

REGION OF OTTAWA-CARLETON
RÉGION D'OTTAWA-CARLETON

REPORT
RAPPORT

Our File/N/Réf. Your File/V/Réf.	48-95-0104
DATE	14 February 2000
TO/DEST.	Co-Ordinator Transportation Committee
FROM/EXP.	Planning and Development Approvals Commissioner
SUBJECT/OBJET	TERRY FOX DRIVE ENVIRONMENTAL ASSESSMENT (EA) STUDY

DEPARTMENTAL RECOMMENDATIONS

That the Transportation Committee recommend Council approve:

- 1. The alignment of Terry Fox Drive as recommended in the EA Study, and illustrated on Figure 3 (alternative 1-2) and Figure 4 (alternative 4-1);**
- 2. The preparation of an Environmental Study Report (ESR) for Terry Fox Drive;**
- 3. The development of an environmental protection and management strategy to address mitigation measures and long term protection of the areas of the South March Highlands which are potentially impacted by the alignment.**

BACKGROUND

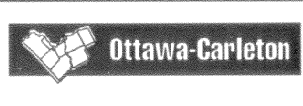
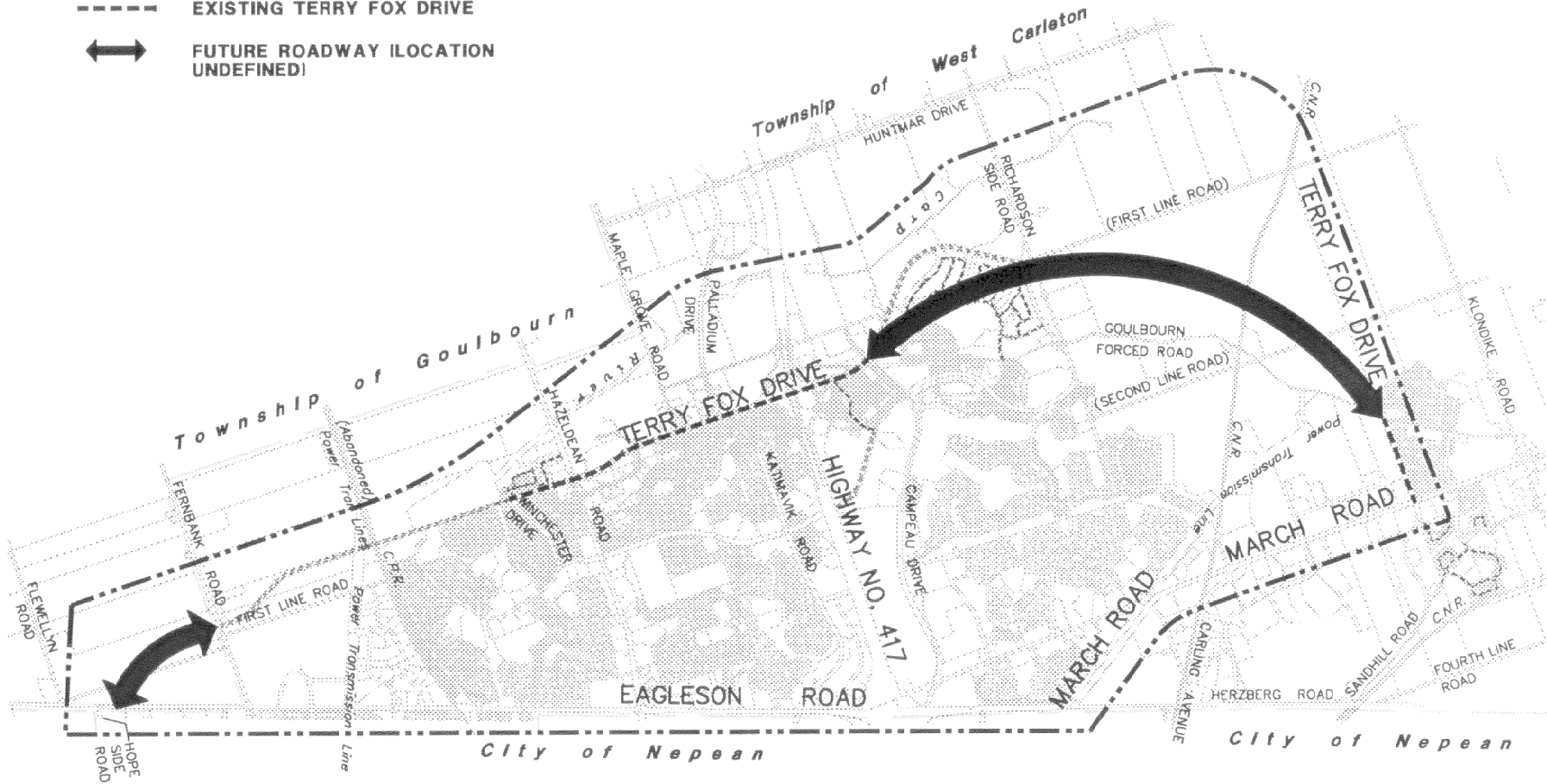
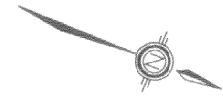
In October 1997, Regional Council approved the undertaking of an Environmental Assessment (EA) for Terry Fox Drive between March Road in North Kanata and Eagleson Road in South Kanata, as illustrated on Figure 1.

Such a study was necessary to determine the alignment and cross-section for the extension of Terry Fox Drive north of Campeau Drive and south of Fernbank Road and to identify the widening requirements for existing Terry Fox Drive between Hazeldean Road and Campeau Drive. The EA for the section between Hazeldean Road and Fernbank Road had been undertaken previously by the City of Kanata, and the results were incorporated into this study.

EA requirements for modifying the existing Terry Fox Drive/Highway 417 interchange, which is under the jurisdiction of the Ministry of Transportation, Ontario, were not specifically addressed in this EA Study although the implications of widening the existing overpass were considered in the widening options for the existing section of Terry Fox Drive between Campeau Drive and Hazeldean Road.

LEGEND

- STUDY AREA
- EXISTING TERRY FOX DRIVE
- ↔ FUTURE ROADWAY LOCATION (UNDEFINED)



TERRY FOX DRIVE
 EAGLESON ROAD TO MARCH ROAD
 ENVIRONMENTAL STUDY REPORT

STUDY AREA

SCALE: 1:50,000
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FIGURE NO. 1

The successful completion of the EA Study at this time will enable the property for the right-of-way to be acquired at minimum cost to the Region and will also enable the ROPA pertaining to the Kanata North Expansion Area approved by Regional Council on 9 February 1994 and by the OMB in January 1996, to be processed.

The cost of the E A Study has been shared between the Region and the City of Kanata.

DISCUSSION

Study Area

The study area for the project is illustrated on Figure 1. The study area boundaries were:

- Terry Fox Drive/March Road to the north;
- Eagleson Road/Hope Side Road to the south;
- Carp River to the west; and
- Eagleson Road/March Road to the east.

Environmental Assessment Process

The preferred functional alignment for the widening/extension of Terry Fox Drive was determined using a study process that followed the general principles of the Class EA process.

The widening/extension of Terry Fox Drive qualifies as a Schedule C project according to the Class EA for Municipal Road Projects. Schedule C projects require the evaluation of planning alternatives and design alternatives (i.e. alignment/cross-section) and the preparation of an Environmental Study Report (ESR). Planning alternatives were evaluated through the preparation of the Transportation Master Plan (fulfilling Class EA Phase 1 and 2 requirements), and re-confirmed in this study.

Phase 3 of the Class EA process involved the assessment of design alternatives and incorporated the following general principles of the Class EA process:

- consultation with members of the public;
- consideration of reasonable alternatives;
- consideration of aspects of the natural, social, and economic environment;
- systematic evaluation of all net environmental effects.

The fourth Phase of the EA process will involve the completion of an Environmental Study Report (ESR) which will be placed on the public record along with notices to the public and review agencies.

Transportation Issues

According to the Regional Official Plan, Kanata is anticipated to grow from a 1995 development level of 14,500 dwelling units, 58,000 population and 14,500 jobs to 32,000 dwelling units, 115,000 population and 44,000 jobs by 2021.

The transportation additions and network modifications identified in the TMP for the Kanata urban area, required by 2021, include:

- pedestrian and cyclist infrastructure
- extensions of the West Transitway through Kanata Town Centre
- light rail in the CN Railway Corridor to Kanata North
- widening and extension of Terry Fox Drive;
- construction of the Castlefrank Road overpass/partial interchange at Highway 417; and
- widening of Carling Avenue, Eagleson Road, Hazeldean Road, Campeau Drive, Katimavik Road (East), March Road and Highway 417.

Implementation of all of these facilities should be in place by 2021 to accommodate and service the population and employment growth anticipated in Kanata and to provide a level of transportation service that achieves the objectives of the Regional Official Plan.

As Kanata has a primarily north-south orientation, the forecasted growth will create significant additional demands for north-south arterial capacity. Much of the growth will be located northwest and southwest of existing communities, in areas that are currently undeveloped and, therefore, have no existing arterial road access to them.

Existing north-south arterial capacity and access is provided primarily by Eagleson Road/March Road. This corridor is located along the eastern boundary of Kanata and alone would not provide adequate service to the new growth areas. As well, much of Eagleson Road/March Road is already developed to its ultimate width (sections of March Road have already been built to 6 lanes), providing limited opportunity to increase north-south arterial capacity by widening this facility. The primary option for an additional north-south facility is Terry Fox Drive. Terry Fox Drive is a partially existing north-south roadway that runs from south of Hazeldean Road (Winchester Drive) to Campeau Drive and has an interchange with Highway 417. Existing Terry Fox Drive is designated as an existing Regional arterial from Hazeldean Road to Highway 417. The City of Kanata and Regional Official Plans propose a continuous roadway in the Terry Fox Drive corridor from March Road to Eagleson Road as a second major north-south arterial in addition to Eagleson /March Road.

The need for the widening/extension of Terry Fox Drive to create a continuous roadway from March Road to Eagleson Road (at Hope Side Road) is driven by planned development. Without these proposed modifications, there will be both a north-south arterial capacity deficiency and a north-south arterial access deficiency by 2021. The extension of Terry Fox Drive between Campeau Drive and March Road is also a specific requirement underlying the Official Plan redesignation of the Kanata North Expansion Area for urban development. This EA study has assumed a combined development to 3,100 dwelling units by 2021 in the existing South March and the future Kanata North Expansion areas, within the overall 32,000 dwelling units allocated for Kanata as a whole in the Regional Official Plan.

Design Alternatives

Although identified as a continuous roadway from March Road to Eagleson Road, the modification needs for Terry Fox Drive differed along the corridor. Based on the differing needs, the Terry Fox Drive corridor was divided into five sections, as described below, and illustrated in Figure 2.

Section 1:

Eagleson Road/ Hope Side Road to Fernbank Road There is no existing road or road Right-of-Way (ROW) in this section. This study identified and evaluated alignment alternatives for Section 1.

Section 2:

Fernbank Road to Hazeldean Road An alignment for this section has been identified by the City of Kanata and approved through a previous Environmental Assessment (EA). Detailed design and construction are proceeding in stages. Construction south to Michael Cowpland Drive is planned for the year 2000 by the City of Kanata. No alignment alternatives were considered for this section in this study. Cross-section alternatives were examined.

Section 3:

Hazeldean Road to Campeau Drive This section of Terry Fox Drive currently is a two lane road (with widenings at intersections for turn lanes) within a defined ROW. Alignment alternatives were considered within the established ROW for future widening to four lanes.

Section 4:

Campeau Drive to Goulbourn Forced Road There is no existing roadway alignment or ROW for this section of Terry Fox Drive. This study identified and evaluated alignment alternatives for Section 4.

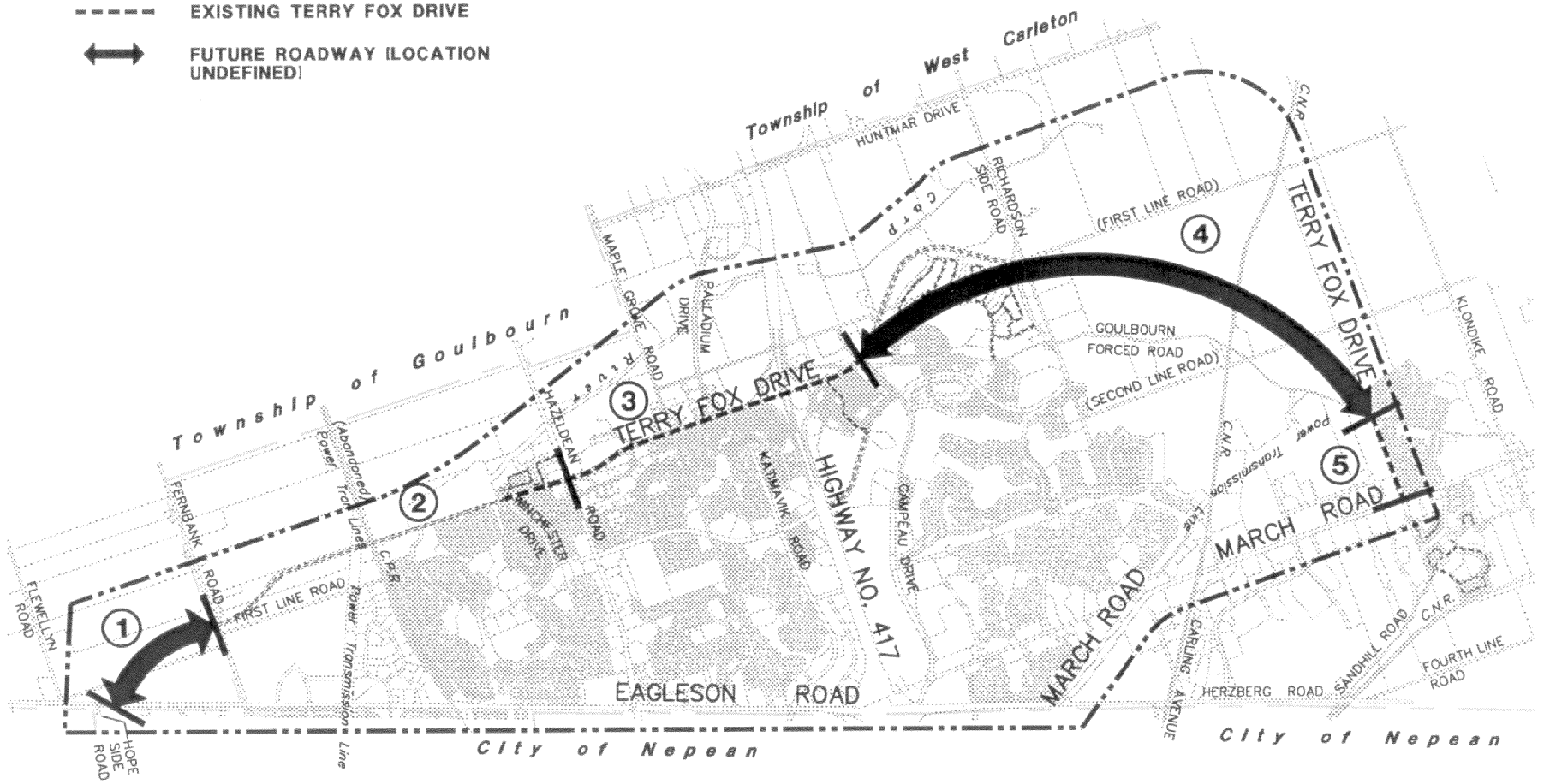
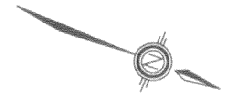
Section 5:

Goulbourn Forced Road to March Road Terry Fox Drive is an existing two lane road within a defined ROW over this section. Alignment alternatives were considered within the established ROW for future widening.

Design alternatives, including cross-section and alignment options, were developed in accordance with Regional and City policies and standards. Alternatives were evaluated on the basis of eight Criteria Groups; namely, Natural Environment, Agriculture, Social Effects, Planned Land Uses/ Future Communities, Cultural Resources, Economics, Cost, and Transportation Service. Each of the Criteria Groups were further sub-divided into criteria and indicators. Based on this evaluation, technically preferred alternatives were identified for each section, and presented to the public at the second Open House on 16 June 1999. Following public input a recommended alignment evolved.

LEGEND

- STUDY AREA
- - - - - EXISTING TERRY FOX DRIVE
- ↔ FUTURE ROADWAY (LOCATION UNDEFINED)



TERRY FOX DRIVE
 EAGLESON ROAD TO MARCH ROAD
 ENVIRONMENTAL STUDY REPORT

EVALUATION SECTIONS

SCALE: 1:50,000
 DATE: OCT. 1999

FIGURE NO. 2

Recommended Alignment

Section 1

Eagleson Road/ Hope Side Road to Fernbank Road

The alignment alternatives for Section 1, including the preferred alignment alternative 1-2, are illustrated in Figure 3. This Section is a new roadway connecting Hope Side Road, at Eagleson Road, to Fernbank Road, at the planned intersection of Terry Fox Drive (as per the City of Kanata alignment for Section 2). Hope Side Road will be realigned to the north to meet Terry Fox Drive at Eagleson Road at approximately an 81 degree angle (this is consistent with development concepts east of Eagleson Road). This section of Terry Fox Drive will have a divided urban cross-section and a design speed of 90 km/h (posted 80 km/h). This section will be constructed initially as a two lane road and later widened to four lanes. Alternative 1-2 is recommended for the following reasons:

- it provides the required level of arterial service;
- the area of agricultural land severed is minimized;
- length and construction costs are minimized;
- it is more consistent with development concepts already developed east of Eagleson Road.

The estimated cost for Section 1 is \$3.3 million (1999\$).

Section 2

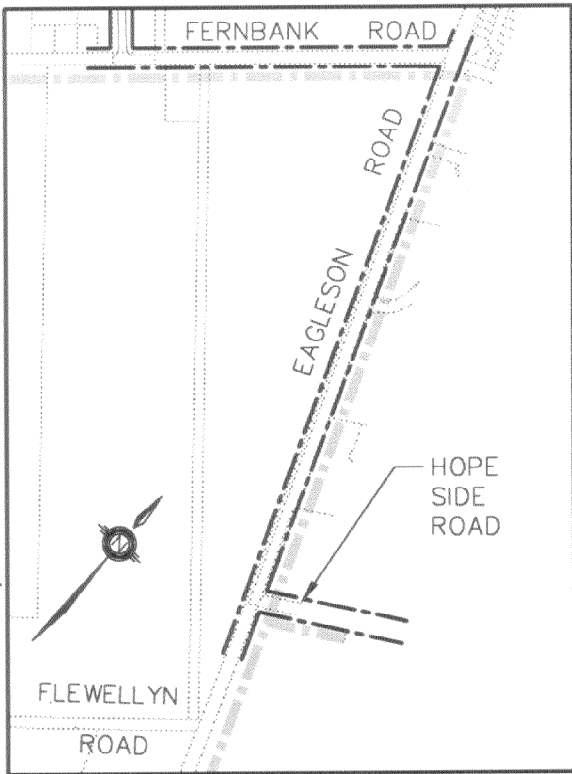
Fernbank Road to Hazeldean Road

An alignment for this section of Terry Fox Drive has been identified and approved through a previous Environmental Assessment (EA) prepared by the City of Kanata. No alignment alternatives were considered for this section of Terry Fox Drive and the existing ROW can accommodate the required widening to four lanes. Minor changes are recommended to the previously approved cross-section to accommodate bicycle lanes and sidewalks. The estimated cost for Section 2 is \$8.5 million (1999\$).

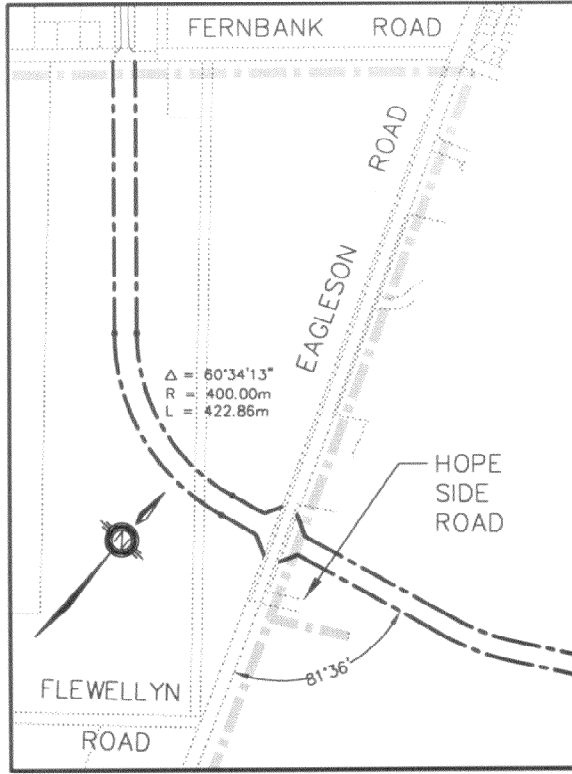
Section 3

Hazeldean Road to Campeau Drive

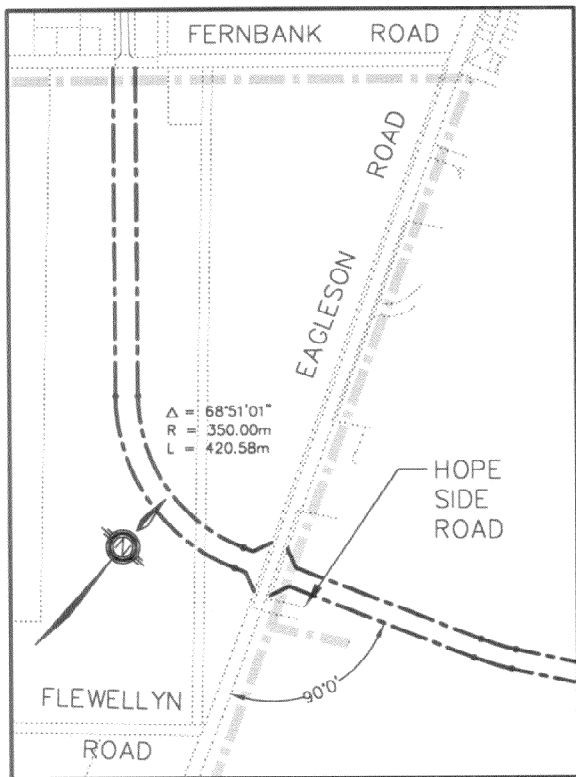
This is an existing section of Terry Fox Drive and widening will be required in some locations. A four lane arterial road with a divided urban cross-section is required for Terry Fox Drive through Section 3. North of Palladium Drive, through the Highway 417 interchange and the Kanata Centrum lands, additional auxiliary lanes will be required to accommodate turning movements.



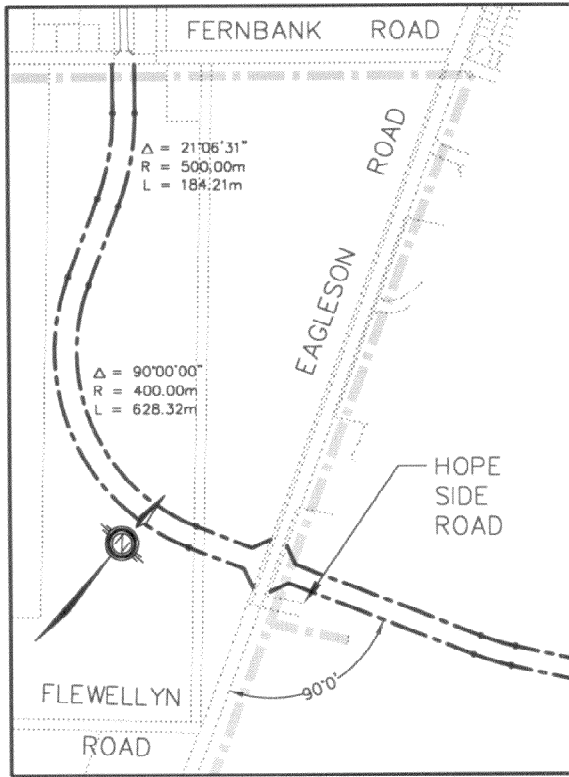
ALTERNATIVE 1-1



ALTERNATIVE 1-2



ALTERNATIVE 1-3



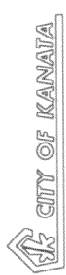
ALTERNATIVE 1-4

SCALE: 1:5000
DATE: OCT. 1999

TERRY FOX DRIVE
EAGLESON ROAD TO MARCH ROAD
ENVIRONMENTAL STUDY REPORT

FIGURE NO. 3

SECTION 1 ALTERNATIVE ALIGNMENTS



The following describes the needed improvements within this section:

- Hazeldean Road to Palladium Drive/ Katimavik Road

One additional lane northbound and one additional lane southbound are required to meet the 2021 needs. To avoid impact to the residential and commercial uses on the east side, the widening will occur to the west of the existing roadway on the unused portion of the already acquired 40m ROW.
- Palladium Drive/ Katimavik Road to Earl Grey Drive

A review of the bridge structure indicated that the existing bridge cannot be widened. Future capacity will be provided by twinning the existing structure or building a new multilane structure. Modifications to the structure and the interchange will be the responsibility of MTO.
- Earl Grey Drive to Campeau Drive

No widening will be required, as Terry Fox Drive already has two (2) northbound and two (2) southbound lanes at this point. Turning lanes will be required at the Campeau Drive and Earl Grey Drive intersections.

The cost of the modifications to Section 3 will be \$3.3 million (1999\$). This cost does not include the required modifications to the Highway 417 interchange and its ramps, which are considered to be the responsibility of MTO.

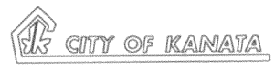
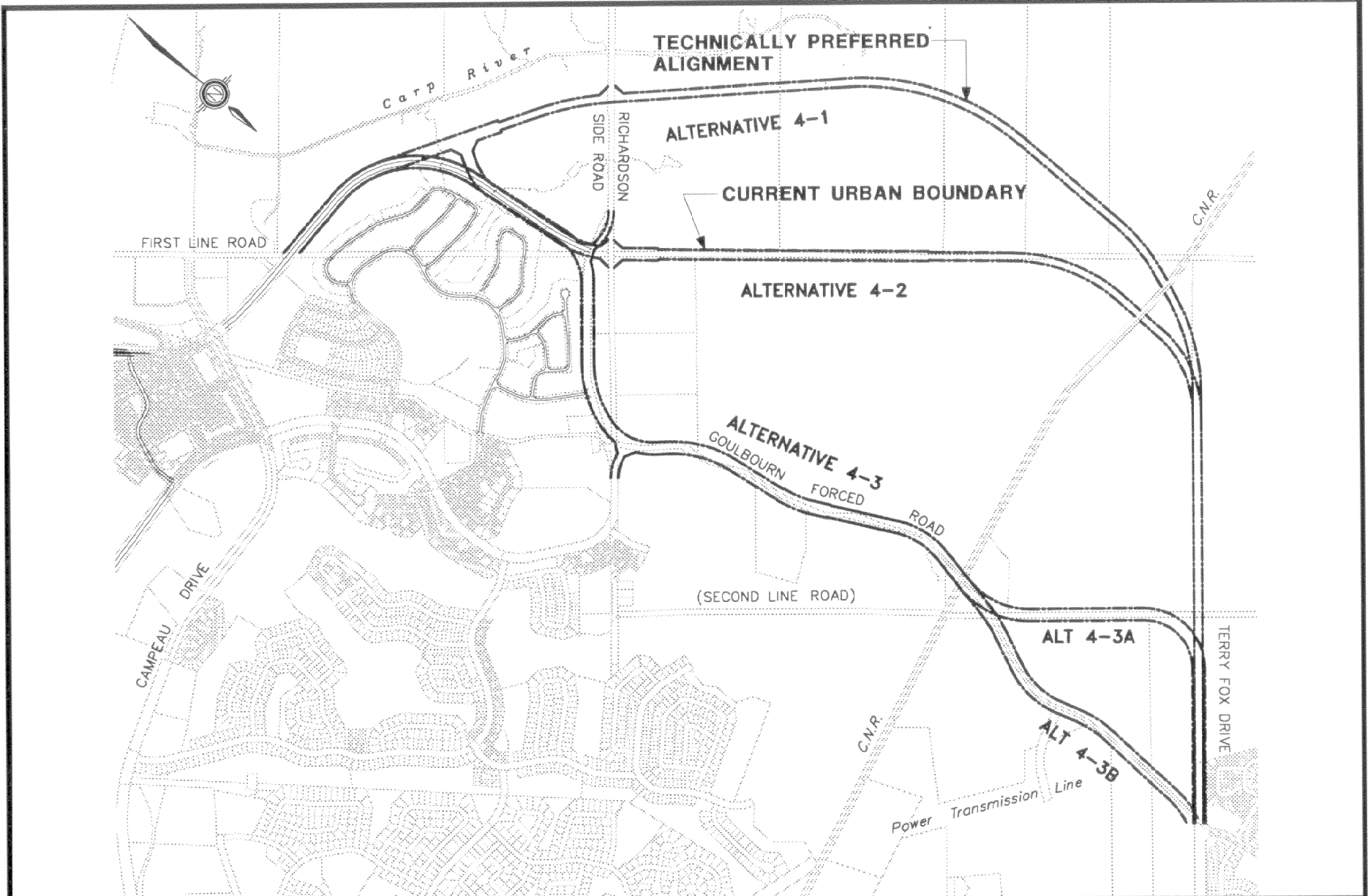
Section 4

Campeau Drive to Goulbourn Forced Road

This section of the corridor was the most critical section for identifying and evaluating alignment alternatives, considering the nature of the terrain, environmentally sensitive features and land use planning considerations. All the alternatives considered have an impact on woodlands associated with the South March Highlands. Therefore, mitigation and protection of the remaining woodlands and wetlands must be a priority during the detailed design and construction of the recommended alternative. The alignment alternatives for Section 4, including the recommended alignment, are illustrated in Figure 4. Alternative 4-1 parallels the Carp River Flood Plain, Alternative 4-2 for the most part traces the First Line Road alignment, and Alternative 4-3 (with its minor variations 4-3A and 4-3B) lies closest to the existing Goulbourn Forced Road alignment.

The alternatives were evaluated using the "pair-wise" comparison method, which enabled the transparent comparison of Alternative 4-1 and Alternative 4-2, first, and Alternative 4-1 and Alternatives 4-3 A/B later. Alternative 4-1 was identified as the preferred alternative, and is recommended for the following reasons:

- minimizing community impacts by avoiding an arterial barrier through the future Marchwood/ Lakeside community (as would be the case with Alternatives 4-3 A/B);
- minimizing the impact of the roadway on the Natural Environment Area (NEA) 'A' at the Shirley's Brook crossing;
- minimizing the impact of the significant slope on Richardson Side Road;
- avoiding, where possible, the NEA areas, significant vegetation and uneven terrain;
- minimizing costs (\$13.5M for Alternative 4-1, compared to \$17.3M for Alternative 4-2 and \$16.2M-\$17.1M for Alternative 4-3 A/B) and
- maximizing transportation service, including potential for future capacity expansion beyond the horizon of the current ROP.



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 EAGLESON ROAD TO MARCH ROAD
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SECTION 4 ALTERNATIVE ALIGNMENTS

SCALE:
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DATE:
 OCT. 1999

FIGURE NO. 4

Section 4 includes a four lane road with a divided urban cross-section between Campeau Drive and the intersection with Richardson Side Road; and a two lane rural road between Richardson Side Road and Goulbourn Forced Road. The recommended alignment for Section 4 of Terry Fox Drive also addresses modifications to the existing alignment for Richardson Side Road.

An Environmental Management Plan will be prepared at the detailed design stage for Section 4, as described in the Shirley's Brook/Watts Creek Subwatershed, to ensure the roadway is sensitively designed with the natural environment. The Plan will provide detailed mitigation, enhancement and monitoring requirements consistent with the recommendations of the subwatershed study and relevant policies of the Official Plan. The execution of the mitigation and enhancement measures could be funded from the potential cost savings associated with the recommended alignment.

It should be noted that the recommended alignment (Alternative 4-1) lies to the west of the current approximate westerly urban boundary shown in the Regional and Kanata Official Plans, which somewhat corresponds to the First Line Road alignment or Alternative 4-2. The land area between the two alignment alternatives is 115 ha, with the following breakdown:

- 17 ha south of Richardson Side Road, designated Agriculture Resource Area in the Regional Official Plan;
- 98 ha north of Richardson Side Road designated NEA(B) in the Regional Official Plan;

Both designations would remain until such time as the Regional Official Plan is amended to re-designate all or a portion of the area. Required studies would determine how much of the NEA (B) land would be re-designated as NEA(A), consistent with the existing designation to the east of the approximate urban boundary.

Access to Terry Fox Drive through Section 4 will be limited, in keeping with Regional policies for arterial roads. Local road connections to Terry Fox Drive will be in keeping with the City of Kanata's planned road network for Marchwood/Lakeside.

The estimated cost of the recommended alignment option is \$13.5 million (1999\$).

Section 5

Goulbourn Forced Road to March Road

This is an existing section of Terry Fox Drive where a widening will be required. A four lane divided urban arterial road will be constructed by widening Terry Fox Drive to the south, maintaining the alignment of the recent reconstruction of the Terry Fox Drive/March Road intersection. The widening of Section 5 of Terry Fox Drive will be accomplished within the already acquired 40m road ROW. The estimated cost of the widening of Section 5 is \$1.8 million (1999\$).

NEXT STEPS

Following the approval of the Terry Fox Drive Alignment by Regional Council, the Environmental Study Report (ESR) will be completed and filed for the mandatory 30 day review period. The approval of the recommended alignment will require a Regional Official Plan Amendment which will be initiated following the approval of the ESR.

PUBLIC CONSULTATION

A proactive and flexible approach to public and agency consultation was adopted during the EA process in keeping with the needs/interests of stakeholders . The public consultation included two Public Open Houses (February 25, 1998 and June 16, 1999), a Criteria Workshop (held on May 7th, 1998) to obtain input on the evaluation approach, criteria and relative importance of criteria for evaluating alternative alignments. Technical Advisory Committee meetings, and circulation of materials to interest groups and review agencies was carried out throughout the study.

The Terry Fox Drive EA was co-ordinated with the study processes and public consultation activities for the Kanata Official Plan Review, the Kanata North Expansion Area Study, the Shirley's Brook/Watts Creek Subwatershed Study, and the Castelfrank Road Overpass/Interchange EA Study, all of which ran concurrently with all or portions of the Terry Fox Drive EA Study.

Favourable comments regarding this project have been received during public consultation, both from area stakeholders and the residents of Kanata.

CONFORMITY TO OFFICIAL PLAN AND TRANSPORTATION MASTER PLAN

Terry Fox Drive has been identified in the Transportation Master Plan and Regional Official Plan as a very important part of the transportation infrastructure necessary to service the City of Kanata. A ROPA will be required to reflect the recommended alignment which differs from the very general alignment designated in the ROP.

COMMENTS FROM REGIONAL CYCLING ADVISORY GROUP (RCAG)

RCAG was consulted and are in agreement with the alignment recommendation.

FINANCIAL COMMITMENT

The RDC Bylaw has reflected the Regional cost of constructing Terry Fox Drive by 2021.

Construction of Terry Fox Drive will proceed in pace with development demands. To date the initial two lanes of Terry Fox Drive has been the responsibility of the City of Kanata. There are no current Regional plans to extend Terry Fox Drive north of Campeau Drive or south of Michael Cowpland Drive within the next 10 years and consequently there is no immediate financial commitment requested at this time.

*Approved by
N. Tunnacliffe, MCIP, RPP.*

BR/jg