

CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF APRIL 11, 2018

Item 10, Report No. 14, of the Committee of the Whole, which was adopted without amendment by the Council of the City of Vaughan on April 11, 2018.

10 SPEED LIMIT REVIEW ON HUNTINGTON ROAD FROM KIRBY ROAD TO LANGSTAFF ROAD

The Committee of the Whole recommends approval of the recommendation contained in the following report of the Deputy City Manager, Public Works, dated April 4, 2018:

Purpose

This report seeks Council approval to implement the recommended speed limit revisions, which reflect changing land use, promote speed limit consistency and improve overall traffic operations.

Recommendations

1. That the existing speed limit of 80km/h on Huntington Road from Kirby Road to Langstaff Road, be reduced to 60km/h; and
2. That Council 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 Huntington Road from Kirby Road to Langstaff Road; and
3. That the City Clerk forward a copy of this report to the York Regional Police and Region of York.

Report Highlights

- Staff have received requests from residents to investigate a possible speed reduction on Huntington Road from Kirby Road to Nashville Road.
- Huntington Road extends from Kirby Road to Highway 7, with both rural and urban cross-sections and developing uses.
- A proactive and consistent approach to recommending an appropriate speed limit would include analysis of Environmental Assessment reports, surrounding land use and safety considerations.
- A speed limit of 60km/h on Huntington Road from Kirby Road to Langstaff Road is recommended.

Background

A speed limit review was initiated on Huntington Road between Kirby Road and Nashville Road as a result of community concerns related to road safety. This road

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section has a two-lane rural cross-section and a statutory 80 km/h speed limit. There are no sidewalks in this section.

The two-lane rural cross-section continues between Nashville Road to Langstaff Road with a statutory 80 km/h speed limit. Between Langstaff Road and Highway 7, the road widens to a four-lane urban cross-section with a statutory 50 km/h speed limit.

Previous Reports/Authority

Not Applicable.

Analysis and Options

A Traffic Study was conducted on Huntington Road to collect both speed and volume data.

Speed and volume data were collected via Automatic Traffic Recorders in April 2017, over a full 3-day period on Huntington Road between Nashville Road and Kirby Road.

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

Direction	Average Daily Traffic Volume	Average Speed (85th Percentile Speed) in km/h
Northbound	590	68 (80)
Southbound	640	81 (95)
Total Volume and Weighted Average	1,230	75 (88)

Huntington Road between Nashville Road and Kirby Road is classified as a rural major collector roadway and its function is to facilitate local traffic and to move traffic to the arterial road network. According to the Geometric Design Guide for Canadian Roads, this type of road can comfortably accommodate around 5,000 vehicles per day. The recorded traffic volume was well within this capacity.

Speeds are in the range of 68 to 81 km/h for average speeds. The 85th Percentile Speeds range from 80-95 km/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.

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

An inventory of similarly sized rural roads in Vaughan under the municipality's jurisdiction include Kirby Road, Teston Road, Stegman's Mill Road, Cold Creek Road and King-Vaughan Road. The following chart summarizes these roads and speed limits:

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 (Albion-Vaughan Road to Huntington Road)	Minor Arterial	80
Kirby Road (Highway 27 to Dufferin Street)	Minor Arterial	60
Teston Road (Kipling Avenue to Pine Valley Drive)	Major Collector	60
Cold Creek Road (Albion-Vaughan Road to Nashville Road)	Major Collector	60

Note: Speeds are typically 60 km/h or 80 km/h for comparator roads.

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.

Huntington Road is a Major Collector roadway most like Teston Road and Cold Creek Road. The speed limits on these roads are posted at 60 km/h suggesting that the existing 80 km/h speed limit on Huntington Road may be posted too high in comparison to similar roads.

Environmental Assessment Report Findings

The *Class Environmental Assessment for Huntington Road from Langstaff Road to McGillivray Road (Part A) and Major Mackenzie Drive to Nashville Road (Part B)*, concludes that, due to growth in nearby employment lands and residential areas, the existing two-lane rural configuration of Huntington Road will not be able to adequately accommodate future traffic demands. The report assesses the future needs along Huntington Road to develop an appropriate design to address these issues.

Based on the report findings, recommendations were made for an upgrade from a two-lane rural road to a four-lane urbanized road with a multi-use trail and sidewalk for

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Huntington Road between Langstaff Road to Rutherford Road and an upgrade to a two-lane urbanized road with a multi-use trail between Rutherford Road and Nashville Road.

These recommendations for the upgrade of Huntington Road to an urban major collector road in turn support a maximum posted speed limit of 60 km/h.

As part of the planned Highway 427 expansion, a section of Huntington Road north of McGillivray Road and south of the future realigned Major Mackenzie Drive will be removed sometime in Summer 2018 as construction works proceed.

The new configuration of Huntington Road may change with development of Block 61 West. The current plan is for Huntington to be a 2-lane rural roadway south of Nashville Road and end in a cul-de-sac just north of the future realigned Major Mackenzie.

These roadway improvements with increased traffic volume from all road users including vehicles, bicycles and pedestrians serve as a further justification for a proactive speed limit reduction. This proactive speed limit reduction will also be beneficial to the planned discontinuation of Huntington Road.

Best Practices and Transportation Association of Canada Guidelines

As indicated by recent traffic studies, the 85th Percentile Speeds on Huntington Road between Nashville Road and Kirby Road exceed the 80 km/h speed limit.

Generally, speed limits should be set as low as reasonably possible to reduce the likelihood of serious injury or death in the event of a collision. Speed limits should also ideally be self-enforcing. The design of the roadway should create conditions that encourage compliance with the posted speed limit.

One justification for speed limit revision includes changes to land use. Urbanization resulting from new development and infrastructure can include changing land use and 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.

Another justification is the promotion of consistent speed limits. 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 encourages driver compliance.

Kirby Road has an existing 60 km/h speed limit. Huntington Road south of Langstaff

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Road is an urbanized statutory 50 km/h road. A change in speed limit on Huntington Road from Kirby Road to a lower speed limit would promote consistency.

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

The guideline was applied to Huntington Road between Kirby Road and Nashville Road. The resulting recommended speed limit based solely on these guidelines was a reduction to 70 km/h.

These guidelines only consider current geometry and operations and do not account for urbanization and consistency in speed limits along the corridor.

Based on findings and future changes to the area, a speed limit reduction to 60 km/h is recommended.

Speed limits should be set as low as reasonably possible to reduce the likelihood of injury while recognizing that the speed limit should also be self-enforcing and reasonable for existing conditions. If a speed limit is posted too low for surrounding conditions, the driving speeds will exceed the limit. If posted too high, the risk of more serious collisions exists.

A recent Environmental Assessment study of Huntington Road recommended that the maximum posted speed for the proposed urban major collector road design should be 60 km/h.

Speed limits should not only be in line with changing land use and traffic patterns but should also be consistent. Speed limits that change rapidly in relatively short distances can result in driver confusion and low compliance of the posted speed limit.

Based on the technical analysis and environmental assessment findings, staff recommends a consistent speed limit reduction from 80 km/h to 60 km/h on Huntington Road from Kirby Road to Langstaff Road.

Staff will consult with York Regional Police to develop an educational and enforcement program for the speed limit change, which could include warnings of the speed limit change accompanied by installation of the radar message boards prior to any enforcement action. This program will assist drivers to adjust to the new reduced speed limit.

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Relationship to Term of Council Service Excellence Strategy Map (2014-2018)

This report supports the strategic priorities related to the Term of Council Service Excellence Strategy Map (2014-2018), and is consistent with the following Term of Council Priorities:

- Improve municipal network; and
- Continue to ensure the safety and well-being of citizens.

Financial Impact

The cost associated with the installation of the required speed limit signs and posts is estimated to be \$1,250.00 and has been included in the approved 2018 Operating Budget. The on-going cost to maintain the signs is estimated to be \$200.00 per annum and will be incorporated in future year Operating Budgets.

Broader Regional Impacts/Considerations

Communication to York Regional Police for their education/enforcement programs would be required should the speed limit reduction be approved. The Regional Municipality of York would also be included in communication for their information.

Conclusion

Based on the environmental assessment, analysis of the proposed growth in employment and residential areas and the need to implement a speed limit that is both appropriate for surrounding land uses and consistent with connecting roads, staff recommend a speed limit reduction from 80 km/h to 60 km/h on Huntington Road from Kirby Road to Langstaff Road.

The recommendation to reduce the speed limit will also promote consistency as speed limits that change rapidly in relatively short distances can result in driver confusion and low compliance.

A bylaw amendment to the Traffic Bylaw 284-94 will be prepared, which will coincide with the installation of speed limit signs at appropriate locations to inform drivers of the change.

For more information, please contact:

Zoran Postic, Director, Transportation Services Parks and Forestry Operations at or
Margie Chung, Manager of Traffic Engineering

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Attachments

1. Location Map

Prepared by

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(A copy of the attachments referred to in the foregoing have been forwarded to each Member of Council and a copy thereof is also on file in the office of the City Clerk.)