

Information Report



Service Area	Infrastructure, Development and Enterprise Services
Date	Friday, March 5, 2021
Subject	Transportation Engineering Program 2021

Executive Summary

Purpose of Report

The purpose of this report is to provide information about the planned 2021 Transportation Engineering Program, including red light camera deployment, new traffic control signals, all-way stops and pedestrian crossings, traffic calming and road safety installations and reporting metrics.

Key Findings

Six (6) red light cameras will be deployed and activated, one in each ward. The installation of two (2) new intersection traffic signals is warranted, as is the installation of three (3) new all-way stops. Twenty-two streets qualify for traffic calming and measures will be installed based on the prioritized list. Additional traffic calming measures will be implemented on Downey Road based on data collected after the Niska Road bridge opened.

Permanent real-time traffic, pedestrian data collection will be deployed at approximately eight (8) intersections, and a Road Safety Dashboard will be posted online to track road safety projects and metrics.

Financial Implications

All planned work is being completed using approved operating and capital funds from the 2021 budget approvals. There are no additional new financial requirements associated with this report.

Report

Details

Transportation Engineering Program Overview

The Transportation Engineering division of the City of Guelph includes staff responsible for:

- Downtown parking permits and fees
- Traffic signal design, programming and installation standards
- Traffic engineering which includes but is not limited to, traffic by-laws, on-street parking, construction detours, pavement marking requirements, and traffic studies

- Implementation of road safety measures including in the Community Road Safety Strategy and Traffic Calming Policy
- Adult School Crossing Guard Program

Staff are guided by Ontario Traffic Manuals (OTM), which provides criteria to determine when, based on traffic studies, all-way stops, traffic signals and other traffic control devices are warranted. These warrants are used throughout the Province of Ontario.

Additionally, numerous transportation engineering guidelines are provided by the Transportation Association of Canada (TAC), Ontario Traffic Council (OTC), Institute of Transportation Engineers (ITE) and the Canadian Parking Association (CPA). Staff use these guidelines to create policies and procedures to implement consistent application of measures.

Red Light Cameras (RLC)

The City, in consultation with the Province's RLC program operator TraffiPax are in the process of finalizing the locations for the six (6) RLC locations being activated in Q3 2021. Once these are finalized, the City will publically announce the locations before the cameras are activated.

Additionally, the City of Guelph (City) will launch an education campaign about red light cameras and road safety for the public. The City was awarded a \$4,000 grant from the Ministry of Transportation of Ontario (MTO) as part of the Road Safety Community Partnership Program financial support to create a red-light running awareness campaign that will help educate the public on the consequence of red light running prior to activating the red light camera program.

There is a testing period to ensure the RLC are functioning as intended prior to issuing any violations to drivers. Through the education and communications campaign, the public will be notified when the cameras will begin recording violations for prosecution.

Traffic Signals

When traffic control signals are installed after thorough analysis and careful consideration, the results ensure efficient traffic flow, minimize the likelihood of certain types of collisions and help prevent unnecessary fuel consumption, delay and driver frustration.

The traffic signal installation at the intersection of Gordon Street at Gosling Gardens will be completed in 2021. This location was carried over from the 2020 traffic signal installation program.

Based on analysis of current traffic, pedestrian and collision data, new traffic signals are recommended for installation in 2021 at the following locations satisfy the Provincial four-hour signal warrant:

- Downey Road at Niska Road
- Downey Road at Woodland Glen Drive

At the December 3, 2015 City Council meeting, the following resolution was passed:

That staff be authorized to complete the Schedule 'C' Municipal Class Environmental Assessment process and issue a notice of completion to place

the Environmental Study Report on the public record for the mandatory 30 day public review period and proceed with the implementation of preferred alternatives, **except for the signalization at Niska Road and Downey Road**, as outlined in the Council Report dated December 3, 2015.

Because signalization of this intersection is warranted, staff are proceeding with the installation of a temporary signal at the Downey/Niska intersection in 2021 as an interim measure until the ultimate intersection design is prepared, which will occur after the City completes the Transportation Master Plan and completes a roundabout policy to determine the suitability for a roundabout at this intersection.

Traffic Signal Modernization

Traffic signal modernization work is carried out annually for numerous beneficial reasons, namely:

- Achieving Accessibility for Ontario with Disabilities Act (AODA) compliance
- Reducing the maintenance costs by completing lifecycle replacements
- Reducing expected collision rates by upgrading to current industry standards.

Traffic signal modernizations will be completed at the intersections of Gordon Street at Kortright Road and Speedvale Avenue West at Dawson Road. The latter project was identified for 2020, but was delayed one year to better align with other planned infrastructure improvements.

Additional traffic signal modernizations will occur at various locations throughout the city, including the following:

- Upsizing all signal lenses to 30 centimetre displays
- Adding an additional auxiliary signal head with 30 centimetre displays on the far left of the intersection
- Improving accessibility to pedestrian push buttons
- Installing reflective backboards to enhance traffic signal visibility
- Continuation of accessible pedestrian signal installations

Pedestrian Signal Relocation

To better align with the City's trail network and Active Transportation Network recommendations, the pedestrian signal located on College Avenue West in front of Centennial Collegiate Vocational Institute will be relocated easterly to the west leg of the College Avenue West at Vanier Drive intersection. This aligns the signalized crossing with the Royal Recreation Trail, which is identified as part of the Active Transportation Network. This work will be completed during the summer months while school is on break. This work is eligible for funding from the [Infrastructure Canada Investment Program – COVID program](#).

The various traffic signal related projects are shown in Attachment 1.

Pedestrian Crossovers

There are no new warranted pedestrian crossovers for 2021. Due to COVID related delays, crossovers identified for 2020 will be completed in 2021 at the following locations:

- Kortright Road East at Fieldstone Road
- Arkell Road at Amos Drive/Zecca Drive

- Delhi Street at Emma Street
- York Road at Harris Street/Boult Avenue
- Farley Drive between Eugene Drive/Porter Drive

The various pedestrian crossover projects are shown in Attachment 2.

All-way Stop Installation

Warranted all-way stop installations are proven to reduce collision rates and balance out delay between two roadways of similar traffic volumes. Based on 2020 studies, warranted all-way stops are satisfied at the intersections:

- Arthur Street South at Cross Street
- Waverley Drive at Stevenson Street North
- Waverley Drive at Windsor Street

The various all-way stop projects are shown in Attachment 3.

Automated Speed Enforcement (ASE)

The City continues to explore the launch of Automated Speed Enforcement programs in various Ontario municipalities and will bring forward more information on ASE in the planned July 2021 report regarding speed limits in the City limits.

Traffic Calming

In July 2020, Council approved an update to the [City's Traffic Calming Policy](#). Since that time, numerous studies have been completed and staff are prioritizing traffic calming designs on the following streets in 2021 based on their prioritization score:

- Niska Road between Downey Road and City limits
- Starwood Drive between Eastview Road and Watson Parkway North
- Riverview Drive between Speedvale Avenue East and Waverley Drive
- Waverley Drive between Riverview Drive and Balmoral Drive
- Ptarmigan Drive between Niska Road and Downey Road

There are currently 22 streets that qualify for traffic calming. Staff will work through the prioritization list as resources and funding allow. Streets that qualify for traffic calming with a lower prioritization score may receive other road safety interventions through the Community Road Safety Strategy as an interim measure until the full traffic calming process can be completed.

Temporary Traffic Calming Measures

City staff will seek to proactively identify temporary traffic calming locations throughout the year that are necessary as a result of road closures and construction. For example, there will be seasonal temporary traffic calming measures installed on local roadways that are near arterial road closures that will likely see an increase in traffic as a result of the road closure.

The various traffic calming projects are shown in Attachment 4.

Downey Road Traffic Calming Update

At the July 2, 2019 Committee of the Whole meeting a deferral motion was passed in relation to phase 2 traffic calming measures for Downey Road:

That the decision with respect to Staff Report [IDE-2019-71](#) titled “Downey Road Transportation Improvement Plan – Implementation Update” dated July 2, 2019 be deferred until the Niska Bridge opens and radar is installed; and

That staff continue to monitor.

Staff completed data collection after the Niska Bridge opened and permanent speed radar boards were installed on Downey Road between Hazelwood Drive and Ptarmigan Drive. The data collection, shown in Table 1 indicates that additional measures are required and staff will be proceeding with Phase 2 recommendations for speed cushion installations as outlined in IDE-2019-71 and shown in ATT 1 – Downey Road Next Step Traffic Calming Measures.

Table 1: Downey Road 85th Percentile Speed Comparisons

Location of study on Downey Road	85th Percentile Speed - 2016	85th Percentile Speed - 2019 (while Niska Bridge Closed)	85th Percentile Speed - 2020 (after Niska Bridge Opened)
Between Niska/Hazelwood	North 58 km/h South 58 km/h	North 61 km/h South 54 km/h	North 61 km/h South 61 km/h
Between Hazelwood/Ptarmigan	North 65 km/h South 60 km/h	North 68 km/h South 63 km/h	North 62 km/h South 62 km/h
Between Pheasant Run/Teal	North 64 km/h South 62 km/h	North 63 km/h South 57 km/h	North 61 km/h South 63 km/h

The Downey Road traffic calming plan is shown in Attachment 5.

Community Road Safety Strategy

City Council approved the Guelph [Community Road Safety Strategy](#) (CRSS) in July 2020. This year numerous additional road safety interventions will be installed as funding permits.

In 2020, the City piloted a Slow Streets program, intended to make drivers aware to remain off local roadways unless your trip starts or ends on that street and to be aware of the possibility of increased pedestrian activity. The City is part of a working group with other Ontario municipalities to share best practices and lessons learned to improve for a second pilot Slow Streets campaign in 2021.

Other CRSS measures proposed for installation in 2021 include:

- Review of all posted speed limits in the City limits, with a planned report coming to Committee of the Whole in Q3 2021
- Installing additional radar display boards
- Increasing the number of traffic signals with leading pedestrian intervals
- Installing seasonal flexible in-road signs to narrow wider lanes and roadways
- Installing traffic calming curbs to narrow wide roadways and intersections
- “Please Slow Down” lawn signs

It is anticipated by the end of Q2 2021, the City will launch a road safety dashboard on [guelph.ca](#) to highlight the number and type of road safety interventions installed

and other metrics related to road safety. This dashboard will present information related to Key Performance Indicator 3.3 within the Navigating our Future strategic plan pillar “Percent reduction in collision severity” and Strategic Initiative 3.2.2 “Implement the Community Road Safety Strategy”.

Adult School Crossing Guard Program

The City continues to operate our Adult School Crossing Guard (ASCG) Program. There are currently 33 locations with ASCG, requiring 41 regular part-time staff. There are 10 spare guards available to cover off vacancies, however there are routine challenges to recruit that many spare guards. When there are more vacancies than spare guards available, full time staff from the Transportation Engineering department will provide ASCG coverage.

There are currently 34 locations requested for an ASCG and these locations will be reviewed throughout the remainder of 2021 if/when traffic and pedestrian patterns have normalized.

Downtown Parking Program

As identified in the 2021 budget documents, staff are preparing to initiate an update to the Downtown Parking Master Plan in 2021/2022. Additionally, staff are identifying possible solutions to address the resolution passed at the December 1, 2020 City Council budget meeting:

That staff be directed to examine further opportunities to reduce the tax support to the parking operation and report to Council recommendations in advance of the 2022 budget deliberations.

Council will receive an update on the planned Downtown Parking Master Plan scope and opportunities to reduce the tax support to the parking program in an information report prior to 2022 budget deliberations.

Financial Implications

All planned work is being completed using approved operating and capital funds from the 2021 budget approvals. There are no additional new financial requirements associated with this report.

Consultations

Depending on the project, information will be shared with stakeholders as required prior to the start of each project.

Strategic Plan Alignment

These projects align with the directions within the City’s ‘Navigating our Future’ strategic priority by expanding, modernizing and enhancing the transportation network within the City to encourage active transportation and enhance the safety of the transportation network.

Attachments

Attachment-1: Traffic Signal program of work map

Attachment-2: Pedestrian Crossover program of work map

Attachment-3: All-Way stop program of work map

Attachment-4: Traffic Calming program of work map

Attachment-5: Downey Road Speed Cushion installation map

Departmental Approval

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