



**STAFF REPORT
ACTION REQUIRED**

Yonge Street / Highway 401 Improvements Update

Date:	October 26, 2015
To:	Public Works and Infrastructure Committee
From:	General Manager, Transportation Services
Wards:	Ward 16 (Eglinton-Lawrence) Ward 23 (Willowdale) Ward 25 (Don Valley West)
Reference Number:	P:\2015\ClusterB\TRA\TIM\pw15011tim.docx

SUMMARY

The Yonge Street/Highway 401 interchange is a major transportation junction accommodating regional traffic along the east/west Highway 401 corridor. It serves the City of Toronto along Yonge Street, both north and south and is an interchange that has been experiencing significant congestion and delays. This report advises on the status of the City’s assessment of potential improvements to the Yonge Street/Highway 401 interchange.

Under the Growth Plan for the Greater Golden Horseshoe (Growth Plan), the North York Centre is designated as a Major Growth Centre. The *Places to Grow Act, 2006* includes a framework that requires the City to accommodate growth in the North York Centre and population forecasts anticipate significant numbers of new residents and employees by 2031. Metrolinx’s Regional Transportation Plan, the Big Move, recognizes the North York Centre as an Anchor Mobility Hub, which has strategic importance given its relationship to a Major Growth Centre.

To accommodate the build out of the North York Centre, the Growth Plan requires that the infrastructure needed to support these growth forecasts be identified and implemented by the City. Provincial priority will be given to infrastructure investments made by the Province that support the policies and schedules in the Growth Plan.

In partnership with the Ontario Ministry of Transportation (MTO), the Transportation Services Division initiated a Feasibility Study to assess potential infrastructure improvements at pthe Yonge Street/Highway 401 interchange. Should the study

demonstrate the feasibility of improvements, an Environmental Assessment would be needed to examine the alternatives in greater detail.

RECOMMENDATIONS

The General Manager, Transportation Services, recommends that:

1. The Public Works and Infrastructure Committee receive this report for information.

Financial Impact

There is no immediate financial impact resulting from adopting the recommendation in this report.

Preliminary estimates for this project are included in the 2015 Capital Budget and 2016-2024 Capital Plan for Transportation Services (\$25 million – including expected provincial funding of 50%). These preliminary project costs will need to be refined pending a final decision on the alternative.

Funding for the Environmental Assessment Study, should it proceed, is included in the 2015 Capital Budget for Transportation Services (Engineering Studies CTP815-02).

The Deputy City Manager & Chief Financial Officer has reviewed this report and agrees with the financial impact statement.

DECISION HISTORY

At its meeting of September 22, 2015, the Public Works and Infrastructure Committee requested the General Manager, Transportation Services to report to its meeting on November 12, 2015, advising on the status of the improvements to the Yonge Street/Highway 401 interchange and detailing the reasons for the delays in moving this project forward.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2015.PW7.22>

ISSUE BACKGROUND

The Yonge Street Traffic Management Study (2009) identified four major problems or constraints in the area: operational/ capacity restraints, missing pedestrian paths/ cycle routes, collision trends, and existing transportation network capability to accommodate projected traffic that will be generated from approved, planned, and proposed developments.

At the Yonge Street/Lord Seaton Road intersection, the delays and congestion attributed to the southbound left turn have been highlighted by users, staff, and Council as being

undesirable. The spillback can extend as far north as Avondale Avenue during peak periods, affecting through traffic capacity on Yonge Street and placing constraints on westbound left-turning traffic existing the westbound Highway 401 off-ramp.

To address these concerns, the concept of replacing the southbound left turn lane with a new direct ramp from southbound Yonge Street to eastbound Highway 401 was recommended in the Yonge Street Traffic Management Study. The functionality of this concept was further tested through a Functional Planning Study (2013) which identified seven alternative improvements to the interchange that required further assessment.

A Feasibility Study is currently being carried out by the City and MTO to address the recommendations of the Functional Planning Study. The Feasibility Study was scheduled for completion in June of 2015 but has been delayed as a result of concerns raised by the MTO with the study recommendations.

Feasibility Study

The Feasibility Study is the second joint study carried out by the City and MTO, both of which have been co-funded. The first study (a Functional Planning Study), which was completed in 2013, recommended that a number of physical infrastructure changes be studied in greater detail. As part of its commitment to participate in this subsequent study, the MTO requested that additional investigations be completed through a Feasibility Study before a decision was made to carry out an Environmental Assessment (EA).

As part of the Feasibility Study, six alternatives that are physically feasible and operationally capable of improving traffic operations at the interchange have been identified (See Attachment 1). The alternative improvements developed also gave consideration to new and/or improved cycling connections and pedestrian crossing opportunities.

At this stage of the study, Ministry staff have raised a number of concerns with the alternatives. While each of the alternatives is capable of improving traffic operations on Yonge Street, especially the southbound left-turn from Yonge Street to Lord Seaton Drive, Ministry staff are concerned that increased traffic volumes will result in a reduction in collector lane speeds and increased delays to eastbound traffic in the Highway 401 collector lanes.

In addition, a number of the alternatives pose constructability concerns for Ministry staff. Construction of either a flyover above Highway 401 or a tunnel beneath would involve lane closures and traffic delays for multiple years. A more detailed assessment would be required to better understand how the impact of constructing these alternatives on the operations of Highway 401 could be managed.

Next Steps

The Transportation Services Division has requested the MTO to provide a position about the results of the Feasibility Study. MTO's concurrence with the Feasibility Study recommendations is significant because all of the alternatives developed involve physical and operational changes that are within the limits of MTO's jurisdiction. Whether MTO participates in or agrees to fund the subsequent EA, MTO's approval is required in order to implement any physical or operational changes that are proposed within its jurisdiction. Once a response from MTO has been received, a decision about whether to proceed with an EA will be made.

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ATTACHMENTS

Attachment 1: Feasibility Study Alternatives

Feasibility Study Alternatives

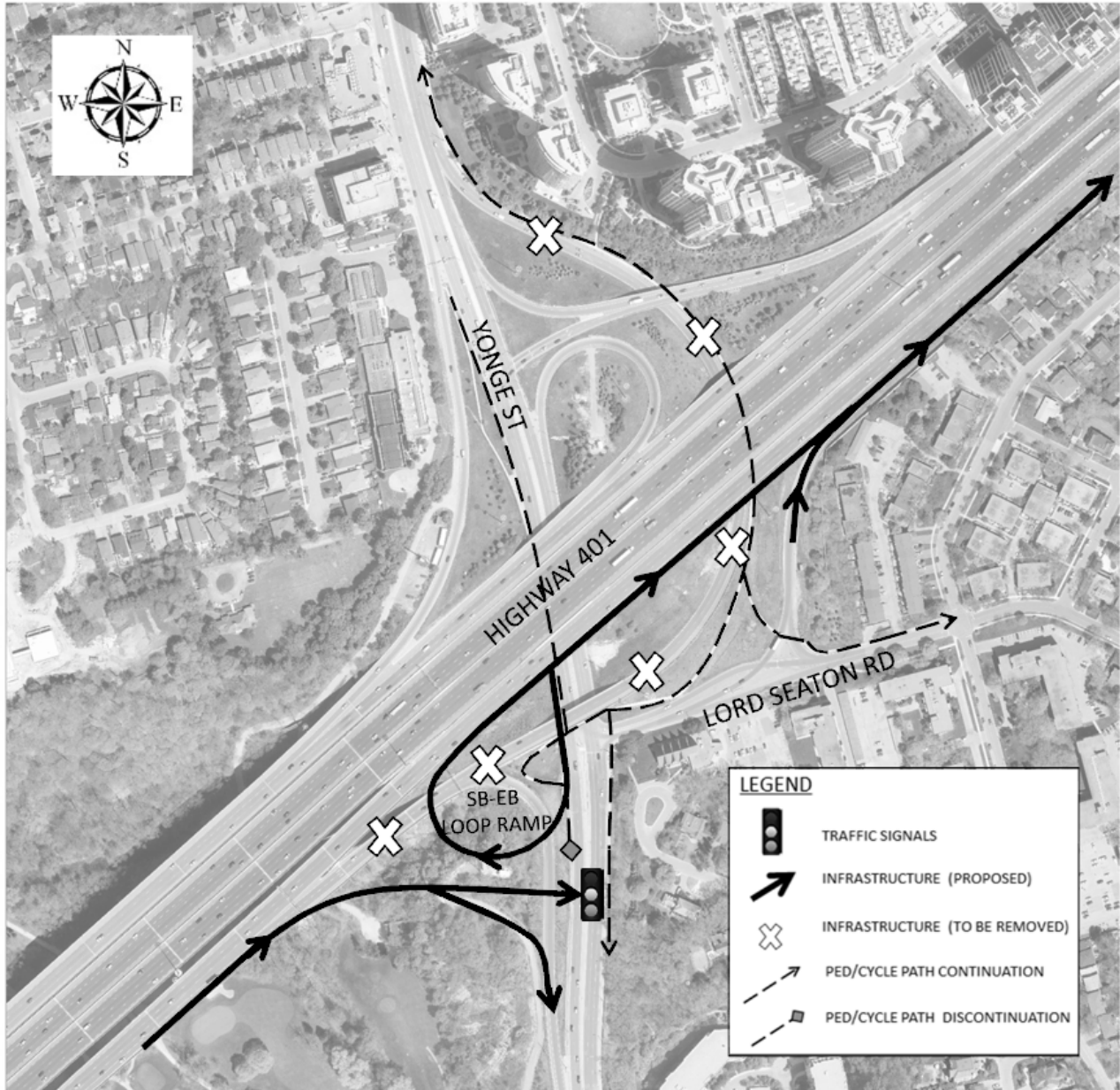
Alternative 1

- New SB double left-turn lane at the intersection of Yonge Street and Lord Seaton (one of the left turn lanes will measure +/- 25m)
- Provides sufficient capacity to alleviate SB congestion in the short term



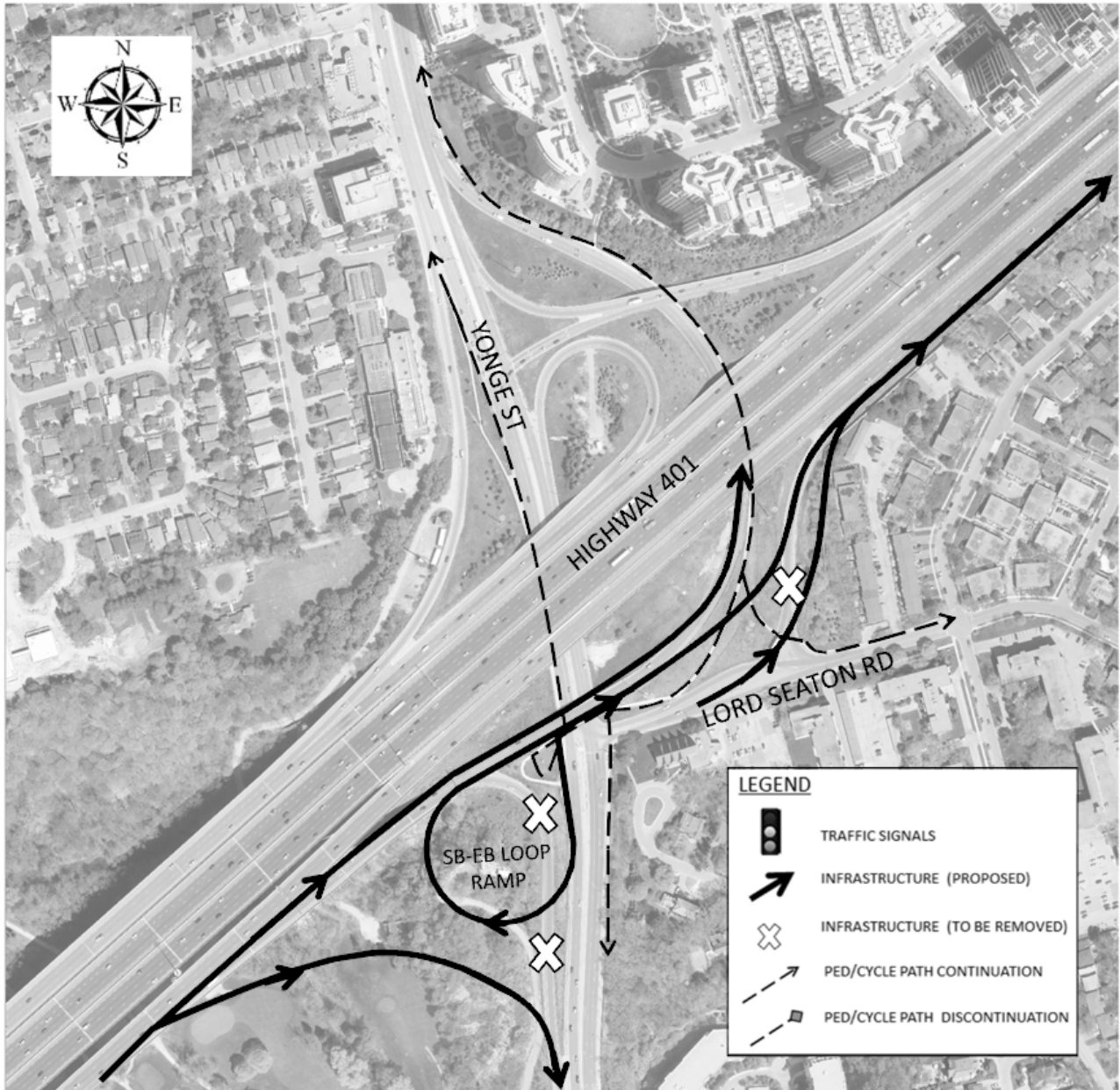
Alternative 2

- New SB to EB on-ramp (new loop in the SW quadrant of the interchange)
- New EB off-ramp (SW quadrant of the interchange) to normalized intersection signal
- Removal of access to the Hwy 401 EB off-ramp to NB Yonge Street beneath Hwy 401



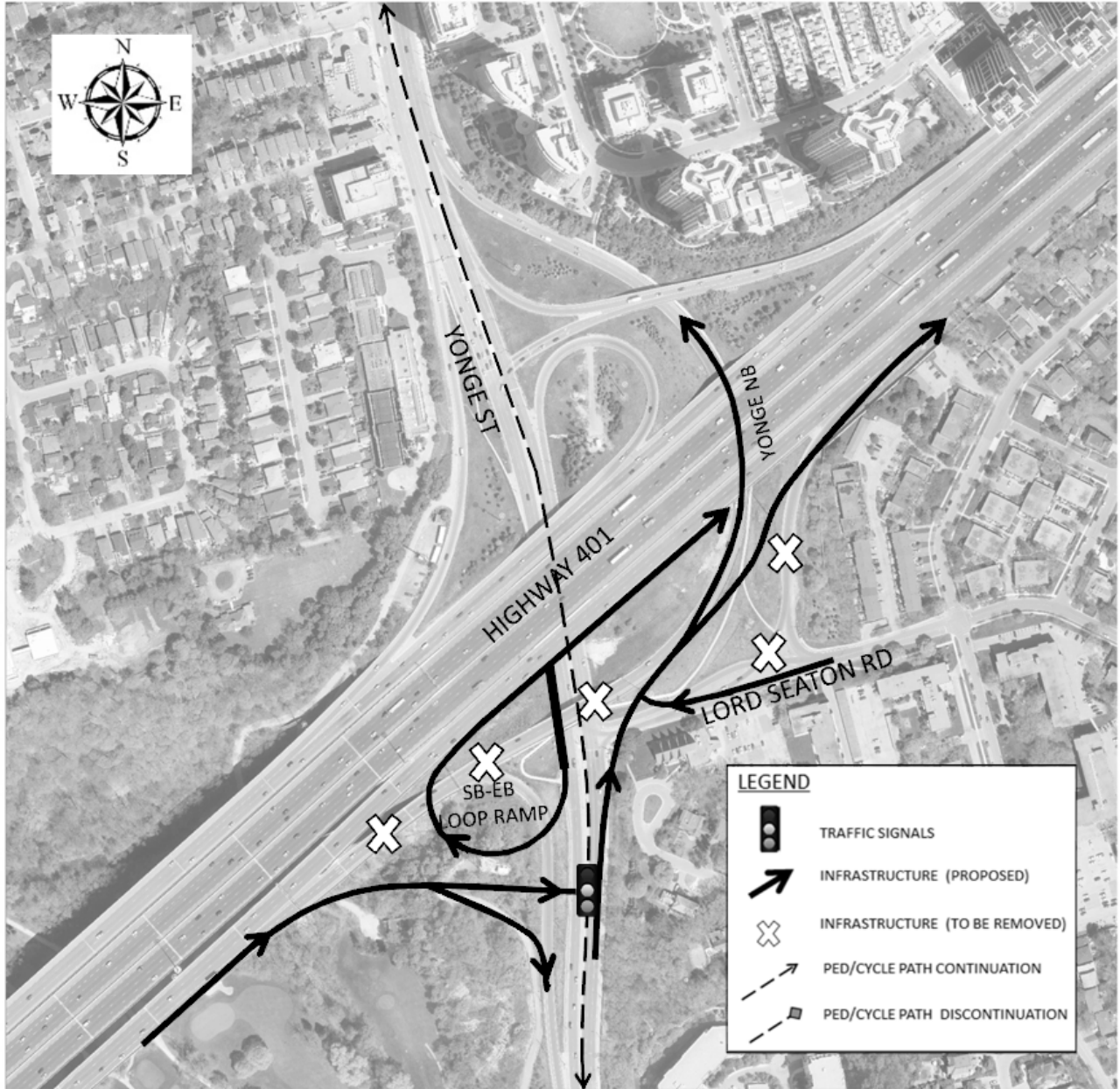
Alternative 3

- New SB to EB on ramp (new loop in the SW quadrant of the interchange)
- Replace EB off-ramp (SW quadrant of the interchange) by moving it south to accommodate loop ramp with same access to SB Yonge and NB Yonge Street via the existing tunnel beneath Hwy 401 on the east side of the underpass
- Reconfiguration of the EB on ramp from Lord Seaton Road



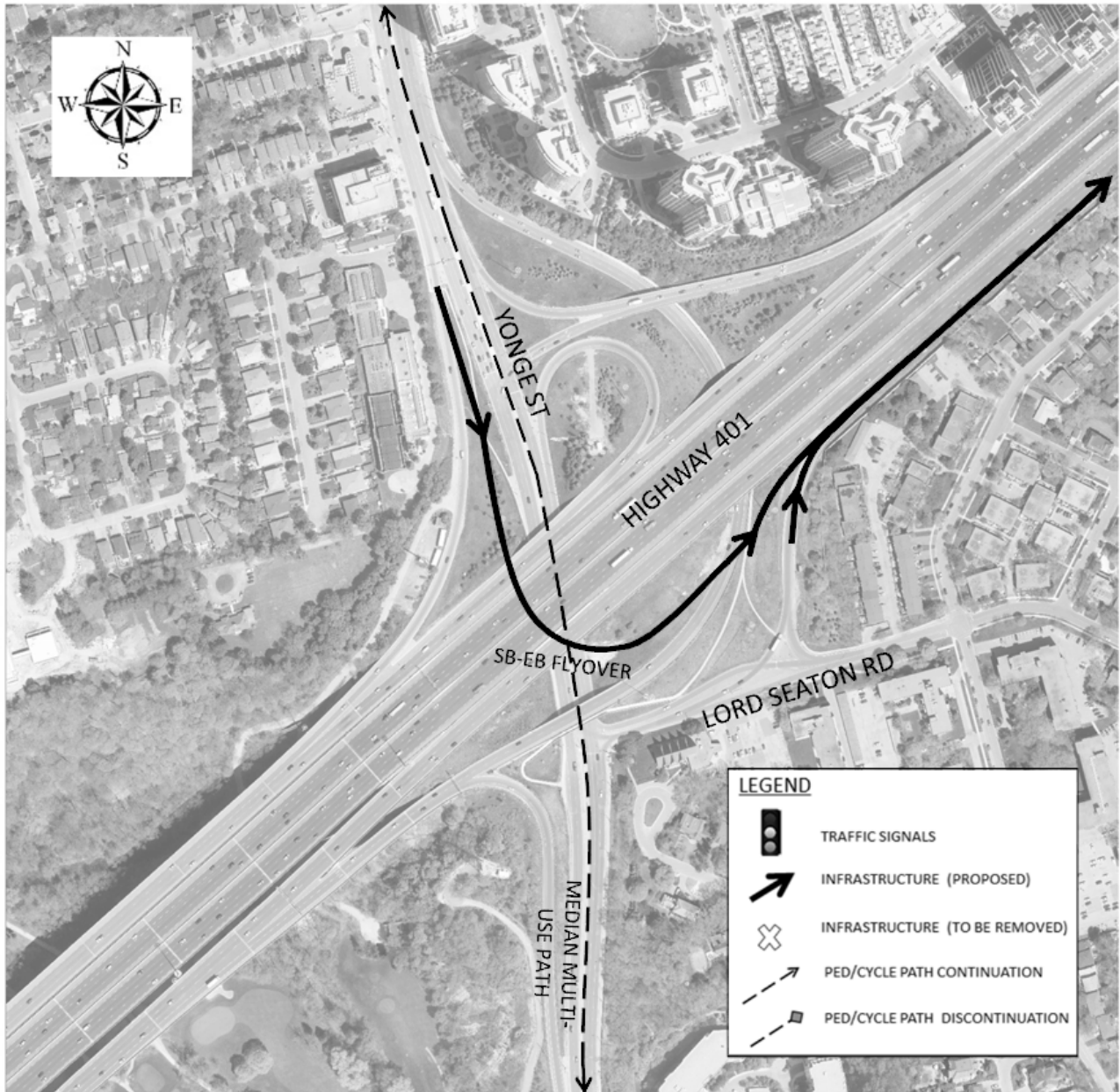
Alternative 4

- New SB to EB on ramp (new loop in the SW quadrant of the interchange)
- Diversion of NB Yonge Street traffic into the existing NB tunnel located on the east side of the underpass
- New EB off-ramp (SW quadrant of the interchange) with access to Yonge Street through a normalized intersection signal
- Reconfiguration of the EB on-ramp from Lord Seaton Road



Alternative 5

- New EB on-ramp (SB Yonge Street to EB Hwy 401) via a fly-over on the west side of the underpass



Alternative 6

- New SB Yonge Street tunnel (west of the underpass) which opens up space for dual 280 m SB double left-turn lanes to be located in existing SB Yonge Street underpass.
- The new SB tunnel would accommodate the SB through movements on Yonge Street.

