

Report To: Committee of the Whole

Meeting Date: June 21, 2021

Subject: Nelles Road South and Dorchester Drive Traffic Study

Recommendation(s)

1. That Report DPW21-16 Nelles Road South and Dorchester Drive Traffic Study dated June 21, 2021 be received; and
2. That the results from the Nelles Road South and Dorchester Drive Traffic Study be received.

Purpose

The purpose of this report is to present the results of the Nelles Road South and Dorchester Drive Traffic Study completed by EXP Services Inc. in May 2021, and outline proposed next steps.

Background

In March of 2020, Town staff along with EXP Services Inc. initiated a comprehensive traffic study within the Nelles Road South and Dorchester Drive neighborhood. This area of Town has been the source of numerous resident inquiries and concerns over the past decade, mainly focusing on issues of road safety and traffic speeds. This has triggered an increase in routine traffic monitoring by Town staff, as well as three (3) previous traffic studies.

Although previous monitoring results and traffic studies have not warranted additional traffic calming measures, concerns and perceptions regarding speed and road safety remain. Therefore, due to these lingering concerns, and along with Town staff's efforts to be proactive towards road safety, this comprehensive traffic study was initiated. The study comprised of three (3) parts:

1. Public Engagement and Education – connect with residents to collect their feedback on existing issues and concerns with regards to traffic and road safety, existing and future Town facilities (such as sidewalks), and to provide results back to residents to assist in educating and alleviating concerns.

2. Road Safety Review – the goal was to review and evaluate existing conditions, determine corrective actions (if required), and evaluate opportunities for improvement.
3. Sidewalk Connection Review and Conceptual Design – evaluate the possibility of providing a new sidewalk connection along Dorchester Drive and Nelles Road South.

Analysis/Comments

Public Engagement and Education

The public engagement section of the study is aimed at better connecting with the residents and is intended to provide the Town with the opportunity to address these lingering concerns and perceptions regarding traffic and road safety within the study area. To collect data, an online survey was conducted in which residents were able to identify their concerns and provide the Town with feedback on areas of improvement. From this, the Consultant was able to quantify the high priority issues and allow for those issues to be further investigated. In addition, this allows staff to provide the results back to the residents, providing validation (if any) to existing perceptions.

Below is a brief outline of some of the findings:

- A total of 358 people responded, with 186 respondents (52 percent) completing the entire survey. Of the respondents, half identified as living directly on Dorchester Drive and Nelles Road South.
- Majority of the respondents (84 to 90 percent) utilize Dorchester Drive and Nelles Road South for recreational walking or cycling, and roughly half utilizing as walking/cycling route to school.
- The survey identified three (3) high priority issues/concerns as noted by residents: high travel speeds, high traffic volumes and risks to pedestrians and cyclists. These issues/concerns were reviewed and analyzed in relation to data collected in the road safety review to evaluate the validity of these concerns, and to provide recommendations of corrective actions (if required).
- Installation of sidewalks along Nelles Road South and Dorchester Drive were identified as the most suitable option for improving safety and comfortability within the study area.
- When asked whether they would support the installation of sidewalks, residents responded:

- Eighty-eight (88) percent of respondents in support of sidewalk along Dorchester Drive between Nelles Road South and Hedge Lawn Drive. Of residents who live within this section, sixty-eight (68) percent are in support.
- Eighty-seven (87) percent of respondents in support of sidewalk along Nelles Road South between Kennedy Road and Dorchester Drive. Of residents who live in this section, eighty (80) percent are in support.

Road Safety Review

The road safety review completed by EXP Services Inc. observed both historical and existing traffic conditions, and was tasked with determining effective countermeasures to address safety concerns (if necessary). It should be noted that through this process the following relevant data was evaluated:

- Traffic volumes
- Travel speeds
- Collision history
- Pedestrian trends
- Road characteristics (road alignments, driver sightlines, etc.).

Based on the results of the study, the report presented the following observation and safety concerns to be addressed:

1. Traffic speeds along Dorchester Drive were not found to trigger additional intervention or enforcement as they are within appropriate operating conditions (i.e. high compliance and low average and 85th percentile speeds).
2. Traffic speeds along Nelles Road South were determined to be higher and therefore warranted additional review and intervention.
3. Lack of sidewalks available along the west end of Dorchester Drive and Nelles Road South to allow for separation of pedestrians from motor vehicles.
4. Limited stopping sight distance along Dorchester Drive due to existing road geometry.
5. On-street parking that may be increasing potential pedestrian-vehicle conflicts.
6. Irregular configuration of the intersection of Nelles Road South and Dorchester Drive.

Sidewalk Connection Review

This section of the report focuses on an evaluation of a potential sidewalk connection along Dorchester Drive and Nelles Road South. Over the past decade, numerous inquiries and requests have been made for the construction of a sidewalk in the west end of the neighborhood to tie into the existing infrastructure. Therefore, the goal of this exercise was the following:

- Evaluate the need for a new sidewalk connection
- Identify constraints and feasibility
- Identify conceptual design alternatives and provide a preliminary cost estimate

The report looks at options for the installation of a sidewalk along the north and south side of Dorchester Drive, and the east and west side of Nelles Road South. Both sections of road face some challenges, including limited space to construct the sidewalk due to existing roadside ditches, conflicts with utility poles, existing mature trees, etc. Either side also poses an impact to the residents, who may perceive the new sidewalk as being intrusive.

Based on the results of the analysis, it was recommended that the Town consider the following:

1. Install a new 1.5 metres sidewalk with a 1.0 metres boulevard and a 0.5 metres concrete curb on the west side of Nelles Road South to connect with existing sidewalk at Kennedy Road;
2. Install a new 1.5 metres sidewalk with a 1.0 metres boulevard and a 0.5 metres concrete curb on the north side of Dorchester Drive. Due to the severe grade from the escarpment on the south side, sidewalk installation is only feasible on the north side of Dorchester Drive; and
3. Upgrade the Nelles Road South and Dorchester intersection to improve operations and provide connectivity with new sidewalks along Nelles Road South and Dorchester Drive.

See Appendix A for a map of the proposed sidewalk connections.

Short-Term (Immediate) Steps and Improvements

A number of potential improvement opportunities were identified through the study. The following are the proposed short term improvement to be carried out by the Town:

- Town staff to complete public engagement exercise to provide study results and action plan to the residents.
- Targeted parking restrictions be implemented along Nelles Road and Dorchester Drive to improve areas with restricted driver sight distances.
- Install centreline and edge lines to narrow traffic lanes along Nelles Road South.
- Further intersection sightline review at t-intersections along Dorchester Drive.
- Lighting improvements at the intersection of Dorchester Drive and Governors' Road.
- Continued police enforcement, particularly during high pedestrian time periods.
- Education campaign with school regarding traffic safety/speed.
- Nonintrusive speed monitoring along Dorchester Drive Nelles Road South.
- Continue periodic installation of radar feedback boards to encourage/reinforce safe driving habits.

Medium-Term (2022) Steps and Improvements

The following are additional steps to be taken by Town staff to further address issues/concerns as a result of the study:

- Sidewalk design for shovel-ready project. Town staff to procure consulting services to complete detailed design and cost estimate for construction.
- Intersection improvements at Dorchester Drive and Nelles Road South to improve sightlines and overall operation.
- Monitor for grant opportunities (Regional/Provincial active transportation grants) to assist with construction of new sidewalks along Nelles Road South and Dorchester Drive.
- Continue with nonintrusive speed monitoring and deployment of Town radar boards along Dorchester Drive and Nelles Road South.

Long-Term (2024 and beyond) Steps and Improvements

- Construction of new sidewalk along Nelles Road South between Kennedy Road and Dorchester Drive.
- Construction of new sidewalk along Dorchester Drive between Nelles Road South and Hedge Lawn Drive.
- Continued monitoring of traffic patterns to assess if additional issues or opportunities exist which require action from Town staff.

Strategic Priorities

The findings and recommendations outlined here go directly toward the Town of Grimsby's strategic priorities of Transportation and Road Safety.

4 - Transportation and Road Safety

Goal #4 - Provide safe and efficient transportation options throughout Grimsby.

Financial Impact

Short-Term Improvements

Minimal financial impact (signs, pavement markings, etc.)

Medium and Long-Term Improvements

Medium and long-term improvements will require a more significant investment from the Town of Grimsby to design and construct the new proposed sidewalk connection. Town staff are recommending allocating budget for 2022-2024 to help fund the consulting and contractor services required to complete this work. In addition, Town staff will be actively monitoring for potential grant opportunities to offset the cost of the project with the potential of advancing the sidewalk construction work to as early as 2023. The table below outlines estimated action item costs:

Time Frame	Action Item	Cost Estimate
Mid-term (2022)	Proposed sidewalk survey/design	\$10,000
Mid-term (2022-2023)	Intersection improvements at Dorchester Drive and Nelles Road South	\$50,000
Long-term (2024)	Construction of sidewalk connection along Dorchester Drive and Nelles Road South	\$515,000

Conclusion

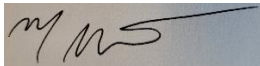
The completion of the Nelles Road South and Dorchester Drive Traffic Study has been successful at identifying existing traffic issues and concerns, and has allowed staff to prepare an appropriate action plan moving forward. Based on the results of the study, it was determined that the majority of issues and/or perception of issues stem from a lack of proper pedestrian facilities within the west end of the study area. With the implementation of a sidewalk, along with other minor improvements identified herein, overall traffic and road safety is expected to improve for all road users.

Following this meeting, staff will be updating the Town's project page and will communicate the conclusion of the study along with the various recommendations. Though the update we will be encouraging residents to provide further comment/feedback on the result and will provide an update to Council at a later date.

Respectfully prepared by,

Michael Palomba
Transportation Engineering Technologist

Respectfully reviewed by,



Marvin Ingebrigtsen,
Manager of Engineering Services

Respectfully submitted by,



Brandon Wartman
Director of Public Works

Approved by,



Harry Schlange
Chief Administrative Officer

Attachments

- Appendix A – Proposed Nelles Road South and Dorchester Drive Sidewalk Connection and Intersection Improvement Map