

Committee of the Whole (1) Report

DATE: Tuesday, June 09, 2020

WARD(S): 1

**TITLE: KIPLING AVENUE – KIRBY ROAD TO 500M SOUTH OF
TESTON ROAD SPEED REVIEW**

FROM:

Zoran Postic, Deputy City Manager, Public Works

ACTION: DECISION

Purpose

This report seeks Council approval to implement a speed limit reduction on Kipling Avenue between Kirby Road to approximately 500m south of Teston Road, which reflects changing land use in the surrounding area, supports speed limit consistency and improves overall traffic operations.

Report Highlights

- Staff have received requests from citizens abutting Kipling Avenue to investigate a speed reduction on Kipling Avenue between Kirby Road to Teston Road.
- This section of Kipling Avenue is rural in nature and has a statutory speed limit of 80km/h.
- A speed limit review on Kipling Avenue has been completed using best practices from the Transportation Association of Canada's Guidelines as well as surrounding uses and roadway characteristics.
- A speed limit of 60 km/h on Kipling Avenue between Kirby Road to 500m south of Teston Road is recommended.

Recommendations

1. That Council approve the implementation of a speed limit reduction on Kipling Avenue from Kirby Road to 500m south of Teston Road, from 80km/h to 60 km/h; and
2. That a By-law be enacted to amend Schedule “E” Part 3 of the Traffic By-law 284-94, as amended, to add a speed limit reduction from 80 km/h to 60 km/h on Kipling Avenue from Kirby Road to 500m south of Teston Road; and
3. That a By-law be enacted to amend Schedule “E” Part 3 of the Traffic By-law 284-94, as amended, to add a speed limit of 60 km/h on Teston Road from Pine Valley Drive to Stegman’s Mill Road; and
4. That the City Clerk forward a copy of this report to the York Regional Police and Region of York.

Background

Citizens have raised concerns over observed vehicle speeds on Kipling Avenue and requested a review.

A speed limit review was initiated on Kipling Avenue between Kirby Road to Teston Road as a result of community concerns related to road safety.

Kipling Avenue between Kirby Road to Teston Road is identified as a major collector road and has a two-lane rural cross-section, no sidewalks through this section, and a statutory 80 km/h speed limit (a location map presented in Attachment 1).

Previous Reports/Authority

Traffic By-law 284-94:

[Consolidated Traffic By-Law 284-94](#)

Analysis and Options

A traffic study was conducted on Kipling Avenue to collect both the speed and volume data.

A traffic Study was conducted in September 2019. Speed and volume data were collected using Automatic Traffic Recorders over a full 3-day period on Kipling Avenue between Kirby Road and Teston Road.

The following table summarizes average daily traffic volume, the average speed and the 85th percentile speed (the speed at or below which 85% of all vehicles are travelling) in both northbound and southbound directions.

Table 1: Traffic Volume and Speeds on Kipling Avenue (Teston Road to Pierre Berton Boulevard)

Kipling Avenue (Teston Road and Pierre Berton Boulevard)	Average Daily Traffic Volume	Average Speed (85th Percentile Speed) in km/h
Northbound	459	66 (78)
Southbound	608	72 (84)
Total Volume and Weighted Average	1,067	69 (81)

Table 2: Traffic Volume and Speeds on Kipling Avenue (Pierre Berton Blvd to McMichael Avenue)

Kipling Avenue (Pierre Berton Boulevard and McMichael Avenue)	Average Daily Traffic Volume	Average Speed (85th Percentile Speed) in km/h
Northbound	419	68 (79)
Southbound	363	68 (81)
Total Volume and Weighted Average	782	68 (80)

Kipling Avenue, between Kirby Road and Teston Road is classified as a rural collector roadway. Its function is to facilitate the movement of local traffic to and from the arterial road network. According to the Geometric Design Guide for Canadian Roads, this type of road can accommodate around 5,000 vehicles per day. The recorded traffic volume was well within this capacity.

The average speeds are in the range of 66 km/h to 72 km/h. The 85th percentile speeds range from 79 to 84km/h. The statutory speed limit on the subject road is 80 km/h. As a result, the 85th percentile speed range is at or over the existing limits.

An inventory of speed limits on similar roads was taken for comparison.

Similarly sized rural roads across the City include Kirby Road, Teston Road, Huntington Road, Cold Creek Road and King-Vaughan Road. Table 3 summarizes these roads and speed limits (outlined in attachment 2).

Table 3: Speeds on rural roads in the area

Road	Classification	Speed Limit (km/h)
King-Vaughan Road (west limit to Mill Road)	Minor Arterial	60
King-Vaughan Road (Mill Road to Bathurst Street)	Minor Arterial	80
Kirby Road (Highway 27 to Dufferin Street)	Minor Arterial	60
Huntington Road (Kirby Road to Langstaff Road)	Major Collector	60
Teston Road (Kipling Avenue to Pine Valley Drive)	Major Collector	60
Cold Creek Road (Albion-Vaughan Road to Nashville Road)	Major Collector	60

The comparator roads are all largely rural cross-sections with similar or greater traffic volume. The two Minor Arterial roads identified (King-Vaughan Road and Kirby Road) range from 60 km/h to 80km/h speed limits.

Part of this review included an administrative search of existing speed limit by-laws on the comparator roads. 60 km/h signs are currently installed on Teston Road. Through searches, the bylaw to enact the 60 km/h speed limit on Teston Road from Pine Valley Drive to Stegman's Mill Road could not be located. It should be noted that the speed on Teston Road east of Pine Valley Drive, under the Region of York is posted at 60 km/h. To maintain a consistency of speed limits in the area road network and to ensure that administration records are aligned with the presence of existing signs, enactment of a bylaw to add a 60 km/h speed limit on Teston Road is recommended.

Best Practices and Transportation Association of Canada Guidelines for Establishing Posted Speed Limits were applied to assess the speed limit on Kipling Avenue.

As indicated by recent traffic studies, the 85th Percentile Speed range on Kipling Avenue between Kirby Road and Teston Road is at or above the 80 km/h speed limit.

Generally, speed limits should be set as low as is reasonable to reduce the likelihood of serious injury or death in the event of a collision. Speed limits should also be set for driver compliance. If a speed limit is posted too low for surrounding conditions, compliance will decrease as driving speeds are likely to exceed the speed limit. The

design of the roadway should create conditions that encourage compliance with the posted speed limit.

Changes to land use is also a factor in evaluating speed limits. Urbanization resulting from new development and infrastructure can include changing land use and a resulting change in traffic patterns along the road corridor. When communities are built adjacent to formerly rural roads, operating conditions of these roads must change to reflect increases in volume, intersections, driveway connections, turning movements, pedestrians, cyclists and transit activities.

The promotion of consistency in speed limits and safe transitional speeds are also factors. Speed limits on the same road that change frequently within short distances can result in driver confusion and low compliance with speed limits. Limiting the number of speed zone changes supports driver compliance.

The Transportation Association of Canada (TAC) has produced guidelines to determine the most appropriate speed for roads. The guideline considers many variables such as road geometry, roadside hazards, pedestrian exposure and pavement surface to determine an appropriate speed limit.

A speed limit reduction to 60km/h is recommended on Kipling Avenue based on TAC guidelines, development growth and land use changes in the surrounding area.

The land within Block 55 East in the area of Kipling Avenue and Teston Road is under development to provide a more urban community setting. The proposed speed limit is in line with the changing land use and traffic patterns.

The TAC guideline was applied to assess the speed limit on Kipling Avenue between Kirby Road and Teston Road. The recommended speed limit on Kipling Avenue based on the TAC guideline is 60 km/h.

Based on the technical analysis and development and change in land use in the area, staff recommends a speed limit reduction from 80 km/h to 60 km/h on Kipling Avenue from Kirby Road to Teston Road. Kipling Avenue south of Teston Road dead-ends at approximately 500m. For consistency, the 60 km/h reduction should apply to this 500m section as well.

There are several crests and sags along this section of Kipling Avenue. In cases where the road section varies from the 60km/h speed limits with the crests and sags, staff will implement advisory speed warning signs to advise drivers to proceed at a speed lower than the speed limit, where applicable.

Staff will consult with York Regional Police to develop a communication and enforcement plan for the speed limit change, which could include communication of the speed limit change accompanied by installation of radar message boards prior to any

enforcement action. This plan will assist drivers to adjust to the new reduced speed limit. New Speed limit signs will also be installed.

Financial Impact

The estimated cost associated with the installation of the speed limit signs is \$1100 and is supported in the approved 2020 operating budget. The on-going estimated cost to maintain the signs is \$100 per annum and will be incorporated in future year operating budgets.

Broader Regional Impacts/Considerations

Upon approval of the recommended speed limit reduction, a copy of this report will be forwarded to the York Regional Police for their consideration to develop a communication and enforcement plan. A copy of this report will also be forwarded to the Region of York for their information.

Conclusion

In response to changing land use in the area, and citizens' concerns over observed vehicle speeds, a speed limit review was initiated on Kipling Avenue between Kirby Road and Teston Road.

Analysis of collected data, changes in surrounding area land use, and the differing speed limits of connecting roads, staff recommend a speed limit reduction from 80 km/h to 60 km/h on Kipling Avenue from Kirby Road to 500m south of Teston Road.

For record keeping accuracy, and to maintain consistency with the connecting roads, a bylaw supporting the current 60km/h speed limit signage on Teston Road is also recommended.

For more information, please contact Donald Eta, Director of Transportation and Fleet Management Services ext. 6141 and/or Margie Chung, Manager of Traffic Services, ext. 6173

Attachments

1. Location Map
2. Speeds on rural roads in the area

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