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Date **May 25, 2023** **Report No. 2023-340**

To Chair and Members
Vision Zero Road Safety Committee

From Mark Jacklyn
Director of Operational Services, Public Works Commission

1.0 Type of Report

Consent Item []
Item For Consideration [X]

2.0 Topic Forsythe Avenue – Traffic Calming [Financial Impact – None]

3.0 Recommendation

- A. THAT report no. 2023-340 regarding Forsythe Avenue – Traffic Calming BE RECEIVED; and
- B. THAT four (4) speed cushions BE APPROVED for installation on Forsythe Avenue between King George Road and Memorial Drive; and
- C. THAT a capital project to implement the Forsythe Avenue speed cushions BE CONSIDERED in the 2024 capital budget.

4.0 Background

At its meeting held April 26, 2022, City Council approved the following resolution:

Forsythe Avenue Traffic Calming, 2022-169

- A. THAT report no. 2022-169 titled “Forsythe Avenue Traffic Calming” BE RECEIVED; and

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- B. THAT four (4) temporary speed cushions BE INSTALLED along Forsythe Avenue.
 - C. THAT an all way stop control BE INSTALLED at the intersection of Forsythe Avenue and Driftwood Drive and that the necessary By-law BE PRESENTED to Council.

5.0 Analysis

Forsythe Avenue is classified as a local road with a posted speed limit of 40 km/h. Speed studies conducted along Forsythe Avenue revealed the 85th percentile speed of 56 km/h, which is considered high for a street having a posted speed limit of 40 km/h. The 85th percentile speed is the speed in which 85% of motorists are travelling at or below and is the industry standard for assessing vehicle speed operations.

A letter dated May 18, 2022, attached as Appendix “A” to this report, was delivered to the residents along Forsythe Avenue to advise them of the temporary speed cushion installations. The majority of residents indicated they were pleased to have traffic calming in their neighbourhood.

The four (4) temporary speed cushions were installed on Forsythe Avenue in May, 2022 at the locations illustrated in Figure 1 below.

Figure 1 - Proposed Speed Cushion Locations



The temporary speed cushions were installed on Forsythe Avenue in June, 2022. Speed studies conducted with the speed cushions installed revealed an 85th percentile speed of 45 km/h, an 11 km/h reduction.

The temporary speed cushions were removed from Forsythe Avenue in November, 2022. Staff conducted follow up speeds studies after their removal and observed an 85th percentile speed of 53 km/h an increase of 8 km/h.

A neighbourhood engagement letter dated January 19, 2023, attached as Appendix “B” to this report, was delivered to Forsythe Avenue residents to encourage feedback regarding the speed cushions. 105 letters were delivered, and 38 comments (36%) were received. Of the responses returned, 29 (75%) noticed reduced travel speeds on the roadway when the temporary speed cushions were installed, and supported the installation of permanent speed cushions on Forsythe Avenue.

Based on the studies and resident feedback, staff recommend the installation of four permanent asphalt speed cushions at the same locations where the temporary speed cushions were installed as shown in Figure 1 above.

- Beside 4 Brier Crescent
- In front of 31 Forsythe Avenue

- In front of 61 Forsythe Avenue
- In front of 92 Forsythe Avenue

A traffic calming recommendations letter dated March 20, 2023, attached as Appendix “C” to this report, was delivered to 115 Forsythe Avenue residents outlining the proposed speed cushions on Forsythe Avenue. Two (2) responses (1.7%) were received; both residents expressed appreciation for the proposed permanent speed cushion installation.

The Brantford Fire Department suggests that traffic calming options be limited to the following by road classification:

- Arterial – No traffic calming measures
- Collector – Horizontal deflection or horizontal narrowing
- Local – Vertical or horizontal traffic calming measures

If vertical deflection measures are to be installed, the design and installation of such should be in a manner that causes the least impact on responding emergency vehicles.

6.0 Financial Implications

Staff will submit a capital project for consideration as part of the 2024 capital budget deliberations, at an estimated cost of \$20,000, for the installation of four (4) sets of permanent speed cushions on Forsythe Avenue.

It is important to note that enhancements, such as those noted in this report, will have a future impact on maintenance costs associated with asphalt repair, signs and pavement markings.

7.0 Climate and Environmental Implications

The installation of traffic calming measures will reduce vehicle greenhouse gas emissions since increased speed leads to more greenhouse gas emissions. Additionally, traffic calming measures reduce traffic speeds, creating safer environment for walking and cycling, which encourages active transportation.

8.0 Conclusion

The temporary speed cushions installed on Forsythe Avenue reduced the 85th percentile speed by 11 km/h, from 56 km/h to 45 km/h. Speeds have returned to an undesirable level since the removal of the temporary speed cushions. Staff recommend the permanent installation of speed cushions on Forsythe Avenue to create a safer neighbourhood environment.



Mark Jacklyn
Director of Operational Services, Public Works Commission

Prepared By:
Melissa Lachance, Transportation Technologist

Attachments

Appendix "A" – Forsythe Avenue Speed Cushions letter dated May 18, 2022

Appendix "B" – Forsythe Avenue Neighbourhood Engagement letter dated January 19, 2023

Appendix "C" – Forsythe Avenue Traffic Calming Recommendation letter dated March 20, 2023

In adopting this report, is a by-law or agreement required? If so, it should be referenced in the recommendation section.

By-law required ☐ yes ☒ no

Agreement(s) or other documents to be signed by Mayor and/or City Clerk ☐ yes ☒ no

Is the necessary by-law or agreement being sent concurrently to Council? ☐ yes ☒ no

Appendix “A”



May 18, 2022

Forsythe Avenue (King George Road to Memorial Drive) Traffic Calming Pilot Project – Speed Cushions

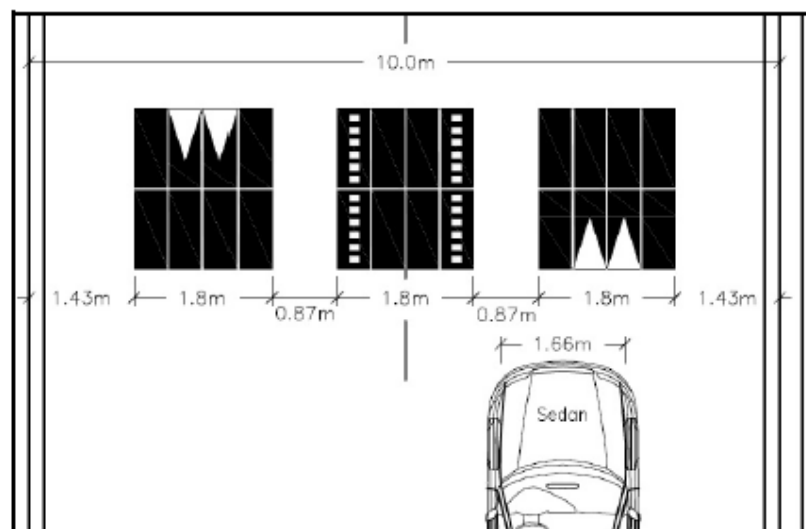
Dear Resident:

In December, 2022, a petition was received requesting staff to investigate and implement measures to slow vehicles on Forsythe Avenue. Staff undertook a speed study and verified undesirable travel speeds.

Staff subsequently prepared a report to the Vision Zero Road Safety Committee, recommending that four (4) sets of temporary speed cushions be installed along Forsythe Avenue to test their effectiveness and measure neighbourhood acceptance. City Council, at their meeting April 26, 2022, approved the recommendation of the Committee.

Staff will soon be coordinating the installation of the speed cushions on Forsythe Avenue. Figure 1 illustrates the general setup of temporary rubber speed cushions for Forsythe Avenue.

Figure 1 – Temporary Rubber Speed Cushions



Speed cushions are a type of traffic calming device installed across the width of the road that requires vehicles to reduce speed in order to minimize discomfort before driving over them. It is also designed to minimize impact to emergency vehicles by allowing some emergency vehicles to straddle between the cushions. To be effective, the cushions are generally placed between 100 m to 150 m intervals. The specific intervals also take in to consideration other factors such as proximity to intersections, driveways, and utilities. The proposed location of the speed cushions is illustrated in the diagram attached to this letter.

The temporary rubber speed cushions are a non-permanent traffic mitigation tool to be installed on a trial basis in the Spring, and will be removed in the Fall. The rubber speed cushions will be used temporarily to measure the impact of the speed cushions and to receive resident's feedback before considering permanent speed cushions.

Please contact Melissa Lachance, Transportation Technologist at 519-759-4150 Ext. 5182 or e-mail at mlachance@brantford.ca if you have any questions or comments regarding the temporary speed cushions.

Yours truly,



David Ferguson, C.E.T.,
Manager of Traffic Services

CC: Councillor D. McCreary
Councillor G. Martin
B. Hutchings, CAO
I. Hans, P. Eng., General Manager, Public Works Commission
M. Jacklyn, Director of Operational Services
R. Smith, C.E.T., Supervisor of Transportation Services

Appendix "B"



January 19, 2023

Forsythe Avenue Speed Cushions Pilot Project Neighbourhood Engagement
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Dear Residents:

As directed by City Council, temporary speed cushions were installed on Forsythe Avenue as a pilot project to test their effectiveness and receive resident's feedback before the consideration of a permanent installation. The temporary speed cushions were installed on Forsythe Avenue from June to November, 2022.

Public Works staff have been collecting traffic data and receiving resident feedback. Staff will report back to the Vision Zero Road Safety Committee regarding the pilot project and make long-term recommendations for Forsythe Avenue based on all available information and feedback received.

For the Committee to make informed decisions, your feedback is absolutely critical. Everyone's comments will help decide if speed cushions should become permanent on Forsythe Avenue.

To provide your comments, please contact Melissa Lachance, Transportation Technologist at 519-759-4150 Ext. 5182 or e-mail at mlachance@brantford.ca by Friday, February 3, 2023. Feedback will be reported to the Vision Zero Road Safety Committee to aide in their decision. Personal information will stay confidential. Thank you in advance for your participation.

Yours truly,

Rob Smith, C.E.T.,
Supervisor of Transportation Services

CC: Councillor D. McCreary
Councillor G. Martin
B. Hutchings, CAO
I. Hans, P. Eng., General Manager, Public Works Commission
M. Jacklyn, Director of Operational Services
D. Ferguson, C.E.T., Manager of Traffic Services

Appendix "C"



March 20, 2023

Forsythe Avenue Traffic Calming Recommendation

Dear Residents:

As directed by City Council, temporary speed cushions were installed on Forsythe Avenue as a pilot project to test their effectiveness and receive resident's feedback before the consideration of a permanent installation. The temporary speed cushions were installed from June to November, 2022. Staff circulated a follow-up letter in January, 2023 requesting feedback regarding your opinion on the installation of permanent speed cushions.

Seventy-five percent (75%) of those that responded are in favour of the permanent installation of speed cushions. Staff analyzed the operating speed before (56 km/h), during (45 km/h) and after the installation (53 km/h) of the temporary speed cushions. The results concluded that the operating speed was reduced when the speed cushions were installed (reduction of 11 km/h), and has returned to an undesirable level since their removal.

Staff will be recommending to the Vision Zero Road Safety Committee that permanent speed cushions be installed at the following locations:

- Beside 4 Brier Crescent
- In front of 31 Forsythe Avenue
- In front of 61 Forsythe Avenue
- In front of 92 Forsythe Avenue

The proposed speed cushion locations are illustrated in the diagram on the reverse of this letter. Please contact Melissa Lachance, Transportation Technologist at 519-759-4150 Ext. 5182 or e-mail at mlachance@brantford.ca by Friday, April 7, 2023, if you have any additional questions or comments regarding the traffic calming recommendation.

Yours truly,

A handwritten signature in black ink, appearing to be "Rob Smith".

Rob Smith, C.E.T.
Supervisor of Transportation Services

CC: Councillor D. McCreary
Councillor G. Martin
I. Hans, P. Eng., General Manager, Public Works Commission
M. Jacklyn, Director of Operational Services
D. Ferguson, C.E.T., Manager of Traffic Services

