



THE CORPORATION OF THE CITY OF COURTENAY

STAFF REPORT

To: Council
From: City Manager (CAO)
Subject: Traffic Calming in the 500 Block of 3rd Street

File No.: 5460-01
Date: May 31, 2023

PURPOSE:

The purpose of this report is to provide Council with information with respect to concerns received from residents regarding traffic safety in the 500 block of 3rd Street.

BACKGROUND:

In 2004, the City received a formal petition from the residents of the Old Orchard neighbourhood requesting the formation of a Traffic Calming Group. Council agreed to form this group and undertake a study in order to consider recommendations. The Community Traffic Calming Program Report for the 2006 Old Orchard Neighbourhood is provided for reference in Appendix B.

With reference to public consultation and input from the Traffic Calming Group, the main concerns in 2004-2006 were traffic impacts of pending developments, shortcutting through the residential area, excess traffic and speeding on Anderton Avenue, Cliffe Avenue, and 3rd Street, and maintaining pedestrian safety and access throughout. Options were evaluated with engineering staff and a draft report was presented to a public open house in 2005 which was finalized and presented to Council in 2006.

The Traffic Calming Group indicated 3rd Street was a priority and their first choice of recommended measures was the installation of traffic circles at Duncan and Fitzgerald. As a separate concern, residents indicated that commercial heavy trucks were regularly using the Old Orchard roads a shortcut. Traffic counts indicated light but not excessive volumes of truck traffic. At the request of the group, the City issued a letter to each trucking company in the City requesting they utilize designated truck routes while providing a truck route map and a reminder of fines for not using truck routes.

New signs were then installed and existing signs were increased in size in various areas throughout the Old Orchard neighbourhood. To reduce traffic-related concerns, roads were partially closed along Cliffe Avenue at both 1st Street and 2nd Street. These partial road closures remain in place today such that no access is permitted from Cliffe Avenue onto both 1st Street and 2nd Street, whereas a right exit is allowed from both 1st Street and 2nd Street onto Cliffe Avenue.

Following the 2006 work, the City developed a Transportation Study with the Ministry of Transportation to identify and address transportation issues more broadly which included traffic, geometry, safety, control, tourism and development related pressures. This Transportation Study is included in Appendix C for reference. Note that the 2006 Transportation Study has since been updated and the most current version is the 2019 Transportation Master Plan, which is available on the City's website.

In 2016, staff received correspondence from the residents of the 500 block of 3rd Street expressing concern for excessive traffic speeds and volumes and requesting that traffic calming measures be implemented. Data was collected at the time which indicated traffic speeds and volumes were appropriate for the classification

Traffic Calming in the 500 Block of 3rd Street

of the street and fell comfortably within safe parameters. No additional traffic calming measures were recommended or implemented at that time.

At the August 29, 2022, Council Meeting, a delegation of residents from the 500 block of 3rd Street appeared before Council to express concerns and Council directed staff to investigate. The information following in this report focuses specifically on the 500 block of 3rd Street.

DISCUSSION:

In response to direction by Council, Public Works Services conducted a review of road characteristics on the 500 block of 3rd Street between Harmston Avenue and Fitzgerald Avenue. A map of the area is included in Appendix A.

One suburban single-lane traffic circle is installed on 3rd Street and Fitzgerald Avenue which is operating adequately in terms of capacity and level of service. The design of this traffic circle however does not conform to the same typical geometry guidelines and norms used for other traffic circles in the City (e.g., the traffic circle on 3rd Street at Duncan Avenue has an engineered radius and curb extensions).

Location Description

The area along the 500 block of 3rd Street between Harmston Avenue and Fitzgerald Avenue is generally comprised of single-family dwellings. An access point to the McPhee Meadows City Park is planned for 3rd Street near Harmston Avenue. To the north, 3rd Street is an industrial/commercial street between Cliffe Avenue and England Avenue.

There are pedestrian crossings at all four legs of the intersection of 3rd Street and Fitzgerald Avenue. The study area consists of one intersection:

- 3rd Street at Fitzgerald Avenue (four-leg intersection with a traffic circle)

Existing Conditions

In 2023, the 500 block of 3rd Street is characterized by the following conditions:

- Road Classification: local road with bi-directional traffic
- Cycling Network Plan Implications: future neighbourhood bikeway
- Transit Route: no transit routes
- Traffic Volume: the average daily two-way traffic volume is approximately 397 vehicles
- Posted Speed Limit: currently 50 km/hr and future will be 40 km/hr for a cycling facility (pending council adoption of the update Cycling Network Plan)
- Alternate use: no alternate uses (e.g., truck route) and no loading zones in the immediate area
- Pedestrian Access: sidewalks are installed on both sides of 3rd Street from Fitzgerald Avenue to the bend at Harmston Avenue except between 555 3rd Street and 325 Harmston Avenue

Parking regulations on the 500 block of 3rd Street between Harmston Avenue and Fitzgerald Avenue are generally as follows: no parking restrictions aside from a small area of no parking on the corner of 3rd Street and Fitzgerald Avenue due to sightline constraint.

Collision Data

Collision data is tracked by ICBC. A review of the collision data within the study area was undertaken for the five-years ending Jan 1, 2022. The results of the review are summarized in Table 1.

Table 1: 2017-2021 Collision Summary: 3rd Street between Harmston Avenue and Fitzgerald Avenue

Year	Vehicle Collisions
2017	1
2018	0
2019	0
2020	0
2021	0

As shown in the table above, there was one vehicle collision between 2017 and 2021. Additionally, this review did not disclose any collisions that could be attributed to excessive speeding or aggressive driving along 3rd Street between Harmston Avenue and Fitzgerald Avenue.

Best practice would suggest that if there are 3 or more documented incidents per year over a 5 year period, the street would begin to warrant a safety review. Collision data from an earlier traffic calming study provided in Appendix B and summarized below in Table 2, shows that collisions prior to the installation of the traffic circle were not above the threshold to warrant a safety review.

Table 2: 2000-2004 Collision Summary: 3rd Street between Harmston Avenue and Fitzgerald Avenue

Year	Vehicle Collisions
2000	3
2001	0
2002	0
2003	2
2004	1

Review Matrix - Overview

Traffic Operations Staff conducted a detailed review on the 500 block of 3rd Street between Harmston Avenue and Fitzgerald Avenue. This review included all aspects of the road's operation. The results are summarized below.

A. Signage

The signage within the study area was generally found to be in good condition and was visible to road users. The existing street name signs are also visible. The current signage conforms to Transportation Association of Canada standards with regard to location and placement. Truck route and neighbourhood calming signs at the intersection of 4th Street and Harmston Avenue were relocated from behind a private fence.

B. Pavement markings

The pavement markings within the study area were in good condition and will be refreshed as part of the Public Works Services annual painting program, as required.

C. Sightlines

Sightlines on 3rd Street are generally good. As 3rd Street bends into Harmston Avenue there is a small section of parking that has been restricted due to poor sightlines.

D. Sidewalks

Sidewalks along 3rd Street within the study area were in fair to poor condition and currently do not conform to the City's specifications. No sidewalks are installed between 555 3rd Street and 325 Harmston Avenue, which is adjacent to a potential access point for the future McPhee Meadows City Park.

E. Street Lighting

There is limited street lighting on 3rd Street between Fitzgerald Avenue and Harmston Avenue. Existing street lighting is installed on BC Hydro poles and does not meet current lighting criteria.

F. Parking Regulations

Parking is restricted around the blind corner as 3rd Street turns into Harmston Avenue. There are no other parking regulations on 3rd Street. The parking restrictions around the blind corner allow for safe and efficient traffic operations. No changes to the existing parking on 3rd Street are recommended at this time.

G. Traffic Control Devices

Traffic control devices are marked on the map included in Appendix A. Except the traffic circle signs at the intersection of 3rd Street and Fitzgerald Avenue, all traffic control devices meet current Transportation Association of Canada standards.

H. Speed and Volume Data

Speed and volume data were collected between March 10 and April 11, 2023. Data showed the 85th percentile speed of vehicles on 3rd Street ranges from 36 km/hr to 41 km/hr, depending on when the data was taken and the direction of travel. This data suggests vehicle speeds comply with the current speed limit of 50 km/hr.

In comparison, collected traffic data in 2016, found the 85th percentile speed on 3rd Street was approximately 47 km/hr. Further traffic speed data from 2005 (prior to the installation of the traffic circle at 3rd Street and Fitzgerald) showed the 85th percentile speed of vehicles was approximately 50 km/hr.

Additionally, the daily traffic volume data in the study area ranges from approximately 170 to 326 vehicles per day, depending on when the data was taken and the direction of travel. Daily traffic volume in both directions is approximately 115 - 569 vehicles per day for an average of 397 vehicles per day. This data complies with the traffic volume for local residential streets, which are expected to carry up to 1000 vehicles per day.

Traffic Calming in the 500 Block of 3rd Street

Further, the average daily traffic volume in 2005 was recorded as approximately 860 vehicles per day. This suggests traffic volumes have decreased after the installation of the traffic circle at 3rd Street and Fitzgerald. The 2005 traffic calming study is provided in Appendix B.

Commercial vehicle traffic data was also collected by staff during the recent peak hour intersection counts and a small amount of commercial vehicle traffic moved through the 500 block of 3rd Street. Results found 7 commercial vehicles over two (2) hours in the morning peak count, and 3 commercial vehicles over a ninety (90) minute period in the afternoon peak hour count.

Conclusion:

Generally, traffic calming seeks to ensure that projects chosen are introduced at locations where we know that the majority of drivers are traveling at a speed in excess of the speed limit to a degree where traffic calming would be expected to provide measurable reductions.

Based on the available data, 3rd Street is operating within industry standards in terms of traffic speed and volume. Comparisons of 2023 data against 2006 data illustrate that both traffic speed and volumes have decreased after the installation of neighbourhood traffic calming measures including partial road closures and traffic circles. Collisions have also been reduced. This data suggests existing traffic calming measures are effective. Due to available data additional traffic calming measures are not recommended.

Understanding the continued concerns of residents, the following speed management tools are recommended for the study area:

- Pedestrian crosswalks and centre lines be refreshed as required – *annual program*.
- Addition of no parking signs on the bend of 3rd Street due to sightline constraints – *complete*.
- Update and relocate “No Truck” signs to enhance visibility – *complete*.
- Relocate truck route and neighbourhood calming signs to enhance visibility – *complete*.
- Approved cycling facilities implemented as recommended for a neighbourhood bikeway with a speed reduction to 40 km/hr - *pending adoption of the Cycling Network Plan Update*.
- The addition of new temporary curbs or delineators at the traffic circle at 3rd Street and Fitzgerald Avenue to further enhance the turning movements, similar to that of the ultimate design as constructed at 3rd Street and Duncan Avenue – *pending*.

POLICY ANALYSIS:

Traffic calming policy developments are proposed to include a logical framework that addresses which measures are considered acceptable and when they are applicable for installation on City streets.

FINANCIAL IMPLICATIONS:

There are no financial implications associated with this report.

ADMINISTRATIVE IMPLICATIONS:

There are no administrative implications associated with the report.

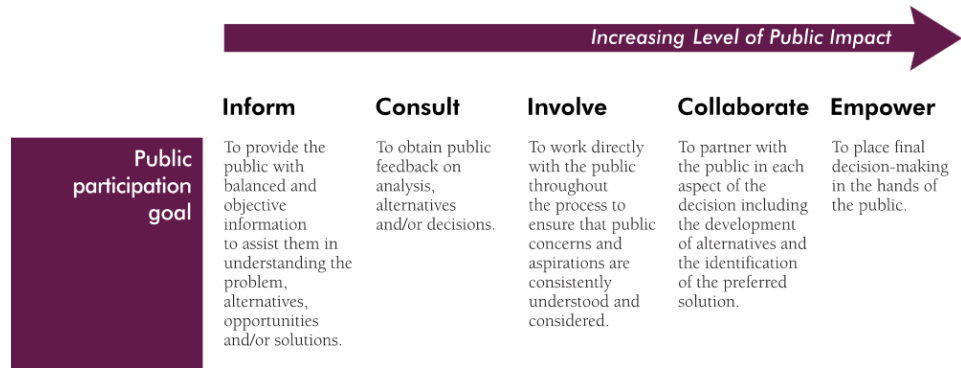
STRATEGIC PRIORITIES REFERENCE:

This initiative addresses the following strategic priorities:

- Streets and Transportation - Develop traffic calming plans, related policies, and specific implementation when and where, speed limits, school zones, cycling education/awareness
- Streets and Transportation - Implementation of traffic calming plans

PUBLIC ENGAGEMENT:

Staff would inform the public based on the IAP2 Spectrum of Public Participation:



© International Association for Public Participation www.iap2.org

OPTIONS:

1. THAT Council direct staff to implement additional traffic calming measures on the 500 block of 3rd Street as outlined in the conclusion of the report.
2. THAT Council direct staff to update the 2006 neighbourhood traffic study for Old Orchard.
3. THAT Council receives this report for information only.

ATTACHMENTS:

1. Area Map 500 block of 3rd Street between Harmston Avenue and Fitzgerald Avenue
2. 2006 Community Traffic Calming Program: Old Orchard Neighbourhood
3. 2006 Transportation Study

Prepared by: Michael Wright, MPA, P. Eng, Manager of Transportation & Fleet
Reviewed by: Kyle Shaw, ASCT, CPWI, CWP, CWWP, Director of Public Works Services
Concurrence: Geoff Garbutt, M.PI., MCIP, RPP, City Manager (CAO)