Memo

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To: Mayor and Members of Council
From: Ron Albright, Acting Director, Engineering Services
Date: July 6, 2020
Subject: Darlington Boulevard – Courtice – Potential Traffic Calming Measures
File: CRC.Darlington Blvd.

During the June 22, 2020 General Government Committee meeting, Council passed resolution #GG-242-20 directing staff to report back at the Council Meeting of July 6, 2020 with recommendations for traffic calming and speed reduction measures on Darlington Boulevard in Courtice from Foxhunt Trail to Regional Highway 2 (Hwy. 2) in its existing condition.

Darlington Boulevard is presently a narrow rural road (approx. 5.5 to less than 6.0m width) with gravel shoulders and an existing pavement surface in fair condition. The road is consistently fronted by residential driveway entrances along its entire length with high frequency commercial entrances (LCBO, gas bar/Tim Horton's) immediately south of Hwy 2.

Radar message boards were deployed in Spring 2020 to review speed and volume impacts caused by the development of the commercial properties and local traffic. Speeds were shown to be in compliance with averages in the low to mid-40s and an 85th percentile speed (the speed at which 85% of vehicles travel at or under) of 52km/h. This is a notable decline from the previously undertaken radar message board deployment in Spring 2016 where average speeds were shown to be in compliance with averages in the mid to high-40s and an 85th percentile speed of 56km/h.

It is recognized that, although speeds are generally in compliance, the narrow road corridor and shoulders are of concern to residents and pedestrians along this road as no off-road facility exists for pedestrians. With that in mind, and referencing the 2017 Neighbourhood Traffic Study prepared by Paradigm Transportation Solutions Ltd. for this neighbourhood, staff have reviewed the road corridor for potential traffic calming measures that could be deployed. Should members of Council wish to review the Traffic Study a copy has been provided here.

With the above constraints in mind, staff evaluated the potential temporary traffic calming measures readily available including flexible bollards, speed cushions, bump outs or chokers, medians and speed tables.

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Due to the narrow pavement width and narrow singular lane width, flexible bollards in a typical arrangement of one central wider bollard and two narrower edge of lane bollard markers would significantly constrain the navigable gap for vehicles and is below the recommendations of spacing deployment for motorist comfort and ability. Alternatively, a singular row of frequent centerline bollards may be better suited, however maintaining full movement of residential accesses must be maintained along the road corridor so deployment locations may be limited. Additionally, the location of such a measure must be appropriately placed such that vehicles are not influenced to utilize the road shoulder, that is presently lower than the road surface, and be put in an unsafe condition where the pavement elevation difference makes rejoining the road difficult or causes the vehicle to travel within pedestrian walking routes. As this will be temporary, staff could consider using two to three flexible bollard centre installations with additional measures placed in the shoulder area spaced evenly along the corridor between Foxhunt Trail and the south commercial entrance on Darlington Blvd.

As is recommended in the Traffic Study, the most appropriate traffic calming measure for the existing roadway is the deployment of speed cushions which are less reliant on existing pavement width and are adjustable. Staff recently undertook a temporary speed cushion deployment on Old Scugog Road in Enniskillen as a pilot deployment with success, however, as this was a pilot initiative, most of the speed cushion materials were utilized at this location.

Darlington Boulevard is approximately 600m in length from Foxhunt Trail to the commercial entrances and any traffic calming deployment must be consistent and regular along the road corridor to be effective. Engineering Services presently has limited availability of spare traffic calming measure inventory and any expected procurement of additional materials, such as additional speed cushions, is expected to take 1-2 months due to manufacturer supply constraints and interruptions caused by the COVID-19 pandemic. Additionally, any installed traffic calming measures typically deployed by Staff are temporary in nature requiring the removal by mid-October to allow for winter maintenance operations. For these reasons staff are recommending the temporary traffic calming approach of centreline flexible bollards and shoulder treatment as noted above.

Darlington Boulevard is slated for reconstruction in 2021 (pending budget approval) which will see a reconstructed roadway potentially comprised of rural/urban roadway with widths to current standards, a separated pedestrian facility and dedicated cycling lanes. It is recognized that the enhancement of this road by widening the traveled roadway and providing a newly paved condition may encourage higher speeds. As such, implementation of permanent traffic calming features is intended for this road where feasible and will be considered during the detailed design and provided to the public this fall. Staff will also be looking at traffic cut through mitigative measures which

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will be presented to area residents, most likely virtually, to garner public feedback as there will be impacts to local traffic patterns which will vary depending on the approach taken to address this.

Staff will be considering 40 km/hr speed zones/areas throughout the Municipality this fall and will add Darlington Boulevard as part of the overall review. Staff will monitor the effectiveness of traffic calming measures on reducing speeds to assist with detailed design of the street and determination of speed limit changes.

Should you have any questions or need further information, please don't hesitate to contact me.

Regards,

Ron Albright, P. Eng.
Acting Director, Engineering Services

cc: Robert Brezina, Capital Works Engineer

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