

Turn Prohibitions - Kingston Road at Orchard Park Drive and Kingston Road at West Hill Drive

Date: August 22, 2023

To: Scarborough Community Council

From: Director, Traffic Management, Transportation Services

Wards: Ward 25, Scarborough-Rouge Park

SUMMARY

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

Transportation Services is recommending the prohibition of westbound left-turns, between the hours of 7:00 a.m. to 9:00 a.m., Monday to Friday, from Kingston Road to Orchard Park Drive and to West Hill Drive. The proposed turn prohibitions will address cut-through traffic and pedestrian safety concerns on Orchard Park Drive and West Hill Drive during the morning peak hours. However, these changes may direct traffic to adjacent residential streets, including Manse Road and Collinsgrove Road, and may also cause confusion for motorists due to the presence of dedicated left turn lanes where the left turn movements will be prohibited.

RECOMMENDATIONS

The Director, Traffic Management, Transportation Services recommends that:

1. City Council prohibit westbound left turns, from 7:00 a.m. to 9:00 a.m., Monday to Friday, on Kingston Road at Orchard Park Drive.
2. City Council prohibit westbound left turns, from 7:00 a.m. to 9:00 a.m., Monday to Friday, on Kingston Road at West Hill Drive.

FINANCIAL IMPACT

The estimated cost of installing the signs is \$1,600.00. Funding is available within the Transportation Services 2022 Operating Budget.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

On a petitioned request from the residents on Orchard Park Drive and West Hill Drive, Transportation Services was directed by the Ward Councillor to investigate the feasibility of prohibiting westbound left turns from Kingston Road onto Orchard Park Drive and onto West Hill Drive during the morning peak period. The intention of the requested prohibitions is to address concerns of southbound cut-through traffic.

Existing Conditions

Kingston Road is characterized by the following conditions:

- The subject segment is a two-lane east-west major arterial roadway
- It operates two-way traffic on a pavement width of approximately 27.5 metres
- The roadway width is divided between three eastbound lanes, three westbound lanes and a center median/left turn lane
- The daily two-way traffic volume is about 30,000 vehicles
- The speed limit is 60 km/h
- Heavy trucks are permitted at all times
- There are sidewalks located on both sides of the street
- TTC service is provided by the 86 Scarborough bus and the 986 Scarborough Express bus

Orchard Park Drive is characterized by the following conditions:

- The subject segment is a two-lane north-south local roadway
- It operates two-way traffic on a pavement width of approximately 8.5 metres
- The daily two-way traffic volume is about 1,400 vehicles
- The speed limit is 50 km/h
- Heavy trucks are prohibited at all times
- There are no sidewalks located on either side of the street

West Hill Drive is characterized by the following conditions:

- The subject segment is a two-lane north-south local roadway
- It operates two-way traffic on a pavement width of approximately 7.3 metres
- The daily two-way traffic volume is about 1,000 vehicles
- The speed limit is 40 km/h
- Heavy trucks are prohibited at all times
- There are no sidewalks located on either side of the street

Both Orchard Park Drive and West Hill Drive have stop controls at Kingston Road, while Kingston Road has a free flow operation at these intersections. There are currently no turn prohibitions in effect and dedicated westbound left-turn lanes are provided at both intersections through gaps in the centre median.

A map of the area is included in Attachment 1.

Proposed Turn Prohibitions

Both Orchard Park Drive and West Hill Drive provide access between Kingston Road and Lawrence Avenue East. Existing congestion on Kingston Road delays westbound motorists intending to access Lawrence Avenue directly from Kingston Road during the morning peak period. In order to by-pass this congestion, some westbound motorists were reported using local roads, specifically Orchard Park Drive and West Hill Drive.

A review of the westbound left turning traffic from Kingston Road onto Orchard Park Drive and onto West Hill Drive yielded concerns for the volume of vehicles conducting these movements during the morning peak period. The volumes of vehicles particularly raise concerns for the safety of pedestrians on Orchard Park Drive and West Hill Drive as there are no sidewalks on either roadway, with pedestrians walking at the side of the street in mixed traffic.

In order to assess the impacts of the requested westbound left turn prohibitions, the collision history, volume of motorists and the geometry of the subject intersections were examined.

Collision Review

A collision history provided by the Toronto Police Service for the three-year period ending March 31, 2023 disclosed that two reported collisions occurred on Kingston Road at Orchard Park Drive and three reported collisions occurred on Kingston Road at West Hill Drive. Further review of these collisions noted that none involved a westbound left turning motorist prohibition.

Volume Analysis

Turning movement counts were undertaken for Kingston Road at Orchard Park Drive and at West Hill Drive on March 29, 2023. The westbound left turning volumes during the morning periods are summarized in Table 1.

Table 1: Westbound Left Turn Volumes from Kingston Road to Orchard Park Drive and to West Hill Drive

Time Period	Kingston Road and Orchard Park Drive	Kingston Road and West Hill Drive	Both Intersections
7:00 a.m. to 8:00 a.m.	113	49	162
8:00 a.m. to 9:00 a.m.	210	90	300
Total	323	139	462

As noted, during the morning peak period, 462 motorists were recorded conducting westbound left turns from Kingston Road onto Orchard Park Drive and onto West Hill Drive. When comparing the residential density of the subject segments of Orchard Park Drive and West Hill Drive to the volume of westbound left turning motorists entering these streets, evidence of cut-through traffic appears. The number of households within the segments of Orchard Park Drive and West Hill Drive, between Kingston Road and Lawrence Avenue East, (45 and 31, respectively) is far lower than the number of motorists entering Orchard Park Drive and West Hill Drive via a westbound left turn at Kingston Road.

If westbound left-turn movements are prohibited at Orchard Park Drive and at West Hill Drive, it should be expected that these 462 motorists in the morning peak period may be displaced to adjacent intersections. Some may remain on the arterial roads but given the network of the roadways in this area, it is anticipated that this traffic will also utilize Manse Road and Collingsgrove Road to travel between Kingston Road and Lawrence Avenue East.

Both Manse Road and Collingsgrove Road are collector streets, which are expected to carry higher volumes of traffic than local streets. They have a greater road width and have sidewalks located on both sides. Additionally, the intersection of Manse Road and Kingston Road is signalized. Accordingly, the pedestrian safety concerns resulting from the cut-through traffic can be better managed on these two streets. Residents have also been advised by the Ward Councillor of these upcoming changes.

Other Considerations:

Besides the diversion of traffic to adjacent streets, the installation of morning peak period left turn prohibitions may also result in the following impacts:

- Some potential confusion for motorists as they may interpret mixed messaging between the dedicated westbound left turn lanes and the peak period left turn prohibitions
- Residents of Orchard Park Drive and West Hill Drive, as well as their guests, visitors and tradespeople, are not exempt and will also be subject to the left turn prohibitions and will have to take a more circuitous route
- Potential minor increases in congestion on Kingston Road

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

CONTACT

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SIGNATURE

Roger Browne, M.A.Sc., P. Eng.
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ATTACHMENTS

Attachment 1: Map - Left Turn Prohibition - Kingston Road at Orchard Park Drive and West Hill Drive

