



COMMUNICATION UPDATE

TO:	Mayor and Members City Council
DATE:	July 5, 2022
SUBJECT:	Update: Safety Enhancements to Main Street and King Street (CRO22022) (City Wide)
WARD(S) AFFECTED:	City Wide
SUBMITTED BY:	Edward Soldo Chief Road Official Public Works Department
SIGNATURE:	

On May 11th 2022, Council approved a [motion](#) focused on the development of safety enhancements on major arterial roads, including the conversion of Main Street from a one-way to a two-way roadway.

The City has adopted a [Vision Zero](#) safe systems approach to roadway safety, recognizing that the transportation system must be designed in a way that prevents collisions as much as possible and lessens the impacts of collisions when they do happen. Vision Zero focuses on the design of our communities and roads, how speeds are set and managed, how vehicles are permitted to operate and what transportation mobility options exist where and for whom.

Background roadway safety data for Main Street is included in Appendix A.

Short-term Roadway Safety Enhancements

The Council direction includes immediate actions to improve safety for road all users along Main Street and King Street. The goal of these enhancements is to improve overall safety for all users, with particular attention to vulnerable users through the introduction of measures to separate pedestrians by either time or space from vehicles. The City has been assessing alternative measures and the following provides a tentative implementation overview and timeline.

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

Parking Modifications

The addition of on-street parking and encouragement of its use has the effect of reducing the number of travel lanes while also providing a buffer between pedestrians and moving traffic. Much of the on-street parking on Main Street and King Street is under-utilized due to rush hour restrictions and other historical restrictions. Adjustments to permitted parking locations and changes to parking restrictions along the Main Street corridor will include:

- Removal of morning and afternoon rush hour restrictions on the north side to encourage parking
- Removal of the through-street designation to allow for overnight parking near residential blocks
- Outside of the downtown core, where there is existing under-utilized paid parking, remove paid parking meters while retaining two-hour max time limit during operational hours which typically begin at 8:00 a.m. end at 9:00 p.m., and allow parking for up to 12 hours between 9:00 p.m. and 8:00 a.m.
- Add additional 2 hour paid parking near City Hall on the north side, and on the north and south side in front of Gage Park
- Further restrict south side to predominantly “No Stopping Anytime” to assist with HSR route and Public Works needs, while turning existing loading and commercial loading zones to “No Parking Anytime” to allow for short duration loading and curb-side pick-up/drop-offs

By-laws enacting the above changes will be submitted for the August 12, 2022 Council Meeting. Following a review of the results of parking changes on Main Street, similar modifications will be applied to locations on King Street.

Signalized Intersection Modifications

- The traffic signal timings are being modified to incorporate Leading Pedestrian Intervals (LPI) at all the signalized intersections along the Main and King Street corridor. In addition, pedestrian walk speed is being modified to 1.0 m/s from 1.2 m/s to allow additional time for pedestrians to complete the crossing safely. These changes will be implemented beginning in July and are anticipated to be completed by the end of August.

Pedestrian “countdown” signals (PCS) will be installed at all signalized intersections to assist pedestrians in crossing the street. The countdown device provides a numeric countdown display that indicates the number of seconds remaining for a pedestrian to complete his/her crossing of a street. The installation of PCS’s will be implemented in a priority order utilizing collision performance data to guide location and schedule. This work will be undertaken

over the summer and anticipated to be completed for priority locations on Main Street and King Street by September, with the remainder completed by end of the year.

- No right turn on red (NRTOR) restrictions are proposed at the majority of Main Street and King Street signalized intersections for vehicles turning right onto the major arterial (exception at intersections with transit stop locations) and turning right off the major arterial roadway. This will make the pedestrian crossings safer as drivers will not be blocking crosswalks due to limited sight lines at many of the intersections.

The NRTOR restriction bylaw for Main Street will be presented to Council on July 8th for Main Street and August 12th for King Street, implementation will commence upon approval of the bylaws. Appendix B includes a list of proposed intersections on Main Street with NRTOR restrictions.

Pedestrian Crossing Enhancements

- Ladder crossing markings will be implemented at all signalized intersections and along the arterials at stop controlled side streets. The addition of ladder lines enhances the visibility of the pedestrian crossing area and alert motorists to the potential of pedestrians. This work is currently underway along Main Street and is anticipated to be completed by the end of July. King Street will be completed by end of 2022.
- The City of Hamilton's first Pedestrian Priority Phase (PPP), also known as pedestrian scramble, giving pedestrians exclusive access to an intersection, is planned for Main Street/Summers Lane with implementation expected by end of 2022.
- The implementation of new Intersection Pedestrian Signals (IPS) has been identified for the Main Street/Hilda Avenue and Main Street/Melrose Avenue intersections. The transit stops in these areas may be modified to provide enhanced access to the new IPS locations. Implementation is scheduled for 2023 and will be funded through the 2023 Capital Budget process.

Travel Lane Modifications

- The corridor will be restriped from five lanes down to four lanes along Main Street between Dundurn Street and Sherman Avenue. This measure will help reduce the number of side swipe collisions throughout the corridor due to substandard lane widths and provide a pedestrian buffer adjacent to the south side sidewalk.

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- Lane restrictions will be implemented strategically at signalized intersections through designated turn lanes and the installation of temporary bump outs in order to provide protection for parking along the north side of Main Street and shorten the crossing distances across intersections for pedestrians.
- Modifications will be made at the intersection of MacNab Street and Main Street to better delineate space for transit vehicles. The potential for a transit queue jump lane is also being reviewed for implementation.

These modifications are scheduled to be completed by the end of August.

Speed Management

- A number of locations are being assessed for the installation of Dynamic Speed Signs as an educational tool for motorists regarding speeds.
- Staff are investigating the feasibility of installing an Automated Speed Enforcement (ASE) location on Main Street and new Community Safety Zones on Main Street between Dundurn Street and Queen Street and Gage Avenue and Delta Park as well as on King Street between Dundurn Street and Locke Street, Emerald Street to Wellington and Lottridge Street to Gage Avenue. A report on this matter will be presented to Council at the Public Works Committee meeting on August 10th, 2022.

A Targeted Education Campaign will be implemented to inform residents of the different roadway safety measures including: no right turns on red, leading pedestrian intervals, community safety zones, and transit queue jump operation.

Main Street Implementation Plan

The approved conversion of Main Street from one-way to two-way operations requires the development of an implementation plan that will integrate a Complete Streets redesign that will enable safe use for all road users including public transit passengers, pedestrians, motorists and cyclists and will also incorporate a climate change lens by considering additions such as urban trees and permeable surfaces in the planning process.

The City has engaged a consultant to develop alternative concepts for evaluation and undertake an assessment of capital improvement costs, construction timing and required approvals. A project [website](#) has been developed and the public consultation will include the Engage Hamilton online engagement tool and a public information centre in the fall of 2022.

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If you have any questions, please contact Edward Soldo, Chief Road Official, by phone at Ext. 4622 or email at edward.soldo@hamilton.ca.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” – Background Roadway Safety Data for Main Street

Appendix “B” – List of Existing and Proposed No Right Turn on Red locations

Roadway Safety Data – Main Street

1. 85th Percentile Speed

Speed data is available at 4 locations within the corridor:

Location	85th percentile speed
Main Street East between Balsam Avenue and Connaught Avenue	57 km/hr
Main Street East between Victoria Avenue and Wellington Street	56 km/hr
Main Street West between Queen Street and Ray Street	59 km/hr
Main Street West between Hwy 403 EB Ramp and Macklin Street	75 km/hr

2. Traffic Volume

The maximum volume reported along the Main Street corridor for each time period is shown below:

A.M. Peak Hour	P.M. Peak Hour	Off Peak Hour	Average Daily Traffic
2807	2899	2442	36049

3. Collision Data

Five years (i.e. 2017-2021) Collision data along the corridor are summarized below:

Location Type	Total	Fatal	Injury	PDO	Pedestrians	Cyclist
Intersections	1356	1	210	1145	56	19
Midblock	517	0	81	435	17	16
Total	1873	1	291	1580	73	35

4. Network Screening

Intersections with Highest Frequency of
Fatal and Injury Collisions, 5 Year Average (2017–2021 and 2016–2020)

Intersection	Collision Frequency 2017–2021	Collision Frequency 2016–2020
John Street South at Main Street East	28	27
Main Street East at Wellington Street South	26	25
Fennel Avenue West at Upper James Street	24	23
Barton Street East at Centennial Parkway North	23	23
Main Street East at Victoria Avenue South	22	24
Mohawk Road West at Upper James Street	22	22
Centennial Parkway South at Queenston Road	21	23
Barton Street East at Gage Avenue North	21	21
Mohawk Road East at Upper Wentworth Street	21	28
King Street East at Victoria Avenue South	19	29

5. Red-Light Camera

Existing RLC sites along the corridor:

Location	Direction Monitored
Main Street West @ Dundurn Street South	Eastbound
Main Street West @ Queen Street South	Eastbound
Main Street West @ Bay Street South	Eastbound, Northbound
Main Street East @ Wellington Street South	Southbound
Main Street East @ Sanford Avenue South	Eastbound

Main Street – Proposed No Right Turn on Red Locations

From East to West	Eastbound (turning right off Main Street)	Northbound (turning right onto Main Street)
Gage	✓	✓
Springer	✓	✓
Sherman	✓	✓
Farleigh	✓	✓
Sanford	n/a (one-way)	✓
Wentworth	✓	✓
Emerald	✓	✓
East	✓	✓
Victoria	n/a (one-way)	✓
Wellington	no (buses)	n/a (one-way)
Walnut	✓	✓
Catharine	✓	n/a (one-way)
John	no (queuing)	no (queuing)
Hughson	✓	no (construction)
James	no (buses)	existing
MacNab	✓	✓
Bay	n/a (one-way)	✓
Caroline	✓	existing
Hess	n/a (one-way)	existing
Queen	✓	existing
Pearl	✓	n/a (one-way)
Locke	✓	✓
Dundurn	n/a (channelized)	✓
Total Locations	15	14