



INFORMATION UPDATE

TO:	Mayor and Members City Council
DATE:	June 25, 2019
SUBJECT:	Aberdeen Avenue Safety Measures (TOM1904) (Wards 1, 2, 8 and 14)
WARD(S) AFFECTED:	Wards 1, 2, 8 and 14
SUBMITTED BY:	Edward Soldo Director, Transportation Operations & Maintenance Public Works Department
SIGNATURE:	

At the Public Works Committee meeting on June 17, 2019 members of committee discussed several items relating to Report PW17021a - Update on Safety Measures on Aberdeen Avenue from Queen Street to Longwood Road. The purpose of this Information Update is to provide additional background information for Council.

The recommendations outlined in Report PW17021a are based on enhancing the safety for all users along the corridor, based on a safe by design approach that promotes the separation of vulnerable users through time or space from vehicles. This is the basis of numerous Council approved policies and plans such as the Transportation Master Plan, Pedestrian Mobility Plan, Safe Routes to School Charter, Vision Zero Action Plan and the 2016-2025 Strategic Plan.

These documents guide the development of solutions and recommendations through the lens of a safe systems/safe speeds approach and complete streets model which considers all road users to reduce collisions resulting in injuries.

IDENTIFICATION OF PROBLEM

In November 2015, the Kirkendall Neighbourhood Association (KNA), completed a report related to safety improvements needed for Aberdeen Avenue between Queen Street and Longwood Road. Through the public engagement process, this location was identified as a "Top 5" project through the Participatory Budgeting process. The purpose of the proposed changes was to create a street that functions well for a multitude of different users in the community. A number of issues and proposed countermeasures were identified in this report. Overall the theme of the proposed countermeasures were to

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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.

address safety concerns related to collisions, pedestrian safety and comfort, speeding and cycling.

As a result of the KNA report, Council directed staff to review Aberdeen Avenue and provide a list of countermeasures that could be supported for implementation. At the March 20, 2017 Public Works Committee meeting, staff submitted Report PW17021 - Interim Safety Measures on Aberdeen Avenue from Queen Street to Longwood Road. This report was approved by Council on March 29, 2017 with an amendment to report back to Public Works Committee. This resulted in Report PW17021a being submitted to Public Works Committee on June 17, 2019.

COLLISION DATA

From 2008 to present, there have been a total of 466 collisions (185 police-reported, 281 self-reported collisions) on Aberdeen Avenue between Queen Street and Longwood Road. Of these collisions, 15 involved pedestrians (18 involving pedestrians between 2005 and 2018) and 5 that involved cyclists.

The overall collision rate for this corridor is 4.70 collisions per million vehicle-kilometres. The industry standard for identifying an area of concern based on collision rate is 1.0.

In addition, a review of the 2013-2017 Network Screening results provides the following rankings for locations along Aberdeen Avenue:

- 1247 Aberdeen Avenue at Dundurn Street
- 2170 Aberdeen Avenue at Locke Street
- 741 Aberdeen Avenue at Queen Street
- 778 Aberdeen Avenue between Dundurn Street and Queen Street
- 722 Aberdeen Avenue between Longwood Road and Dundurn Street

SIDEWALKS AND PARKING

The KNA and area residents, have identified that many children walk along Aberdeen Avenue to access local area schools as well as pedestrians in general. However due to several factors such as varying sidewalk widths and speed of vehicles, it provides an uncomfortable walking experience.

In reviewing the corridor, it was found that most sidewalk widths meet standards, and some areas have a minor grass boulevard. A grass boulevard primarily exists on the north side of Aberdeen Avenue from Locke Street to MacDonald Avenue. On the south side of Aberdeen Avenue, a grass boulevard exists from Chedoke Avenue to Dundurn Street.

On the north side of Aberdeen Avenue, the parking regulations are as follows;

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- Queen Street to Dundurn Street – No Parking between 7 a.m. and 6 p.m.
- Dundurn Street to Studholme Road – No Stopping between 7 a.m. and 9 a.m.

For the south side of Aberdeen Avenue, the parking regulations are as follows;

- Studholme Road to Queen Street – No Parking Anytime

They are identified in Appendix “A”.

Report PW17021a recommends parking on both the north and south sides of Aberdeen Avenue 24 hours per day to provide a buffer between moving vehicles and pedestrians to increase safety and comfort. The permitted parking recommendations are similar to modifications implemented on Kenilworth Avenue. Permanent parking delineation features (bump-outs) were not included as part of this recommendation. This will allow staff to monitor conditions and implement restrictions on an as needed basis to address any operational concerns.

IMPACTS TO OPERATIONS

Over the years, similar modifications have been implemented as those proposed for Aberdeen Avenue. The following volume comparison utilizing Kenilworth Avenue is provided for operational context.

Kenilworth Avenue between Main Street and Central Avenue

Wednesday	29-May-19	AM Peak:	1453	PM Peak:	2009	24 HR Volume:	23633
Thursday	30-May-19	AM Peak:	1403	PM Peak:	2044	24 HR Volume:	23230
Friday	31-May-19	AM Peak:	1376	PM Peak:	1980	24 HR Volume:	25322

Aberdeen Avenue between Fairmount Avenue and Undermount Avenue

Wednesday	09-May-18	AM Peak:	1820	PM Peak:	1765	24 HR Volume:	20198
Thursday	10-May-18	AM Peak:	1779	PM Peak:	1763	24 HR Volume:	20260
Friday	11-May-18	AM Peak:	1651	PM Peak:	1593	24 HR Volume:	19367

In addition, a review of Level of Service (LOS) impacts was undertaken utilizing the before and after LOS for Kenilworth Avenue, please refer to chart in Appendix “B”.

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The Aberdeen Avenue modifications are not expected to have the same impacts on Level of Service compared to Kenilworth Avenue, as outlined in the chart in Appendix “B”.

As it relates to the impacts to Aberdeen Avenue, the following has been identified:

- No major changes expected at Studholme Road, parking will begin approximately 140 m east of Studholme Road on the south side of Aberdeen Avenue;
- The Queen Street intersection currently operates over capacity, parking will remain restricted approximately 150 m west of the intersection on both sides of Aberdeen Avenue;
- Delays will start to occur at Locke Street intersection in the westbound direction. Staff are proposing signal operation changes to mitigate and provide more green time to Aberdeen Avenue; and
- The Dundurn Street intersection will see westbound congestion in the morning. The volume to capacity ratio is 1.01 meaning this approach will be over capacity. This is partially due to added green time on Dundurn Street for the pedestrian lead phase and to accommodate the ‘No Right Turn on Red’. Staff will monitor this location and implement signal timing changes to improve operations.

The traffic analysis was based on the existing volumes and traffic flows. The two-way conversion of Queen Street will have a longer-term impact as vehicles will have alternative options to using Aberdeen Avenue to access the area and the QEW.

It should be noted that the corridor is not an Emergency Detour Route as identified in Appendix “C”.

SPEEDS

A number of concerns have been raised over the years related to vehicle speeds along Aberdeen Avenue. The following is a summary of a three-day vehicle speed study conducted at three locations along Aberdeen Avenue.

	Overall		AM Peak		PM Peak	
	85th percentile	Average	85th percentile	Average	85th percentile	Average
Eastbound	56.1	47.0	55.3	45.8	54.5	44.8
Westbound	55.7	45.0	56.2	46.1	50.2	39.9

By comparison, a review of the before and after speed data for Kenilworth Avenue showed that the conversion resulted in a 6 km/hr reduction in the 85th percentile speed and an 8-12 km/hr reduction in average speed.

SUMMARY

The purpose of Report PW17021a was to address the direction of Council and to further address the concerns of local area residents. The implementation of various countermeasures addresses these concerns and may have both positive and negative impacts. The advantages to implementing measures is that it will provide residents a more comfortable and enjoyable walking environment. The addition of a buffer through the use of parking will further provide improved safety for pedestrians, especially children, and potentially reduce the risk of pedestrian injuries. This will further be supported with a potential reduction in vehicle speeds. As vehicle speeds decline, the potential for injuries declines.

Parking will be prohibited in close proximity to intersections and transit stop areas. Staff have identified that while additional modifications can be made to signal timings to mitigate the overall corridor impacts, there will be a reduction in travel times.

In conclusion, there will be positive benefit gains in safety for residents and motorists with the implementation of countermeasures. It is recognized that there will be an impact to travel times, however the safety benefits outweigh the negative consequences to operations. Furthermore, the recommendations outlined in Report PW17021a follows the guiding principles of the various council approved plans and policies. The four recommendations utilize a safe streets/safe speeds approach to reduce injury and pedestrian collisions.

APPENDICES AND SCHEDULES ATTACHED

- Appendix “A”** – Parking Restriction Maps
- Appendix “B”** – Level of Service Comparisons
- Appendix “C”** – Emergency Detour Route Map

Current Parking Regulations on Aberdeen Avenue
Between Queen Street and Locke Street



Current Parking Regulations on Aberdeen Avenue
Between Locke Street and Dundurn Street



Current Parking Regulations on Aberdeen Avenue
Between Dundurn Street and Longwood Road



Level of Service Comparison

Kenilworth Street

Intersecting Street	Existing Conditions						Countermeasures Implemented					
	AM Peak			PM Peak			AM Peak			PM Peak		
	LOS	v/c Ratio	Queue	LOS	v/c Ratio	Queue	LOS	v/c Ratio	Queue	LOS	v/c Ratio	Queue
Main	C (EBL)	0.44	27	F(NBL)	0.88	33	E (SBL)	0.67	33	F(SBT)	1.90	252
Cannon	C (EBT)	0.28	20	C (EBT)	0.46	33	C (EBT)	0.28	20	F (SBT)	1.26	354
Brittania	C (WBT)	0.17	23	C (WBT)	0.16	20	C (WBT)	0.17	23	C (WBT)	0.16	20
Barton	C (WBT)	0.40	52	C (NBT)	0.62	83	C (NBT)	0.74	140	E (NBT)	1.01	196

Aberdeen Avenue

Intersecting Street	Existing Conditions						Countermeasures Implemented					
	AM Peak			PM Peak			AM Peak			PM Peak		
	LOS	v/c Ratio	Queue	LOS	v/c Ratio	Queue	LOS	v/c Ratio	Queue	LOS	v/c Ratio	Queue
Studholme	A (WB TH)	0.46	70	B (EB TH)	0.49	74	A (WB TH)	0.46	70	D (EB TH)	0.87	207
Dundurn	A (WB TH)	0.66	26	C (WB TH)	0.75	169	D (WB TH)	1.01	291	D (WB TH)	0.77	167
Locke	A (WB TH)	0.58	5	B (WB TH)	0.52	78	C (WB TH)	0.92	270	C (WB TH)	0.90	172
Queen	F (NBL)	1.14	307	F (NBL)	1.05	136	F (NBL)	1.14	307	F (NBL)	1.05	136

Eastbound EDR
Westbound EDR

HIGHWAY 403
Emergency Detour Route

From Aberdeen Avenue
To King Street West

APPENDIX "C"
Information Update TOM1904

