

Traffic Control Signal: Keele Street and Four Winds Drive

Date: May 16, 2017

To: City Council

From: Acting Director, Transportation Service Division, North York District

Wards: Ward 8 - York West

SUMMARY

As the Toronto Transit Commission (TTC) operates a transit service on Keele Street, City Council approval of this report is required.

Transportation Services is requesting approval for the installation of traffic control signals and accompanying traffic regulations at the intersection of Keele Street and Four Winds Drive.

The west leg of the former Tangiers Road and York University Busway will be converted to provide public access to the new commuter parking facility. Therefore the previous by-laws prohibiting public access to the west leg of this intersection must be rescinded.

The installation of traffic control signals is technically justified and will enhance safety for pedestrians, cyclists and motorists crossing Keele Street, and transit operations at Finch West Subway Station. In addition, a recommendation is required to designate the southbound left-turn lane from Tangiers Road to the York University busway as a bus-only lane.

Keele Street is a major arterial roadway and the section between Finch Avenue West and Steeles Avenue West is not appropriate for on-street parking. The new northbound bus lane access to Four Winds Drive should be protected with a "No Stopping Anytime" regulation.

RECOMMENDATIONS

The Acting Director, Transportation Services, North York District recommends that:

1. City Council authorize the installation of traffic control signals at the intersection of Keele Street and Four Winds Drive.
2. City Council prohibit northbound right and southbound left turns from Keele Street to Four Winds Drive at all times, "Public Transit Vehicles" excepted.

3. City Council designate the southbound left-turn lane on Keele Street for "Public Transit Vehicles" only, at all times, from Four Winds Drive to a point 46 metres north.
4. City Council designate the northbound curb lane on Keele Street for "Public Transit Vehicles" only, at all times, from Finch Avenue West to Four Winds Drive.
5. City Council prohibit parking at all times on the west side of Keele Street between Finch Avenue West and Steeles Avenue West.
6. City Council prohibit parking at all times on the east side of Keele Street between Four Winds Drive and Steeles Avenue West.
7. City Council prohibit stopping at all times on the east side of Keele Street between Finch Avenue and Four Winds Drive.
8. City Council rescind the northbound and southbound left and right turns at all times prohibition from Tangiers Road to the York University Busway, "Public Transit Vehicles" excepted.
9. City Council rescind the westbound and eastbound entry prohibition, "Public Transit Vehicles" excepted, at all times, from Tangiers Road to the York University Busway.
10. City Council prohibit northbound right and southbound left turns at all times from Tangiers Road to the York University Busway, "Public Transit Vehicles" excepted.
11. City Council prohibit eastbound entry, "Public Transit Vehicles" excepted, at all times, from Tangiers Road to the York University Busway.
12. City Council designate the southbound left-turn lane on Tangiers Road for "Public Transit Vehicles" only, at all times, from the York University Busway to a point approximately 42 metres north thereof.

FINANCIAL IMPACT

All costs associated with the implementation of the new traffic control signal and associated traffic by-laws contained in this report will be borne by the Toronto Transit Commission-Toronto York Spadina Subway Extension Department (TTC-TYSSE).

DECISION HISTORY

At its meeting on August 25, 2010, City Council approved road alternation by-laws to facilitate access to the new Finch West Subway Station as part of the Toronto-York Spadina Subway Extension Project. Council Link:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2010.NY36.32>

COMMENTS

Keele Street is designated as a four-lane north/south major arterial road with a posted speed limit of 60 km/h. Four Winds Drive is a two-lane east/west local road with a posted speed limit of 40 km/h. The intersection of Keele Street and Four Winds Drive previously formed a "T" intersection. It now is a four-legged intersection.

The nearest traffic control signal to this intersection is located approximately 240 metres south at Keele Street and Finch Avenue West.

Finch West Subway Station is located on the east side of Keele Street from Finch Avenue West north to Four Winds Drive. As part of the TYSSE project, Four Winds Drive has been extended eastward from Keele Street to Tangiers Road. The westbound approach (east side) of the intersection is a bus-only road that provides transit access to and from the new Finch West Station Bus Terminal. In order to accommodate the proposed traffic operations at the new station, several geometric modifications have been adopted into the project:

- Widening of Keele Street between Finch Avenue West and Four Winds Drive to accommodate a northbound 'Transit Vehicle' only curb lane for access into the Station.
- Installation of a southbound left-turn lane for transit vehicles only

The TTC-TYSSE project staff have indicated that under the future background traffic condition the intersection of Keele Street and Four Winds Drive will warrant traffic control signals. The technical requirements for the installation of traffic control signals are satisfied to the following extent:

Table 1 - Summary of Traffic Control Signal Warrant Analysis

| Warrant | | Compliance |
|-----------|------------------------|------------|
| Warrant 1 | Minimum Vehicle Volume | 37% |
| Warrant 2 | Delay to Cross Traffic | 100% |

To justify the installation of traffic control signals, one of either the Minimum Vehicular Volume or Delay to Cross Traffic warrants must be 100 per cent satisfied, or both must be satisfied to the extent of 80 per cent.

Staff have reviewed TTC's Traffic Impact Study and have deemed the installation of the traffic control signals appropriate.

The west leg of the Tangiers Road at York University Busway is being converted into the public access to the new commuter parking lot. Therefore previous by-laws prohibiting public use of that section of road must be rescinded. In addition, parking on a major road such as Keele Street, between Finch Avenue and Steeles Avenue should not be permitted.

The Ward Councillor has been advised of the recommendation of this staff report.

CONTACT

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SIGNATURE

Peter K. Hillier
Acting Director

ATTACHMENTS

Attachment 1: Map - Traffic Control Signals: Keele Street and Four Winds Drive
Attachment 2: Map - Turn Prohibitions: Tangiers Road and York University Busway