(2) Tap-Steeles Investments Ltd. This 26.0 hectare property is located on the south side of Steeles Avenue, and north of Passmore Avenue, and has frontage along the east side of Tapscott Road. The application is for Subdivision Approval, and proposes 5 blocks of industrial land over 24.26 hectares, a 0.32 hectare road widening along Steeles Avenue, and a proposed L-shaped road, which occupies 1.42 hectares and may be the future extension of Select Avenue to Steeles Avenue. It is located directly west of the abutting Manufacturer's Life Insurance (ManuLife) property. While it lies outside the protected area, potential alignments for the Morningside Avenue extension include one along the joint property line with ManuLife and others across the ManuLife property, and their location would affect the siting of the proposed north-south road on the Tap-Steeles lands.

The applications have been circulated for comment, but no reports have been prepared. Neither application is draft plan approved.

Attachment 4 shows the area of land in the Tapscott Employment District that is being protected for possible alignments for the Markham By-pass extension under the OMB-ordered Official Plan policies and map amendments. No development applications in this area can be approved until a final alignment is determined and approved through the current EA Study. As well, because the new road is to be a high-order arterial link, its location and alignment govern the location and intersections of future connecting local roads to serve the abutting properties. Consequently servicing over a wider area cannot be resolved until the EA Study is completed, since sewer and water and other utilities will need to follow the new road network.

Comments:

Environmental Assessment Study Process

The project is being undertaken as an Individual EA as a result of the complexity of the project involving a range of alignments and possible transportation technologies, as well as major environmental considerations with respect to the Rouge River and Morningside Creek valley

systems. This process, mandated by the Ontario Environmental Assessment Act, requires that a Terms of Reference (ToR) first be developed and submitted for approval by the Minister of the Environment (MOE). Once the ToR is approved, work on the actual EA study can begin. The area included in the study of alternative alignments is shown on Attachment 2. Significant public, agency and City staff input was involved in the development of the ToR. This is reflected in the final ToR that was approved by the Minister of the Environment on July 13, 2004. Since no realistic alternatives had yet been ruled out, there was little to report to City Council at that time.

The ToR sets out how the EA will address the following EA Act requirements:

(a) A description of the purpose of the undertaking (the project);
(b) A description of the rationale for:
    The undertaking;
    Alternative methods of carrying out the undertaking;
    Alternatives to the undertaking;
(c) A description of the environment that may be affected, effects caused to the environment, and the actions required to mitigate the environmental effects;
(d) An evaluation of the advantages and disadvantages to the environment; and
(e) A description of public and agency consultation.

A Technical Advisory Committee (TAC) has been involved at all key stages of the EA process. Representation on the TAC includes staff from the City of Toronto (former WES and City Planning), Town of Markham, MTO, TRCA, CP Rail, Region of Durham, Canadian Environmental Assessment Agency, York Region Planning Department and the project team (York Region Transportation and Works Department and the Consultants). TAC members identified key relevant issues to be addressed through the study and ensured quality control over the public consultation, technical evaluation and reports.

The follow-on EA Study began in 2004 and comprised extensive analysis of the alternatives against the goals, criteria and environmental factors included in the ToR.

Public consultation

There has been extensive consultation with the public throughout the whole study process, as required under the EA Act. A project web site was set up where information is posted as each stage of the study is completed. A total of four rounds of Public Consultation Centres (PCC's) have been held. City staff have attended each round to provide information on the planning context in the City of Toronto and to take note of public comments on the proposal.

The first PCC was held on December 11, 2002 at the Rouge River Community Centre near the hamlet of Box Grove. The purpose of the meeting was to introduce the study, provide information on the existing conditions, present the study process and outline the next steps. The local City of Toronto ward councillor attended this meeting and requested that future PCC's include a venue in the City, near the Morningside corridor if possible.

The second set of PCC's was held on June 12, 2003 at the Rouge River Community Centre and on June 17, 2003 at the Scarborough Civic Centre. The purpose of these meetings was to present the need and justification for the proposed undertaking, the "Terms of Reference" process and the next steps in the study. The information to be included in the ToR was presented to the public for input and comment.

Following approval of the ToR in July 2004, a third set of PCC's was held on October 13, 2004 at the Box Grove Community Centre and on October 14, 2004 at the Scarborough Civic Centre. At these meetings, the presentation included a summary of the need and justification for the undertaking, a recommendation on the preferred solution and the introduction of the alternative alignments to be assessed.

The final set of PCC's has recently been held, on April 20, 2005 at the Box Grove Community Centre and on April 21, 2005 at Heritage Park Public School on Old Finch Avenue in Toronto. At these meetings, the analysis of the various alternative alignments against the evaluation goals and criteria was presented, along with the features of the resulting technically preferred alignment and the next steps in the study process leading to the anticipated filing of the EA report in the Fall.

All PCC's involved the services of a professional facilitator and a real-time stenographer so that the audience could see their questions and comments, and the project team responses, recorded for the study report.

In addition to the open forums of the PCC's and the Internet web site, special meetings have been held with affected property owners along the routes, resulting in some changes where possible to reduce the impacts.

The major comments from the public up to and including PCC #3 include:

- concern with the value of constructing more road capacity;
- concern with the usefulness of such a circuitous route from Highway 48 north of Markham to Highway 401 at Morningside Avenue;
- concern that this road could become a designated truck route;
- concern that this road could become a new highway;
- concern regarding the potential impact on the natural environment; and
- preference for a discontinuous or jogged alignment using Steeles Avenue.

PCC #4 had the highest participation from City of Toronto residents. Full details of the comments are not yet available, but City staff attending the meeting noted the following most frequent comments and concerns from City residents:

- additional commuter traffic passing through their community;
- being unaware of the plan to extend Morningside Avenue to Steeles Avenue and beyond;
- support for enhanced transit services, including the use of rail lines;
- the choice of people to live in Cornell and other areas of Markham resulted in increased traffic in Toronto; and
- additional noise impacts on the community resulting from additional traffic.

It was clear that the residents from Toronto felt a larger area in Toronto should be consulted and that they would like more community consultation before this stage of the study is over.

Alternative Solutions and Alignments

Many alternative technologies and different alignments were identified. For example, the ability of a new GO Transit service on the CPR Havelock line to address the demand for transportation in the corridor was assessed. The complete list of alternatives with a list and description of the

key factors used in the evaluation can be found in Attachment 11. The result of the evaluation of the alternatives, using the key factors, resulted in Alternative 7 - Base Case, plus Transit Initiatives plus Travel Demand Management plus a New Road Alignment (Markham Bypass Corridor South of Highway 407) - being selected as the preferred undertaking. This alternative would provide the additional north-south capacity necessary to support planned development growth as well as provide future flexibility for additional transit or roadway improvements.

Alternative 7, the proposed solution to the predicted demand for travel between Durham Region, York Region and the City of Toronto in this corridor, is a 36 m arterial road right of way to accommodate four traffic lanes, two bicycle lanes and two sidewalks initially, with the potential to add two more lanes of traffic over time. The road would also provide for surface transit service with the potential to introduce High Occupancy Vehicle (HOV) or transit-only lanes as demand requires. The solution also anticipates the use of transit-supportive policies and Travel Demand Management measures in the corridor to reduce auto traffic, as well as the construction and provision of all currently approved planned York Region, Town of Markham and City of Toronto transportation system enhancements (road widenings, new transit services etc).

Once Alternative 7 was selected, the next step was to develop, analyze and evaluate alternative methods of carrying it out. To this end, a set of alternative alignments for the new road was developed and evaluated. The list of alternative alignments along with a list of the criteria used in the evaluation can be found in Attachment 11. For example, the best location for the road to cross the Rouge River was examined in terms of loss of vegetation on the approaches to and within the valley. The analysis included input from environmental specialist consultants and agencies such as TRCA, and field inspections of some critical locations.

Most of the alignments ran south from Highway 407 along the protected corridor in Box Grove for some distance, and then turned west or south. Some used the existing Ninth Line to Steeles Avenue, while some crossed the CPR Havelock line at some point east of Ninth Line, and then turned west either along Steeles Avenue or into the Buffer Reserve in Morningside Heights. Attachments 6 and 7 show Alignment C and Alignment 6 respectively which illustrate just two of the possibilities of this type.

Other alignments crossed Ninth Line and proceeded west across the Rouge River, the CNR York rail line and the Parkview Golf Course at various locations, then turned south and crossed Steeles Avenue near the Morningside Creek. Some of the second group of alignments were grade separated at Steeles Avenue with various connecting ramps proposed, due to the degree of skew at the crossing points.

It should be noted that much technical advice was provided by the agencies represented on the TAC. As well, EcoPlans, the environmental sub-consultant, carried out three season field surveys over the 4 years of the study, and the project team along with TRCA and Toronto Water staff walked parts of some of the alignments in the river crossing areas during January 2005.

The result of the evaluation of the alternative alignments was that alternative A3b was selected as the Technically Preferred Alternative. It is illustrated in Attachment 5.

Some of the benefits identified by the proponent of this alternative are:

- Access would be provided to existing and proposed development;
- Impact to natural features would be minimized; and
- A continuous route would be provided.

Some alternative alignments were ruled out quite late in the process following the completion of the Eastern Markham Strategic Review in July 2003, which concluded that the Urban Area should not be expanded south of the CPR Havelock line. As well, the Province announced the Greenbelt Plan, which runs right up against the CPR Havelock line north of Steeles Avenue, and which could hinder significant urban development in that area. Without development to serve, a new road in this area would not make sense.

Alternative C and its family of alignments would require a jog along Steeles Avenue. The predicted combined traffic volumes on both roads could only be handled by an 8 lane cross-section, which would be extremely unusual for a municipal road. Although no new water crossing structures would be required, existing bridges and culverts over the watercourses would have to be widened with consequent possible damage to the natural environment. Substantial earthworks would also be required to drive the road through the rolling terrain along Steeles Avenue. A complex multi-level bridge could be required at the "asterisk" where Ninth Line and the two rail lines all cross (see Attachment 2). However, alignment C most closely corresponds to the alignment preferred by the City of Toronto prior to the 1999 Morningside Heights OMB Decision.

A more complete discussion of the principal reasons for rejecting other alternatives and selecting A3b as the preferred alignment is provided in Attachment 11. The full range of alignments evaluated is shown on Attachment 12, and the full evaluation matrix is available on the web site.

Technically Preferred Design

The technically preferred alignment being recommended by the Project Team is illustrated on Attachment 5. This high-order arterial road has an 80 km/h design speed and is expected to be posted at 60 or 70 km/h. All horizontal and vertical curves support this design speed. Signalized intersections are expected at existing and planned major roads, but the preferred spacing is at least 400 m and direct driveway access is to be minimised or completely prohibited through the "Reversed Lots or other Restricted Access" designation.

A 36 m right-of-way is proposed, with potentially more land being required at intersections and bridges. This could support a 6 lane road although it is anticipated that 4 lanes would be constructed at first, as well as bicycle lanes and sidewalks. The resulting road would be similar to the existing Morningside Avenue north of Casebridge Court and McLevin Avenue.

According to the preliminary design, the road would use the reserved Planned Link corridor through the new Box Grove Secondary Plan area from the Highway 407 interchange with the existing Markham By-pass south to Ninth Line. On the approach to Ninth Line it would turn west and cross Ninth Line just north of the crossing of the CPR Havelock line and the CNR York line. There would be an intersection with Ninth Line to and from the south only as Ninth Line is to be dead-ended from the north. The new road would continue west over the Parkview Golf Course to cross the Rouge River valley on a 260 m-long bridge, turning more to the south to cross under the CNR York rail line about 400 m west of the high level viaduct, and then running south along the Parkview property line to Steeles Avenue.

At Steeles Avenue there would be a full moves intersection, and the new road would continue into the City of Toronto, turning west again to cross the Morningside Creek on a 150 m-long bridge about half-way between Steeles Avenue and the CPR Havelock line. The road would then sweep to the south to intersect with Passmore Avenue, run south along the west edge of the

Malvern Remedial Site and cross over the CPR Havelock rail line before joining the City road system at Oasis Boulevard and the McNicoll Avenue extension. A small crossing structure would be required over the Neilson Tributary on this last leg of the route. The geometry would allow for a local road connection into the Tapscott employment lands between Steeles and Passmore Avenues.

York Region and Town of Markham Positions

At its meeting on April 6, 2005 the York Region Transportation and Works Committee (TWC) considered a staff report on the EA study. The report recommended that the technically preferred alignment be endorsed and staff be authorised to continue with the process, with the EA report to be submitted for public review and Ministry of the Environment approval. Staff were to be further directed, following approval of the EA Study, to investigate opportunities to begin implementation of the Undertaking in conjunction with area land development and to report back. The Committee amended the report by resolving that the technically preferred alignment be received, and that staff be directed to report back on further consultation and the comments received to the Committee's June 1, 2005 meeting. The report as amended was adopted by Regional Council at its April 21, 2005 meeting (Clause 1 of Report 4 of the Transportation and Works Committee).

The study was also presented to the Markham General Committee at its April 18, 2005 meeting. The Committee received the presentation and resolved that "Staff meet with the Region and the Consultant to address the concerns of both large and small land owners, and that the process include an investigation of clear span bridges for the crossings of the Rouge River and its tributaries in the planning stage including some cost estimates and how they may be implemented." (Clause 12 of the Minutes of the General Committee meeting no. 7).

Deputations were heard at both Committee meetings mentioned above. It is clear from the Committee actions reported that the Region and the Town of Markham are not yet convinced that this project should be supported.

It is worth noting another item that was considered by York Region TWC on April 6, namely a report on Provincial highway transfers concerning portions of Highways 48 and 7. York Region agreed to designate the Markham By-pass (as it exists today between Highways 48 and 407) as a truck route, among other matters. As well, the report discussed the question of the Region entering into a Connecting Link Agreement with the MTO for the Markham By-pass between Major Mackenzie Drive East and Highway 407, and recommended that the Region not do so at this time.

This matter is of interest to the City of Toronto because it confirms that the Markham By-pass is considered to be a connecting link, defined as "a highway or part of a highway as a connecting link between parts of the King's Highway or as an extension of the King's Highway, to be constructed and maintained by the road authority having jurisdiction over the highway or part of the highway." In other words, it is a road under local municipal authority but fulfilling a Provincial transportation function. Further connecting the By-pass to Highway 401 via the Morningside Avenue extension would strengthen this inter-regional Provincial function. As such, the issue of funding should be raised with the Province if this undertaking receives approval from the MOE.

Next Steps and Implementation

It is currently envisaged that the project team will consider the final round of public input and prepare an EA Report to be draft circulated to the MOE and Government Review Team in Spring 2005. City staff expect to be invited to comment on this draft. Formal submission of the EA Report for the statutory public review and MOE approval is scheduled for Fall 2005 with approval anticipated early in 2006. A final City Council position would be provided at the statutory review stage.

York Region staff are anticipating that at least the 3 km northern portion of the Markham By-pass extension will be implemented in conjunction with the build-out of the Box Grove Secondary Plan and will cost $12.8 million, with another $4.4 million required for the new Highway 407 ramps. Site works have begun for these subdivisions. There would be a temporary connection to Ninth Line for some years. The 1.8 km section west of Ninth Line that crosses the Rouge Valley and connects to Steeles Avenue is planned for completion by 2012 and is expected to cost $18.8 million. York Region staff expect that the City of Toronto will look after implementation of the 2.2 km section south of Steeles Avenue which has an estimated cost of $26 million. None of these cost estimates includes property acquisition costs.

What this means for Toronto

The position of Toronto City Council in the past has been that the Morningside Avenue extension should end at Steeles Avenue, and Alternative C is the closest to achieving that goal. However, under Alignment C Steeles Avenue would have to be widened to 8 lanes. To date, Steeles Avenue has been approved for widening to 4 lanes but the portion within the study area is currently only a 2 lane road. Thus, if Alignment C were chosen the result would be the potential for significant local impacts with no distinct operational advantages. York Region should be requested to evaluate Alignment C with either 4 or 6 lanes on Steeles Avenue.

Development of the vacant lands in the Tapscott Employment District is dependent on the resolution of a variety of servicing issues, including the road network to access the lands and to carry the piped services and utilities. The Landowners' Group has prepared a Functional Environmental Servicing Plan (FESP) which includes an extension of Select Avenue easterly across Markham Road. This local road network, east of the properties lying along the eastern side of Tapscott Road, cannot be finalised until the Markham By-pass extension alignment has been determined.

Accordingly, the City needs to ensure that the chosen alignment will in fact serve those lands well and allow for a good grid of connecting local roads. The technically preferred alignment would permit industrial activity along the rail line. Economic Development staff encourages such activity and hopes that rail freight usage will be provided for, when this and any other alignments are being evaluated. Some industrial operations in the area already make use of private rail sidings for their freight operations.

The City is also concerned with protecting the natural environment and the quality of life of the residents along the alignment and its alternatives. Based on the EA evaluation to date, the technically preferred alignment has the least impact on these matters. If the undertaking is not built within the City of Toronto the inevitable increase in traffic between York Region and the City of Toronto in both directions will lead to infiltration through rural and residential areas on streets and roads which were not designed to carry through traffic. Roads in Rouge Park like

Beare and Sewells Roads will continue to carry commuter traffic. New routes like Oasis Boulevard and Staines Road within Morningside Heights will feel the pressure as well.

City staff are of the opinion that inter-regional traffic belongs on an arterial road designed to carry it. The planning for Morningside Heights included planning for the Morningside Avenue extension, and the technically preferred alignment places as much of the new road as possible south of Steeles Avenue in an industrial area west of the CPR line. After crossing the CPR, the Morningside Avenue extension continues at the extreme western edge of the new community where it will serve the planned Business Park as well as collecting residential traffic destined both north and south to employment areas.

However, notwithstanding the policies in the Morningside Heights Secondary Plan and the analysis completed on the alternative alignments for the Markham By-pass extension, which both support a continuous high order arterial road connection across Steeles Avenue, the fact is that completion of the road west of Ninth Line will be costly, complex and controversial. East of Ninth Line much of the road will be built by the Box Grove developers. The traffic will then have to be carried on Ninth Line and Steeles Avenue as unimproved roads for many years, forcing traffic onto a discontinuous route, similar to the condition under Alignment C.

For the City of Toronto, a preferable solution would be to extend Morningside Avenue from Passmore Avenue due north along the mutual property line of ManuLife and TapSteeles to Steeles Avenue. The developers could then be requested to construct the road, possibly in partnership with the City to obtain a 4 lane facility. At the same time, York Region and the City could partner to implement the approved 4 lanes on Steeles Avenue to address at least part of the travel demand. For the longer term, the environmental impacts of widening the existing structures on Steeles Avenue to accommodate 6 lanes should be revisited and compared with the impacts of crossing the Rouge River valley and the Morningside Creek on completely new structures. A policy decision may have to be made that not all of the predicted travel demand is going to be satisfied and that congestion will be a fact of life.

The technically preferred alignment is very expensive due to the number of river, creek and rail crossings that would be required. York Region's construction cost estimates show the Morningside Avenue Extension component of the technically preferred alternative south of Steeles Avenue coming in at $26 million excluding property acquisition costs. To date the City has devoted no funding towards this undertaking. Given the inter-regional nature of this alternative and the fact that this would be the eastern connection between Highways 401 and 407 within York Region and the City of Toronto, the Province should be requested to contribute to funding the cost of this road.

If the technically preferred alignment or a similar version should receive MOE approval, then staff should report back to Council on the legal and financial implication for the City given the City's lack of support for this alignment south of Steeles Avenue.

Conclusions:

Completion of the EA Study for the Morningside Avenue/Markham By-pass extension within the timeframe laid out in the Morningside Heights Community Secondary Plan, as ordered by the OMB in 1998, will end the uncertainty surrounding the alignment and enable much-needed development in the north-east end of the Tapscott Employment District to proceed.

While inter-regional traffic should not infiltrate through residential streets and areas in Morningside Heights and Malvern, the planning for Morningside Heights included planning for the Morningside Avenue extension, and for the direction of inter-regional traffic to the edges of the established residential communities along major arterial roads, which is appropriate.

The technically preferred alignment places as much of the new road as possible south of Steeles Avenue in the industrial area west of the CPR line. After crossing the CPR, the Morningside Avenue extension continues at the extreme western edge of the new community where it will serve the planned Business Park as well as collecting residential traffic destined both north and south to employment areas. South of Finch Avenue, the existing Morningside Avenue is bordered by employment uses or the backyards of residential uses, such that the impact of additional traffic would be minimized. However, the technically preferred alignment is not the best for promoting development, and is very costly.

While City staff prefer the Morningside Avenue extension portion of Alignment C, and this alignment most closely reflects the previous direction of City Council, the proposed widening of Steeles Avenue to eight lanes is not desirable. York Region should be requested to re-evaluate Alignment C, identifying the impacts of widening Steeles Avenue to the approved four lanes or to a maximum of six lanes. In addition, it would be appropriate for further public consultation to involve residents along the route further south than the limits of the York Region study area.

City staff will report back on the legal and financial implications for the City, should York Region apply for and receive EA approval for the technically preferred alignment, as this is an unusual situation in that York Region is the proponent for undertaking the Morningside Avenue extension within the City of Toronto.

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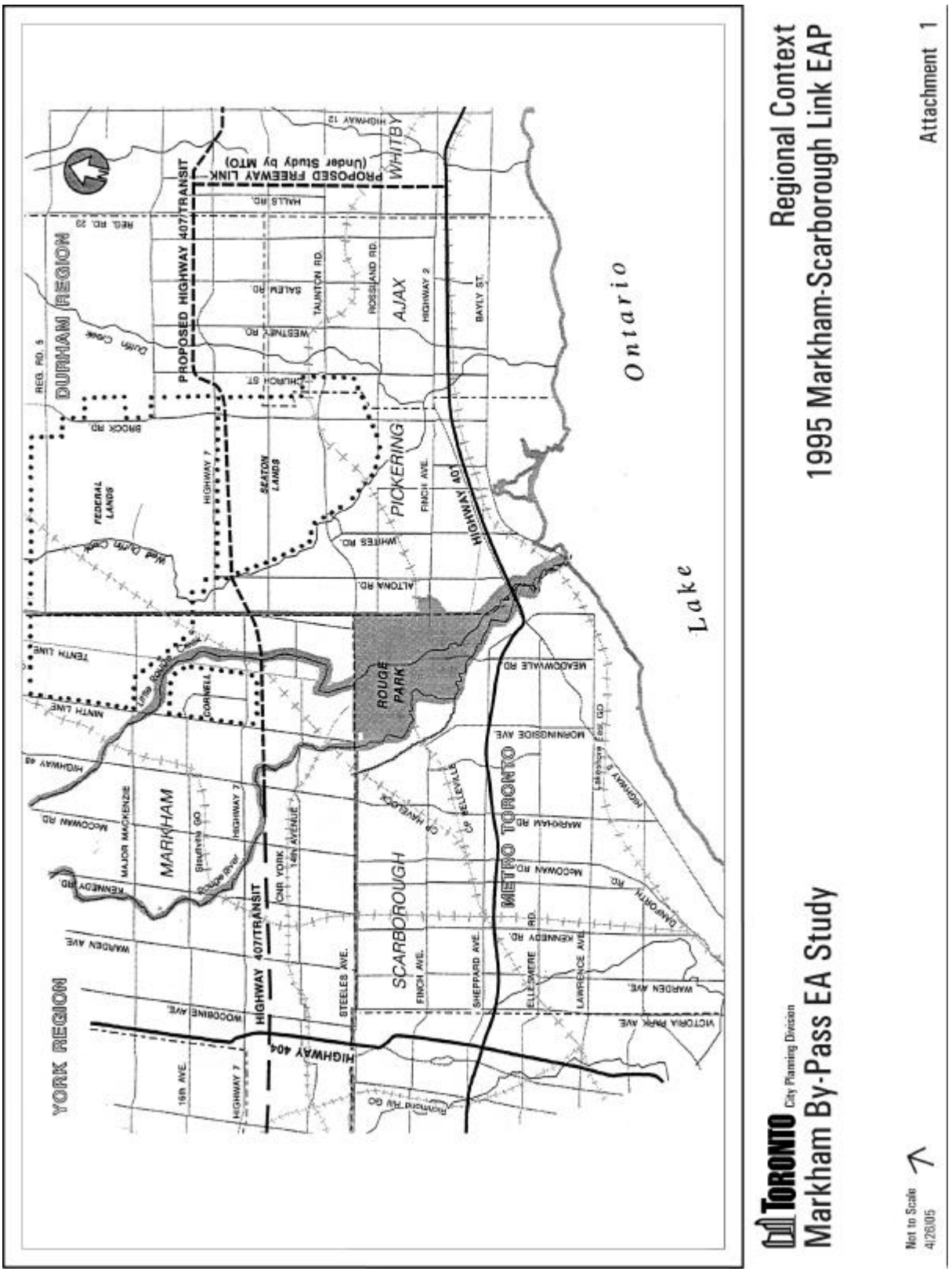
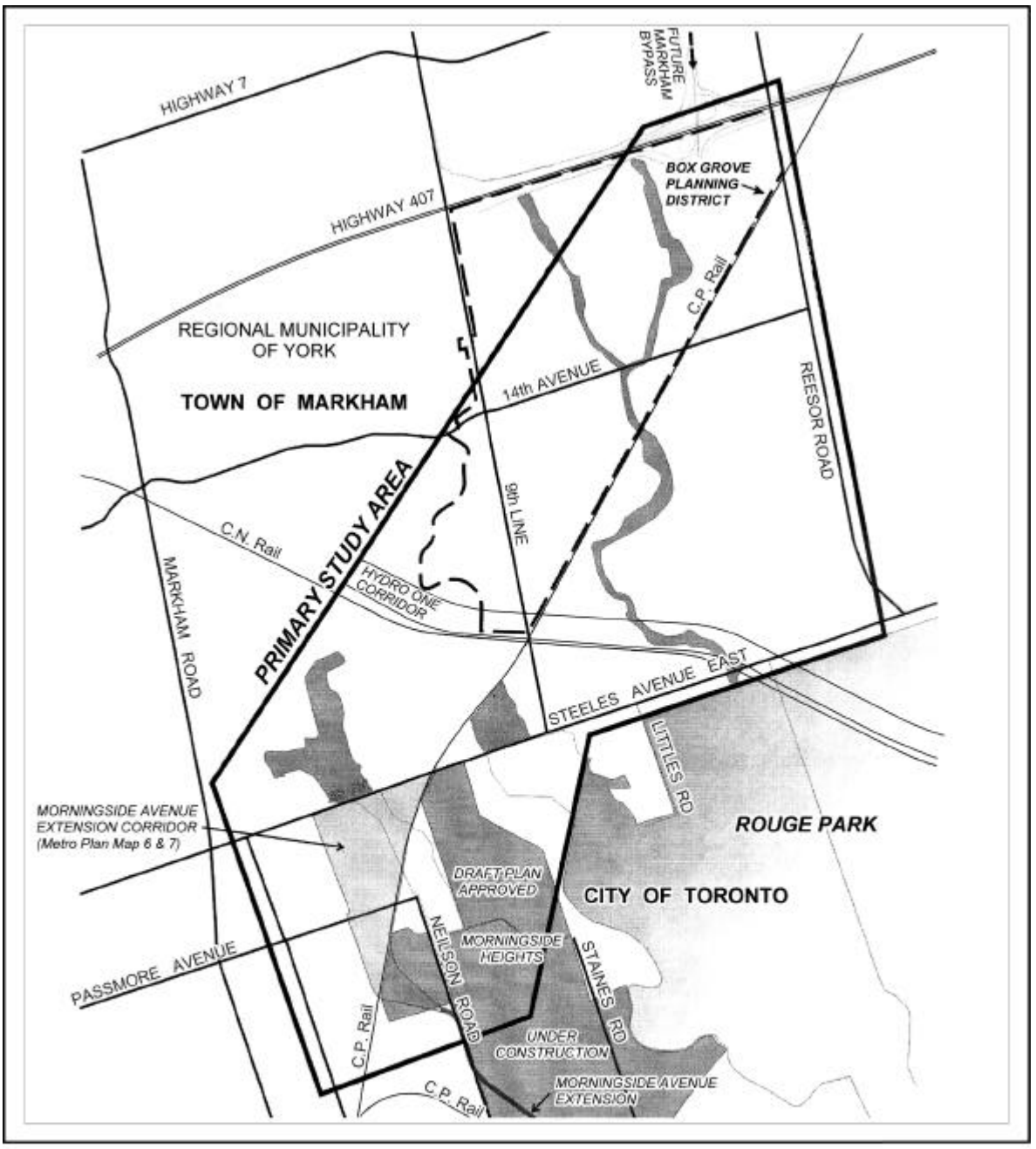
List of Attachments:

1. Regional Context – 1995 Markham-Scarborough Link EAP
2. Primary Study Area
3. Morningside Heights Community Secondary Plan Map
4. Protected Area in Tapscott Employment District
5. Technically Preferred Alternative
6. Alignment C
7. Alignment 6
8. York Region Official Plan Map 9
9. Excerpt from Morningside Heights Community Secondary Plan
10. Transportation Planning and Context
11. Environmental Assessment Process
12. Preliminary Alternative Alignments (Hard copy only)

Attachment 1 : Regional Context – 1995 Markham-Scarborough Link EAP



Attachment 2 : Primary Study Area



TORONTO City Planning Division

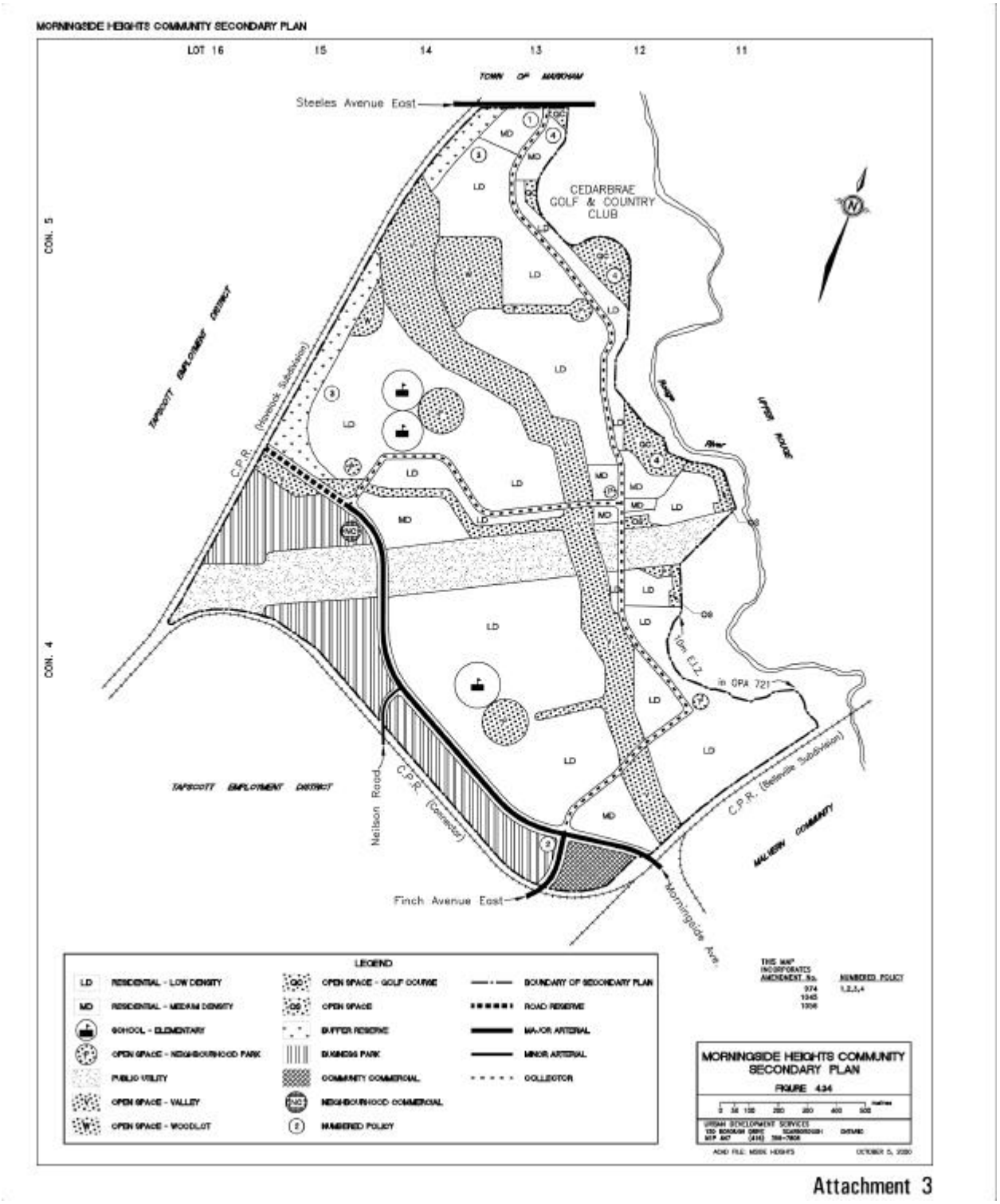
Markham By-Pass EA Study

Primary Study Area

Not to Scale
4/26/05

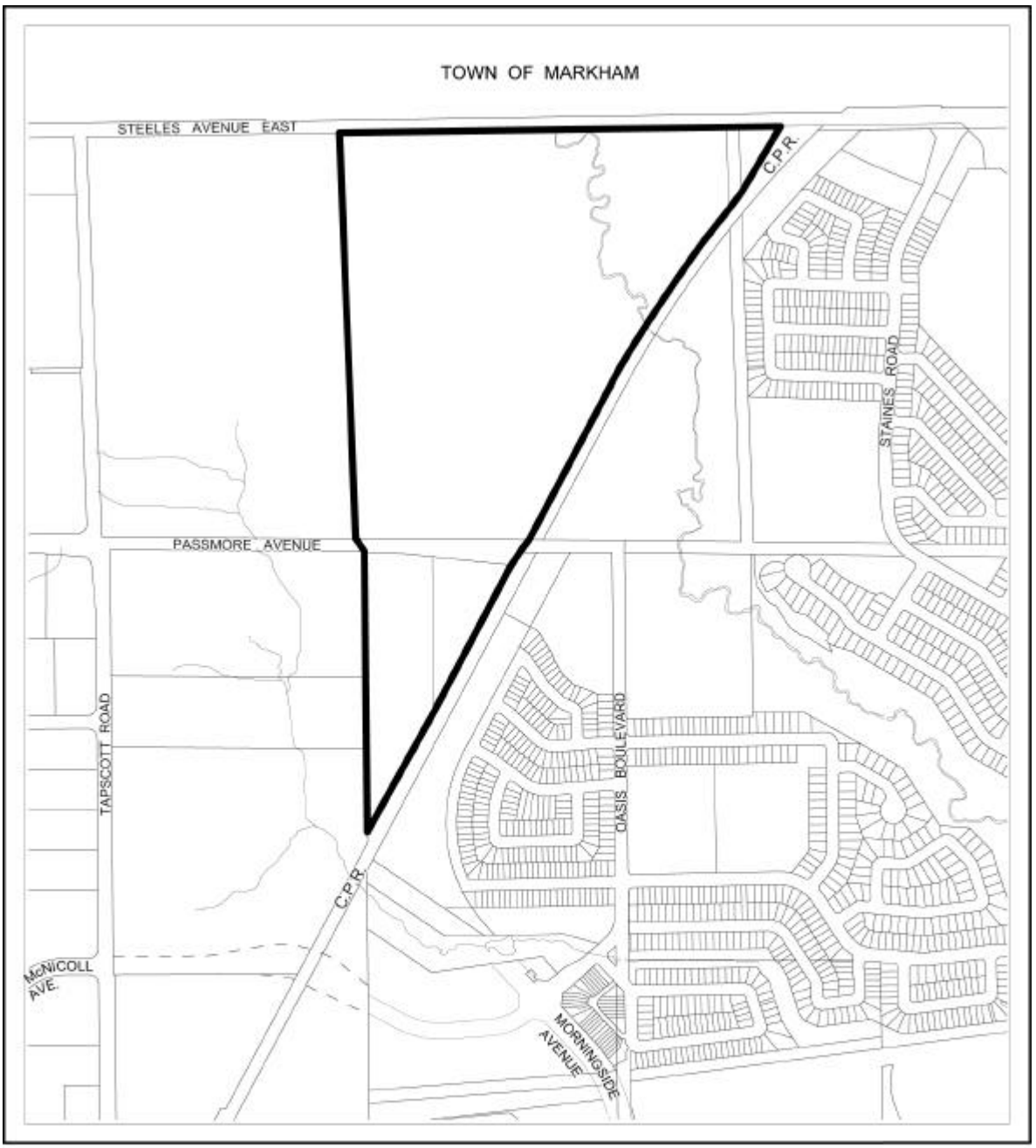
Attachment 2

Attachment 3 : Morningside Heights Community Secondary Plan Map

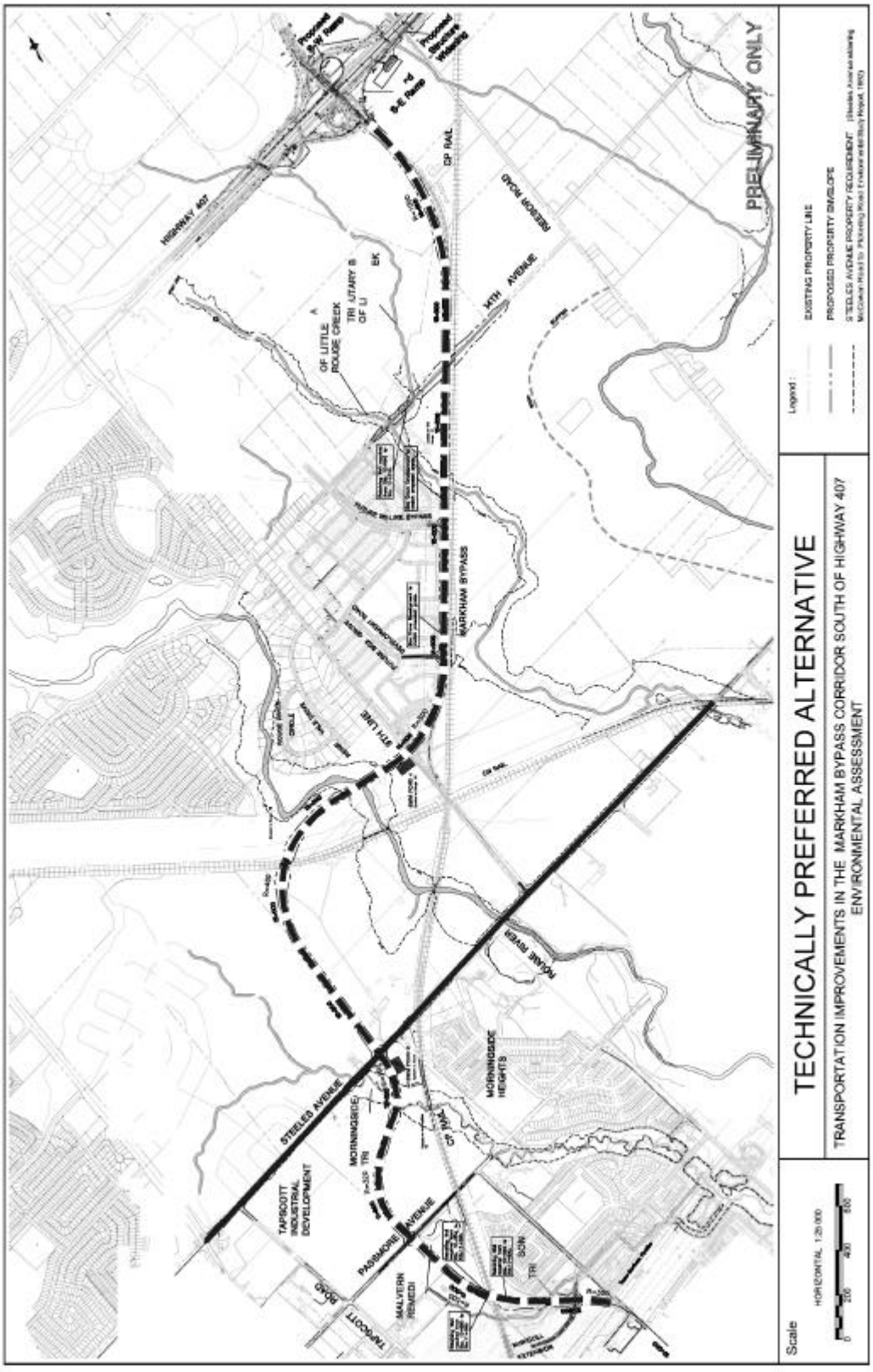


Attachment 3

Attachment 4 : Protected Area in Tapscott Employment District

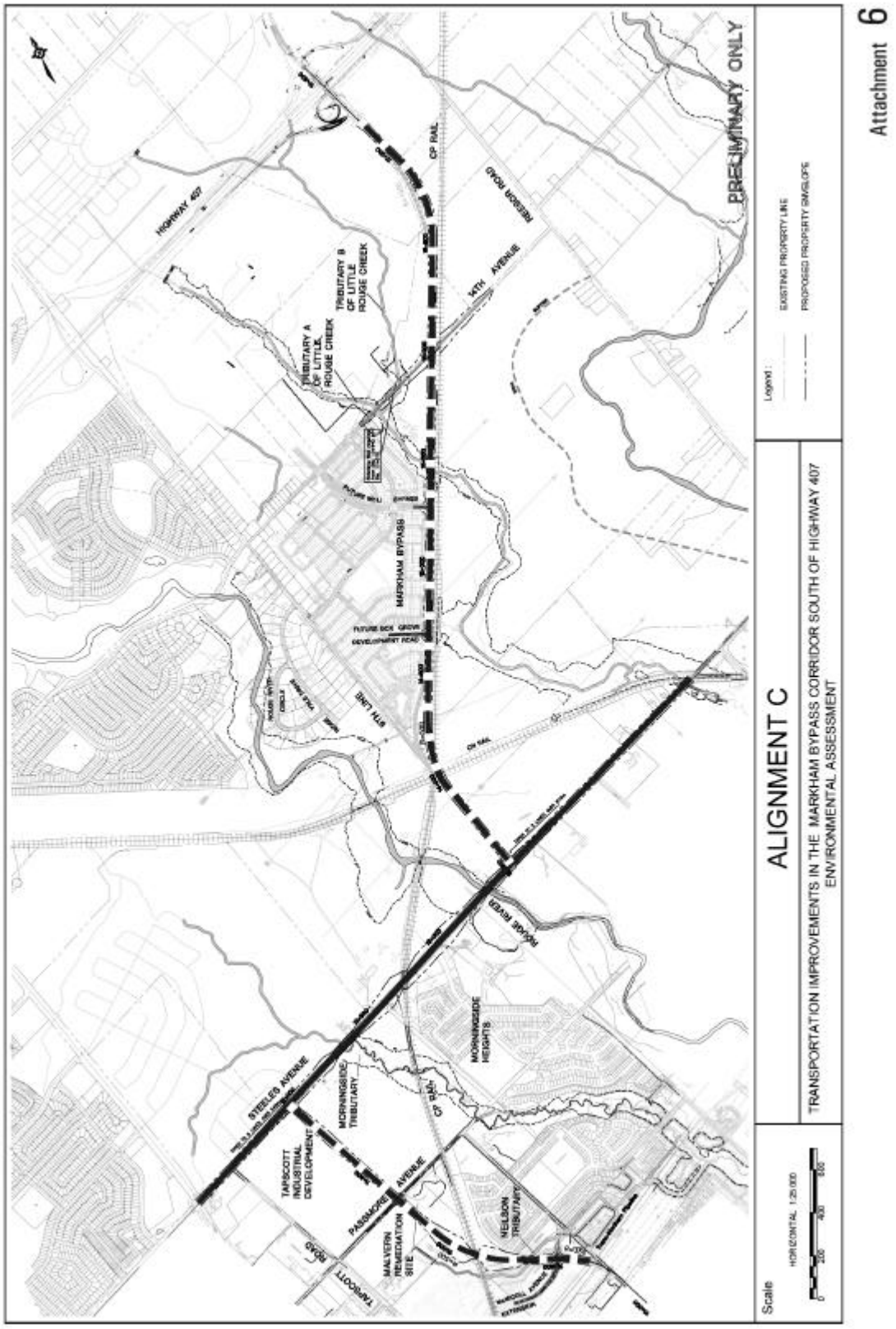


Attachment 5 : Technically Preferred Alternative

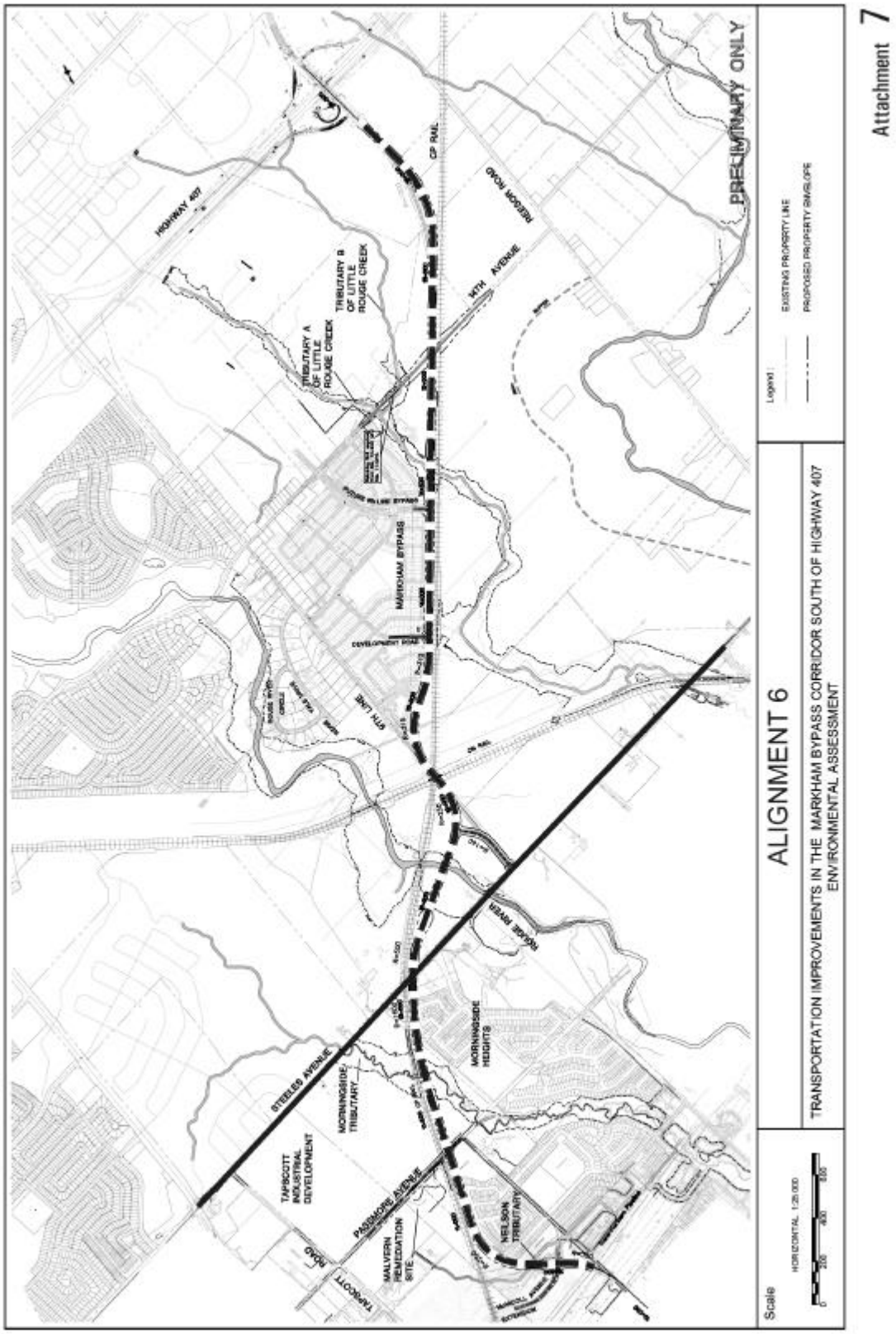


Attachment 5

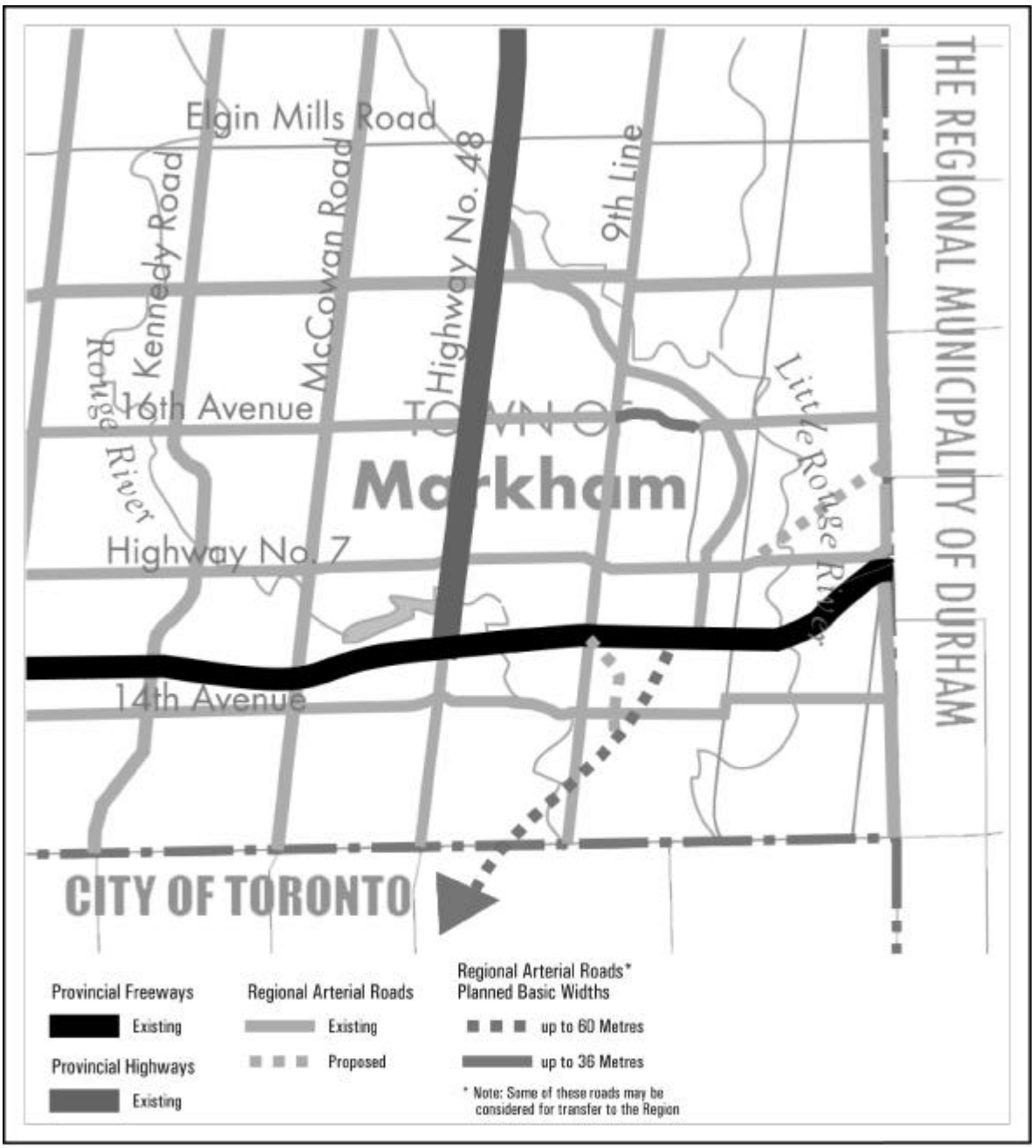
Attachment 6 : Alignment C



Attachment 7 : Alignment 6



Attachment 8 : York Region Official Plan Map 9



TORONTO City Planning Division

Markham By-Pass EA Study

Extract from Map 9
York Region Official Plan

Not to Scale
4/26/05

Attachment 8

Attachment 9 : Excerpt from Morningside Heights Community Secondary Plan

Transportation

25. **Morningside Avenue**

Morningside Avenue is to be extended in connection with the development of the Morningside Heights Community as an arterial road with reversed lots or other restricted access, as shown on the Road Plan, Schedule "C", to the point where it meets the east-west collector road, north of the Hydro right-of-way. Except where required for the design of intersections, access points or structures, its right-of-way width shall not be more than 36 metres. Notwithstanding Section 2.2.2 of the Scarborough Official Plan, the pavement width may be constructed initially to accommodate only 4 lanes of traffic and necessary turning lanes, with additional lanes to be added as required. Construction may be phased and may include a temporary cul-de-sac. Its alignment shall be designed to achieve a minimum design speed of 80 km per hour. Crossings of any of the tributaries within the Secondary Plan shall be sensitive to the environment and shall be established in consultation with the TRCA.

The need for future grade separations and/or adequate traffic storage capacity at the CPR Connector crossings at Neilson Road and Finch Avenue East shall be assessed at the time of subdivision approval and the potential for such improvements shall be protected if the future need is demonstrated. The need for such improvements shall be assessed on the assumption that Morningside Avenue will be further extended to Steeles Avenue and directly connected across Steeles Avenue to an arterial road in Markham.

The alignment of Morningside Avenue within the Secondary Plan area is intended to be at the interface between residential and other uses. The right-of-way for Morningside Avenue shall be located no closer than approximately 100 metres from the CPR Connector line, as measured from the easterly limit of the rail right-of-way. Refinements to the alignment at the subdivision approval stage to accommodate grade separations/storage capacity, access requirements or to achieve adequate separation distances shall not require an amendment to this Plan.

The further extension of Morningside Avenue to Steeles Avenue as a 36 metre arterial road with reversed lots or other restricted access is intended to be completed in a location to be determined by an environmental assessment pursuant to the *Environmental Assessment Act.* The environmental assessment process shall determine the alignment of Morningside Avenue to Steeles Avenue and the location of the intersection with Steeles Avenue. The environmental assessment shall be conducted in consultation with all interested parties, including adjacent municipalities. The proponent for this environmental assessment may be a public body or a private entity or a public/private partnership. The alternative alignments to be considered in the environmental assessment shall include

potential alignments on the west side of the CPR Havelock Subdivision rail right-of-way and on the east side, in the Buffer Reserve.

The potential extension of Morningside Avenue as a 36 metre arterial road from its intersection with the east-west collector road north of the Hydro corridor to the CPR Havelock Subdivision rail corridor is shown on Figure 4.34 as Road Reserve. The completion of this potential section of Morningside Avenue is subject to approval pursuant to the *Environmental Assessment Act* and shall not be completed until the environmental assessment process has been completed or the time for submission of the environmental assessment for approval has lapsed.

The east-west collector north of the Hydro corridor may be extended across the intersection with Morningside Avenue into and through the **Business Park** to the CPR Havelock Subdivision rail corridor in a location that the collector could be connected directly through to the intersection of Tapscott Road and McNicoll Avenue. Further extension of the collector across the rail corridor shall only occur if it would not in any way compromise potential alignment options for, or limit potential rail crossing to accommodate, the extension of Morningside Avenue to Steeles Avenue and potentially beyond, in accordance with the *Environmental Assessment Act* and the provisions of this Secondary Plan.

If the extension of the east-west collector is constructed prior to the environmental assessment being completed, it may utilise an at-grade crossing of the CPR Havelock Subdivision which may replace the existing Passmore Avenue at-grade crossing. However, in the event that it is determined by the environmental assessment that Morningside Avenue should be extended across the CPR Havelock Subdivision and that the at-grade crossing for the east-west collector should be closed, that crossing must be closed.

Should the environmental assessment not be submitted for approval by December 31, 2005, or if Terms-of-Reference for the environmental assessment have not been submitted for approval by December 31, 2004, the extension of Morningside Avenue to Steeles Avenue may instead be completed through the subdivision approval process, and the requirements of this Secondary Plan to:

(i) assess the future need for grade separations and/or storage capacity at the Neilson and Finch crossings of the CPR Connector on the basis of an assumed continuous connection to an arterial road in the Town of Markham; and

(ii) maintain the potential for an alignment through the Buffer Reserve,

shall both lapse.

The proponent of the extension of Morningside Avenue to Steeles Avenue shall, once it has submitted the environmental assessment for approval, pursue such

approval in good faith and with due diligence, with the objective of minimizing the ultimate length of the approval process.

The finalization of the alignment for Morningside Avenue within the Secondary Plan area also depends upon the completion of the environmental assessment for the reconstruction of the Finch/Morningside intersection. The environmental assessment for that intersection shall be completed prior to or concurrent with the environmental assessment for the further extension of Morningside Avenue to Steeles Avenue and potentially beyond.

Should Morningside Avenue be extended across the Havelock Subdivision railway corridor, the road/rail crossing may be grade separated or, alternatively, it may be an at-grade crossing. This at-grade crossing may replace the existing at-grade crossing at Passmore Avenue or the at-grade crossing utilized by the extension of the east-west collector, as the case may be, upon closure of such crossing.

Should Morningside Avenue not be extended across the Havelock Subdivision railway corridor, services may be extended to the railway right-of-way.

Responsibility for the cost of future grade separations shall be determined during approval of draft plans of subdivision, in accordance with applicable planning and development charge legislation.

During the initial phasing of arterial road construction or reconstruction, interim access to Morningside Heights and to the residential and other development permitted by this Secondary Plan, will continue to be provided from existing Finch Avenue, Staines Road, Neilson Road, Passmore Avenue and Steeles Avenue.

26. **Collector and Local Streets**

The Morningside Heights residential community will be served by a comprehensively planned internal network of public streets, with a limited number of appropriately-located connections to the surrounding arterial roads. Collector Streets shown on Figure 4.34 will provide the main points of connection with arterial roads in the residential area. Vehicular crossings of the Morningside Tributary are to be limited to two sites in order to minimize impact on the stream corridor while providing necessary vehicular linkages between the different neighbourhood areas of the community.

Local Streets are not shown on Figure 4.34.

Both local and collector streets will be designed in accordance with the policies of this Secondary Plan, and with regard for the Urban Design Guidelines. This street network will be designed to meet the needs of pedestrians and accommodate public transit service, and to discourage the infiltration of regional traffic. Traffic calming

measures and designs, including turning restrictions, round-abouts, all-way stop intersections and other design techniques may be employed in this regard.

26A. **Road Crossings of Tributaries**

Crossings of any of the tributaries within the Secondary Plan shall be sensitive to the environment and shall be established in consultation with the TRCA. The design concepts, siting and location shall be finalized to the satisfaction of the City and the TRCA in a manner which addresses:

- pedestrian and wildlife access in the valley corridor;
- watercourse dynamics;
- aquatic habitat; and
- the safe passage of Regulatory Flood flows.

Attachment 10: Transportation Planning and Context

Early Planning History

During the 1970's, the Province was directly involved in planning for development around Metropolitan Toronto (Metro). Part of that planning involved the new towns of Seaton in north Pickering and Cornell in east Markham, an extensive green buffer between them and the Metro boundary, and transportation facilities to serve the new settlements and the planned Federal airport in Pickering. Highway 407 and the East Metro Freeway link south to Highway 401 were major facilities planned at that time.

Although it did not support a new freeway, Metro did designate the East Metro Transportation Corridor (EMTC) in its 1980 Official Plan. The EMTC was also designated in some parts of the Scarborough Official Plan. The Metro and Scarborough Official Plans also indicated that Morningside Avenue would extend north to Steeles Avenue, as an arterial road with a 36 m right-of-way, and potentially beyond.

East Metro Transportation Corridor

In order to continue with planning for the East Metro Freeway, in the early 1980's the Province carried out an Environmental Assessment (EA) Study. The EA report was reviewed by Scarborough staff, with the result that staff found no justification for a freeway to be built in the proposed location. A further point was that the preferred alignment would have crossed the Rouge River at the Finch Meander, which is one of the most environmentally significant areas of the Rouge River System. Accordingly, in April 1988 Scarborough Council voted to no longer support the retention of the EMTC within the former City's boundary. The Province did not proceed further with the EA at that time.

Rouge Park

In 1990, the Province declared the establishment of Rouge Park, and the Minister of Transportation announced the withdrawal of the previous EMTC proposal and stated that there would be no new roads permitted south of Steeles Avenue through Rouge Park (within its boundaries as defined on March 26, 1990). The permitted uses within the Park were articulated through the Rouge Park Management Plan adopted by the Province in 1994, which supported the "no new roads" policy.

Subsequently, in 1995 the Ontario Municipal Board (OMB) decided the land use designations within the Upper Rouge area, which basically preserved Rouge Park through a Regional Natural Environment designation. More recently, the Park has been further protected by the Provincial Greenbelt Plan and legislation.

There has been substantial growth in Durham and York Regions and there is strong pressure for travel demand into, out of and through Toronto to be met through road improvements. Several studies have quantified the travel demand in terms of vehicle trips in the morning peak hour. In 1994, the Ministry of Transportation (MTO) conducted two reviews of travel demand between Highways 401 and 407 within the "Morningside Corridor".

Planning and Transportation Context

Prior to the creation of the Morningside Heights Community, the then Metro and Scarborough Official Plans showed a Morningside Avenue or Staines Road connection to Steeles Avenue as a

36 m arterial road. In fact, on the original 1957 Roads Plan, Schedule 'C' to the Scarborough Official Plan, the extension had a notation north of Steeles Avenue indicating "To Stouffville". As shown on Attachment 7, the York Regional Official Plan Map 9 indicates a schematic road link extending south from Highway 407 into the City of Toronto. This arterial road link may have a right-of-way of up to 60 m.

On June 26, 2002 the Town of Markham adopted OPA 92 which created the Box Grove Planning District Secondary Plan. The Region of York approved the Town OPA in November 2002 and adopted the implementing OPA 39 to the Regional Official Plan. Both were appealed to the OMB, and finally approved with minor modifications on December 15, 2003. Similar to the Morningside Heights Community, this is a new community in eastern Markham, lying mainly east of Ninth Line and extending north from the CPR Havelock line to Highway 407. It provides for employment uses close to Highway 407, and a variety of community facilities such as schools, places of worship, parks and open spaces, as well as a mix of housing forms which is expected to yield 2,600 units.

A network of local and collector roads is proposed; the existing hamlet of Box Grove is to be protected from through traffic by the creation of a new Ninth Line by-pass and a realignment of 14th Avenue though the new community; and a 36 m wide arterial road corridor is provided for along the north side of the CPR Havelock line. The road corridor as a "Planned Link from the Markham By-pass interchange with Highway 407 south to Steeles Avenue East and beyond" is to be the subject of an EA study with the same sunset dates as applied in Morningside Heights. If the EA dates are not met, the Planned Link may be completed as a Town arterial road through the subdivision planning process.

York Region and the Town of Markham have been protecting for the Planned Link through the development approval process, but at the same time precluding some possible alternative routes. For example, the "Villages of Fairtree" subdivision north of Steeles Avenue and east of Markham Road was approved in the path of a possible Morningside Avenue Extension north from the City of Toronto's preferred route due north to Steeles Avenue as submitted to the 1998 OMB hearing on Morningside Heights.

As approved in 1999 by the OMB, the Morningside Heights Community is to be developed with a variety of mainly low density housing to yield some 3,000 units. Several schools and parks are provided for, and a large area of natural open space is protected, such as woodlots, streams and the Morningside Creek corridor. The Morningside Creek has been re-naturalised through the development process. Storm water management ponds have been created in the Hydro corridor and at the south-eastern edge of the community to ensure high quality discharge into the Rouge River system. Commercial and employment uses are provided for along the east side of the CPR cross-connector rail line at the south-west edge of the community, and are buffered from residential uses by the Morningside Avenue extension. Construction began in 2001 and has proceeded at a prodigious rate, with the community approaching full build-out of the residential units. One school is also under construction. Attachment 3 illustrates the community design.

Subdivision design approval dealt with the internal road system and access to the new community across the barriers of the boundary rail lines. One solution to this issue, which relates to emergency service access among other matters, was to require the construction by the Morningside Heights Landowners' Group (MHLG) of a McNicoll Avenue extension east from its current terminus with Tapscott Road where there is a Fire Hall. A Class EA Study for the

McNicoll Avenue extension has been approved, but construction is held up until the necessary land outside the subdivisions can be acquired by the City through expropriation or by other means. To ensure that the planned McNicoll Avenue extension remains in place with its proposed at-grade crossing of the CPR Havelock line, it is important that the Markham By-pass extension be grade-separated at this rail line.

Both MetroPlan and the new Toronto Official Plan show potential GO Transit service on the CPR lines but no station locations have been determined as yet. According to CPR staff, major improvements to the rail corridor would be required to enable GO passenger service. However, VIA Rail service to Peterborough may be reinstated sooner than GO service is introduced.
TTC transit service was introduced early in the development and has gradually been extended as construction permitted. It is a very successful extension of the Neilson route. However, there is also strong demand for a connection to the Morningside bus route, which currently terminates near the intersection with Old Finch Avenue.

A narrow (6.0 metre) CPR bridge structure (overpass) presently spans Morningside Avenue between the signalized intersections of Morningside Avenue and Old Finch Avenue, and Morningside Avenue/Finch Avenue and Staines Road. As the Morningside Heights development is nearing completion and the majority of the housing units are becoming occupied, two-way traffic volumes through the narrow bridge structure opening have risen dramatically. Similarly, pedestrians are now walking through the structure opening as they travel between the subdivision and the TTC bus loop located on Morningside Avenue at Old Finch Avenue. The present width of the structure cannot accommodate two-way traffic flow and pedestrian traffic at the same time. In addition, there is not sufficient width to allow for TTC buses to travel through the opening.

In view of the increased vehicular and pedestrian activity in this area, Transportation Services staff installed pedestrian advisory signs on both approaches to the structure. To further enhance pedestrian safety through this structure, temporary (lane control) traffic controls have been installed at this location. Specifically, these signals permit only one direction of vehicular travel at a time through the structure. By doing so, sufficient space is provided for pedestrians to travel through the bridge structure, thereby significantly improving pedestrian safety. Moreover, the potential for vehicle conflicts is also be reduced as only one direction of travel is permitted at a time.

Work has begun on the design of the permanent solution at this location, the Finch-Morningside Grade Separation for which the Class EA Study was approved in 2002. This project will see a full-sized bridge under the CPR Belleville line with Morningside Avenue constructed for 4 lanes of traffic, along with bicycle lanes and sidewalks on both sides**.** As well, a new underpass under the cross-connector rail line will be constructed on Finch Avenue which will end at a new intersection with the Morningside Avenue Extension and the new Staines Road. This project has been designed to address traffic volumes to and from the proposed Markham By-pass extension. For more details, see Clause 13, Report 2 of Works Committee adopted by City Council in February 2002. Once the grade separation is built, bus routes on Morningside and Finch Avenues can be extended into Morningside Heights to serve the residents better.

Attachment 11: Environmental Assessment Process

Alternative Solutions

The first part of the EA study was to identify alternatives to the undertaking, which consisted of the following:

Alternative 1 - Do Nothing

The "Do Nothing" alternative provides a benchmark against which the other alternatives are compared. This involves the continued operation of the existing transportation system.

Alternative 2 - Widen Existing Roads (Base Case)

This alternative involves widening of the existing road network through provision of additional lanes in order to meet travel demand. This involves planned infrastructure modifications to both the north-south and east-west road network as identified in existing Plans such as Municipal Official Plans and Transportation Master Plans.

Alternative 3 - Widen Existing Roads beyond Base Case

This alternative would involve infrastructure improvements beyond those currently planned by Municipalities to accommodate expected increase in demand throughout the Study Area.

Alternative 4 - Base Case plus dedicated Transit Facility

This alternative would typically include a dedicated transit corridor either as a stand alone facility or a transitway along a road corridor.

Alternative 5 - Base Case plus Transit Initiatives

This alternative would typically include enhancements to the existing transit services including queue jump lanes, transit priority, and more frequent service. It includes all planned transit initiatives within and around the Study Area plus additional initiatives in the Markham Bypass Corridor south of Highway 407. York Region is undertaking a Rapid Transit initiative and Phase 1 of this initiative involves is estimated to shift over 7,000 commuter trips per day to public transit (rapid transit vehicles) and involves six routes as follows:

- along Davis Drive and Yonge Street from the TTC Finch Station to Newmarket;
- provide additional service along the busiest part of Yonge Corridor in Richmond Hill;
- along Highway 7 from Vaughn to Markham;
- from the Vaughn Corporate Centre on Highway 7 to the Downsview Station;
- from Markham Centre on Highway 7 to the TTC Don Mills Station;
- from the Unionville GO Station, along Highway 7 to Yonge Street, and along Yonge Street to the TTC Finch Station (weekday peak periods only).

Phase 2 will include approximately 63 kilometres of two-way dedicated transitways to separate rapid transit vehicles (RTVs) from mixed traffic. Finally, in phase 3, Prior to 2011, a comprehensive evaluation of the rapid transit network, ridership, population and employment levels, land use and travel patterns will take place. On the basis of this review, decisions regarding the conversion of various segments along the corridors can be made.

Alternative 6 - Base Case plus Transportation Demand Management (TDM)

Transit Demand Management are measures that will reduce, shift or eliminate transportation demand and provide more opportunities for live-work communities. These measures could include:

- Planning for High Occupancy Vehicle Lanes;
- Providing car-pool lots;
- Park 'n' Ride Facilities;
- Ridesharing programs; and
- Municipalities planning more transit accessible communities.

Alternative 7 - Base Case plus Transit Initiatives and TDM

This alternative will include both transit initiatives and TDM with the Base Case.

Alternative 8 - Base Case, plus a New Road Alignment (Markham Bypass Corridor South of Highway 407)

This alternative would be the Base Case plus a new road alignment. The new road alignment would initially be assumed as a four-lane facility located from the Markham Bypass south of Highway 407 to the Morningside Avenue Corridor.

Alternative 9 - Base Case, plus Transit Initiatives, TDM plus a New Road Alignment (Markham Bypass Corridor South of Highway 407)

This alternative would be a combination of alternatives to the undertaking including Transit Initiatives, TDM and a new road alignment. The new road alignment would initially be assumed as a four-lane facility with basic right-of-way width of 36 m with the protection for an ultimate six lane cross-section.

These alternatives were evaluated using the following key factors:
Socio-Economic Environment – addresses the effects of the alternatives on the components of the environment that are 'man-made' and is a measure of the effects on community features. The effects measured include:

- Displacement of community/recreation features, residences, businesses, industries, and institutions;
- Effects of potential noise increases on noise sensitive areas;
- Extend or displacement or disruption of known historical or archaeological sites;
- Potential impacts on future development.

Natural Environment – addresses the effects of the alternatives on the natural environmental features, which includes both the disruption and/or displacement of:

- Fisheries and aquatic habitat;
- Vegetation;
- Wildlife;
- Wetlands; and
- Groundwater.

Agriculture – addresses the effects of the alternatives on agriculture features which include the loss of agricultural land and soil capability; and

Transportation – identifies the extent to which the alternatives can provide a reasonable transportation service which includes:

- Proposed level of service;
- Identification of geometric features; and
- Meets the transportation needs as part of the future road network.

The result of the evaluation of the alternatives, using the key factors, resulted in the Base Case, plus Transit Initiatives, TDM plus a New Road Alignment (Markham Bypass Corridor South of Highway 407) alternative being selected as the preferred alternative to the Undertaking. This alternative would provide the additional north-south capacity necessary to support the planned development growth as well as provide the future flexibility for additional transit or roadway improvements.

Alternative Alignments

During the Terms of Reference stage, some members of the public had suggested that Meadowvale Road might be extended north of the Toronto Zoo to serve as the undertaking. Meadowvale Road has a full-moves interchange with Highway 401 and is a high-order arterial road with a planned 36 m right-of-way, 4 traffic lanes and grade-separated intersections at the main Zoo entrances. It ends at Old Finch Avenue just south of the Rouge River Bailey bridge on Plug Hat Road. Accordingly, the Project Team evaluated possible extensions even though such an alternative would see a new road through Rouge Park. A corridor was developed that avoided crossing either the Rouge River or the Little Rouge Creek by keeping to the table land between them, crossing Steeles Avenue just east of Littles Road and continuing almost due north through the eastern part of Box Grove to meet Highway 407. However, this alternative was ruled out due to its violation of the "no new roads" policy in Rouge Park; the environmental impacts it would have; and the fact that it would not serve planned development, making a second road necessary to fulfil that function.

Once the preferred alternative to the Undertaking had been selected the next step was to develop, analyze and evaluate alternative methods of carrying out the preferred alternative to the Undertaking. To this end, a set of alternative alignments were developed. The alternative alignments were divided into three groups as follows:

- Alternative alignments Northwest of the CP Rail Corridor (A series);
- Alternative alignments Southeast of the CP Rail Corridor (B series);
- Discontinuous Alignment Alternatives (C series)

The B series of alignments were eliminated due to the Eastern Markham Strategic Review that concluded that urban development should not be expanded south of the CPR Havelock line. In addition, the Province's new Greenbelt plan identifies the same area as part of the Greenbelt thereby significantly limiting urban development in this area.

The alternative alignments that were carried forward for evaluation are illustrated on Attachment 12 and are referred to as alternative alignments A1, A2, A3a, A3b, A4a, A4b, A5, A6 and C.

These alternative alignments were evaluated using groupings, factors and indicators that were based upon those outlined in the EA ToR. The groupings are as follows:

- Socio-Economic Environment;

- Cultural Environment;
- Natural Environment;
- Agriculture;
- Transportation; and
- Cost.

Alternative C and its family of alignments would require a jog along Steeles Avenue. The predicted combined traffic volumes on both roads could only be handled by an 8 lane cross-section, which would be extremely unusual for a municipal road. Although no new water crossing structures would be required, existing bridges and culverts over the watercourses would have to be widened with consequent damage to the natural environment. Substantial earthworks would also be required to drive the road through the rolling terrain along Steeles Avenue. A complex multi-level bridge could be required at the "asterisk" where Ninth Line and the two rail lines all cross (see Attachment 2). Alignment C is shown on Attachment 6.

Alignment 6 using the Buffer Reserve in Morningside Heights was not chosen because of impacts on vegetation south of Passmore Avenue and across the Morningside Creek valley. The intersection with Steeles Avenue would be very skewed and would have to be grade-separated, which would then require a connecting road or ramp for transferring traffic, which could be located at the existing Ninth Line intersection. After crossing Steeles Avenue the alignment would cross the Rouge Valley in a very sensitive section and then entail the same complex bridge at the "asterisk". In addition, it would not even serve the Tapscott Employment District. Overall, it scored the lowest of the nine alternatives carried forward for the detailed screening. Alignment 6 is shown on Attachment 7.

The result of the evaluation of the alternative alignments was that alternative A3b was selected as the Technically Preferred Alternative.

Some of the benefits identified by the proponent of this alternative are:

- Access will be provided to existing and proposed development;
- Impact to natural features would be minimized; and,
- Provides a continuous route.

Attachment 12: Preliminary Alternative Alignments

SEE COLOURED MAP