



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Transportation Operations and Maintenance Division
and
PLANNING AND ECONOMIC DEVELOPMENT DEPARTMENT
Transportation Planning and Parking Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	June 17, 2020
SUBJECT/REPORT NO:	Making Upper James Street More Pedestrian Friendly (PW20010/PED20077) (Ward 8) (Outstanding Business List Item)
WARD(S) AFFECTED:	Ward 8
PREPARED BY:	Chris King (905) 546-2424 Ext. 5421 Jeff Cornwell (905) 546-2424 Ext. 7443
SUBMITTED BY:	Edward Soldo Director, Transportation Operations & Maintenance Public Works Department
SIGNATURE:	
SUBMITTED BY:	Brian Hollingworth Director, Transportation Planning and Parking Planning and Economic Development Department
SIGNATURE:	

RECOMMENDATIONS

- (a) That the following existing traffic signal equipment on Upper James Street be decommissioned and replaced with signal equipment at new locations, to cost approximately \$500,000, subject to funding approved through the 2021 Capital Budget:
 - (i) Upper James Street at Brantdale Avenue Signal decommissioned and replaced by a full signal at Upper James Street at Brucedale Avenue;

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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.

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- (ii) Intersection Pedestrian Signal on Upper James Street at Churchill Avenue/ Duff Street be decommissioned and replaced by a full traffic signal on Upper James Street at Queensdale Avenue;
 - (iii) Upper James Street at Brantdale Avenue red light camera removed and relocated to a new location as determined and funded through the Red Light Camera program, at an estimated cost of \$25,000; and
 - (iv) Upper James Street at Brantdale Avenue red light camera removed and relocated to a new location as determined through the Red Light Camera program.
- (b) That seasonal planter boxes be installed along sections of Upper James Street north of Fennell Avenue at an estimated capital cost of \$16,000 (with an operating impact of \$6,000 per year), subject to location selection and approval of funding through the 2021 Capital and Operating Budget process;
 - (c) That Planning and Economic Development staff initiate studies to complete a functional design and associated business case for the A-Line Priority Bus Corridor and ultimate Bus Rapid Transit Corridor at a cost of \$550,000, to be funded from Project ID 5301784707, and as part of this design, consider more extensive pedestrian and streetscape improvements; and
 - (d) That the Outstanding Business List Item, Making Upper James Street More Pedestrian Friendly, be identified as completed and removed from the list.

EXECUTIVE SUMMARY

On September 14, 2016, Council passed a motion to review the Upper James Street corridor with the intent of providing recommendations to make it more pedestrian friendly, without impacting traffic flow. The initial phase focused on the area between the Niagara Escarpment and Fennell Avenue.

The traffic operations and pedestrian mobility along Upper James Street was reviewed within the Council directed limits.

Since 2016 several traffic signal additions and enhancements have been implemented, which have made the corridor more pedestrian friendly. The relocation of signals on Upper James Street, specifically moving Brantdale Avenue to Brucedale Avenue and moving Churchill Avenue/Duff Avenue to Queensdale Avenue, will enhance pedestrian accommodations by equalizing walking distances and better aligning the signalized crossings with transit stops.

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Additionally, further studies and a business case are recommended to be completed for the A-Line Priority Bus Corridor and ultimate Bus Rapid Transit Corridor. As part of these works, more extensive pedestrian and streetscape improvements will be examined and considered. It is noted that the A-Line Priority Bus Corridor was part of the City's Investing in Canada Infrastructure Program (ICIP) application and, if approved, includes additional opportunities for investments in streetscape improvements.

Alternatives for Consideration – See Page 9

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: The capital cost to implement the recommended traffic signal relocations on Upper James Street is estimated at \$500,000. The installation of seasonal planters (maximum of 20) will have a capital cost of \$16,000 plus an annual operating impact of \$6,000. These recommendations are currently unfunded and would be included in the 2021 capital budget submission for approval.

The decommissioning of the traffic signal on Upper James Street at Brantdale Avenue will require the removal and relocation of the existing red light camera equipment at a cost of \$25,000, to be funded from the corresponding reserve account (112203). This equipment will be relocated to an intersection as determined through the Red Light Camera program, pending decommissioning approval of the existing traffic signal.

The cost to complete a conceptual design for the A-Line Priority Bus Corridor is estimated at \$550,000. Funds for this are available through Project ID 5301784707 which was created for Rapid Ready & Ten Year Local Transit Strategy Implementation.

Staffing: N/A

Legal: N/A

HISTORICAL BACKGROUND

At the September 14, 2016 City Council meeting the following Notice of Motion was approved:

WHEREAS, the City of Hamilton's Master Transportation Plan states that promoting and encouraging walking through the provision of facilities and programs helps build active communities, and reduces the dependence on automobile transportation and the associated infrastructure costs, air quality, safety and congestion problems;

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WHEREAS, the City of Hamilton's Master Transportation Plan suggests that a successful Pedestrian Network Strategy should facilitate efficient, safe, and enjoyable travel for commuters and other pedestrians through expansion and improvement of the network of on-street pedestrian facilities; and, promote recreational walking and active transportation through the development of off-street facilities; and,

WHEREAS, making the city more pedestrian friendly is consistent with Hamilton's vision statement, "The best place to raise a child and age successfully".

THEREFORE BE IT RESOLVED:

- (a) That staff be directed to prepare a report to the Public Works Committee, respecting the feasibility of making Upper James Street, between the Claremont Access and Rymal Road, more pedestrian friendly without impacting traffic flow; and
- (b) That the forthcoming report, respecting a More Pedestrian Friendly Upper James Street, provide a phased-in approach with the initial phase of the study focusing on the area between the escarpment and Fennell Avenue, with the inclusion of additional pedestrian crosswalks.

To improve walkability and make it safer to cross Upper James Street the following actions have been implemented along Upper James Street:

- Signal timings modifications to maximize the amount of pedestrian crossing time available;
- A red light camera was installed at Upper James Street at Fennell Avenue for the northbound direction; and
- A crosswalk was installed on the south side of the Mountain Plaza traffic signal.

New Traffic Control Signals have been installed at the following locations:

- Upper James Street at Inverness Avenue (activated October 7, 2016);
- 1400 Upper James Street commercial plaza (activated November 25, 2016);
- Upper James Street at Chipman Avenue/Blossom Lane (activated January 15, 2020); and
- Upper James Street at Jameston Avenue (anticipated activation March 2020).

Pedestrian Countdown Signals have been installed at the following locations:

- Upper James Street at Inverness Avenue;
- Upper James Street at Jameston Avenue;
- Upper James Street at Chipman Avenue/ Blossom Lane;

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- Upper James Street at Fennell Avenue;
- Upper James Street at Mohawk Road;
- Upper James Street at Stone Church Road;
- Upper James Street at Hester Street; and
- Upper James Street at Mountain Plaza.

Durable Ladder Markings have been installed at the following locations:

- Upper James Street at Inverness Avenue;
- 1400 Upper James Street commercial plaza;
- Upper James Street at Mohawk Road
- Upper James Street at Jameston Avenue;
- Upper James Street at Chipman Avenue/Blossom Lane; and
- Upper James Street at Churchill Avenue/Duff Street

In 2020 all remaining traffic signals (except those slated for relocation) within the Council directed limits are scheduled to have ladder markings and pedestrian countdown signals installed. These enhancements align with the Hamilton's Vision Zero Action Plan for 2019-2025.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

N/A

RELEVANT CONSULTATION

Transportation Operations & Maintenance solicited comments from Hamilton Street Railway (HSR) and Transportation Planning regarding existing transit routes, stops and Transit Signal Priority (TSP) measures that can be implemented in the short-term. Of particular importance was the removal, relocation and/or condensing of transit stops to better align with controlled crossing locations as well as reduce transit travel times and improve service reliability.

The Forestry and Horticulture Section were engaged regarding the feasibility and cost implications of providing seasonal planter boxes along sections of Upper James Street north of Fennell Avenue in order to improve the pedestrian experience.

In consultation with the Ward 8 Councillor, the public was engaged and asked to provide feedback relating to the proposed traffic signal relocations via:

- Mail out surveys;
- Online surveys;
- Newspaper ad;

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- Councillor e-mail blast;
- On street signage; and
- A public meeting held on November 25, 2019 at Queensdale Elementary School.

A total of 132 survey responses were received from the public. The survey and summary of responses, as well as actions taken are found in Appendix “A” to Report PW20010/PED20077 – Summary of Survey Results.

ANALYSIS AND RATIONALE FOR RECOMMENDATIONS

Roadway Characteristics:

Upper James Street between the Claremont Access and Rymal Road is a four (4) and five (5) lane major arterial roadway with a posted speed limit of 50 km/h. Upper James Street is a full-time truck route with connections to King’s Highway 6 to the south, the Claremont Access to the north and connects to the Lincoln M. Alexander Parkway (LINC).

Upper James Street has primarily commercial land uses, with a combination of commercial and residential land uses north of Mohawk Road. There is a continuous sidewalk on both sides of the roadway. The width and the location of the sidewalk varies based on the available right-of-way. Some sections of the corridor have a curb-faced sidewalk with others having a boulevard.

Recent traffic counts indicate the Average Annual Daily traffic (AADT) along Upper James Street is between 27,000-37,000 vehicles. Approximately 25,000 vehicles on Upper James Street are destined to the LINC and approximately 20,000 vehicles exit the LINC onto Upper James Street. Based on these traffic volumes, two travel lanes per direction with auxiliary or centre left-turn lanes are required to align with the Transportation Master Plan.

The current placement of HSR transit stops along Upper James Street, north of Fennell Avenue provide convenient access to public transportation. Upper James Street has been identified as a priority corridor for HSR with the potential for traffic signal priority and physical transit priority measures to improve service. The HSR provides transit service along Upper James Street via two routes (20 A-Line Express, 27 Upper James) and also utilizes Upper James Street for routes deadheading from the Mountain Transit Centre.

Cycling Environment:

The Cycling Master Plan does not contemplate any cycling facilities to be included on Upper James Street; however, several important east-west cycling facilities cross Upper

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James Street. At present, Brantdale Avenue and Empress Avenue are identified on the City's Bike Route Map as cautionary un-signed on-street routes and together with Queensdale Avenue, provide an important east-west connection. One limitation of this east-west route is that Brantdale Avenue and Empress Avenue are off-set and there is no traffic signal at Empress Avenue.

Further south, McElroy Road and South Bend Road are also identified on the City's Bike Route Map as signed routes. These two streets are also off-set, with a traffic signal being provided at McElroy Road. South Bend Road is a more continuous cycling route, but is limited by the lack of a protected crossing at Upper James Street.

Pedestrian Collisions Patterns:

Historical pedestrian collisions over the past five (5) years were reviewed along this corridor. Appendix "B" to Report PW20010//PED20077 – Five Year Pedestrian Collision Information provides a summary of collisions that have occurred between 2014 – 2018. In total, twenty-three (23) collisions were reported during this timeframe. Thirteen (13) of these collisions occurred at or near intersections with traffic signals and ten (10) near intersections without pedestrian crossing facilities.

Ten (10) of the thirteen (13) pedestrian collisions that occurred at signalized intersections were at the Fennell Avenue or Mohawk Road intersections. In five (5) of these cases, the pedestrian that was struck was crossing without right-of-way, and the remaining five (5) collisions found the motorist at fault. There are no consistent collision patterns to be addressed; however, several pedestrian crossing enhancements have been made at these two locations. These include the addition of durable ladder markings, pedestrian countdown signals, and signal timing modifications to maximize pedestrian crossing time. In 2018 a red light camera was installed at the Upper James Street at Fennell Avenue intersection, and the reconstruction of Fennell Avenue between Upper James Street and Upper Wellington Street is tentatively planned for 2023, which will include improved pedestrian crossing facilities at Upper James Street at Fennell Avenue.

Additional Crosswalks along Upper James Street North of Fennell Avenue:

Installing additional traffic signals was assessed to provide more controlled crossing opportunities and reduce the travel time for pedestrians on Upper James Street, north of Fennell Avenue, as per the Council Motion. Installing additional signals would impact traffic flow as well as create operational/safety issues due to signals being spaced too close to each other. As a result, it is recommended to relocate two traffic signals to provide equal spacing between the signalized crossings, and to provide better HSR access as detailed below.

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Upper James Street at Churchill Avenue/Duff Street relocated to Upper James Street at Queensdale Avenue:

Queensdale Avenue has HSR transit stops on both sides of Upper James Street and also provides convenient access to Queensdale Public School. Since the 2016 traffic signal activation of Upper James Street at Inverness Avenue, the existing pedestrian signal at Churchill Avenue/ Duff Street has seen declining pedestrian crossings as more pedestrians utilize the crossings at Inverness Avenue. Located only 100 metres apart from each other, it is believed that a pedestrian crossing for Queensdale School would be more beneficial at Queensdale Avenue than at the existing Churchill Avenue/ Duff Street pedestrian signal. A full traffic signal at Queensdale Avenue would provide a more convenient crossing of Upper James Street for cyclists than the existing pedestrian signal at Churchill Avenue and Duff Street, which requires cyclists to dismount to activate the signal.

It is recommended Upper James Street at Churchill Avenue/Duff Street pedestrian signal be decommissioned and the crossing guard relocated to the proposed Queensdale Avenue intersection. Based on the public consultation responses, 77% of respondents support the relocation of this signal.

Relocation will require the removal of two parking meters on the southeast side of Queensdale Avenue, adjacent to 543 Upper James Street, and the removal of parking on the north west side of Queensdale Avenue adjacent to 538 Upper James Street. A new crossing guard is also recommended at Inverness Avenue as a result of the signal removal at Churchill/Duff Street.

Upper James Street and Brantdale Avenue relocated to Upper James Street and Brucedale Avenue:

Brucedale Avenue has HSR transit stops on both sides of Upper James Street and would be the most suitable location to install an additional traffic signal based on current pedestrian and vehicular volumes. The distance between the current traffic signals at Brantdale Avenue and Fennell Avenue (the closest southerly signalized intersection) is 320 metres.

The above recommendation to install a new traffic signal at Queensdale Avenue would result in the existing Brantdale Avenue signal being only 100 metres away. As such, it would be more beneficial to decommission the traffic signal at Brantdale Avenue and relocate the traffic signal to Brucedale Avenue. The Brantdale Avenue traffic signal was installed in 1971 and the traffic signal infrastructure will need to be reconstructed in the near future. It is expected that much of the traffic currently utilizing Brantdale Avenue will divert to one of the proposed new traffic signals located at Brucedale Avenue or at Queensdale Avenue.

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Based on the public consultation responses, 67% of respondents support the relocation of this signal.

Relocating the traffic signal will mean cyclists will need to deviate one block from the prevailing route; however, a full traffic signal at Brucedale Avenue has the advantage of providing a straight connection across Upper James Street. Additional signage throughout the neighbourhood could be provided to direct cyclists to Brucedale Avenue.

The changes at these four locations would equalize the spacing between traffic signals north of Fennell Avenue. A map of these relocations can be found attached to Report PW20010/PED20077 as Appendix “A” – Summary of Survey Results.

Coordination with Future Transit Improvements:

Upper James Street has been identified as a rapid transit corridor and forms part of the BLAST network. The A-Line bus express currently operates from downtown Hamilton to the Hamilton International Airport utilizing Upper James for the Mountain portion. The next Phase of the A-Line corridor is planned to include transit signal priority measures and queue jump lanes at key intersections (Fennell Avenue, Mohawk Road, Stone Church Road, Rymal Road and Twenty Road). As identified in the Metrolinx Regional Transportation Plan, Upper James is planned to consist of fully separated lanes for transit from the escarpment to Rymal Road, with a priority bus lane extending to the Hamilton International Airport.

As part of the consideration of this transit infrastructure, there are significant opportunities for pedestrian improvements and streetscaping. More extensive considerations for transit priority will be considered as part of the functional design and associated Business Case for the A-Line Priority Bus Corridor and ultimate Bus Rapid Transit Corridor that is being initiated by Transportation Planning.

ALTERNATIVES FOR CONSIDERATION

Committee and Council may choose to leave the current traffic signals on Upper James Street as status quo and instead only approve Recommendation D to undertake a functional design. The functional design would include signalized crossing locations and operational reviews.

Maintaining the traffic signals in their current locations does not provide equally spaced controlled crossing opportunities, and as such, does not enhance the pedestrian crossing opportunities of Upper James Street north of Fennell Avenue. Further, remaining status quo would be contrary to the positive feedback received during public consultation relating to the relocation of the traffic signals.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Community Engagement and Participation

Hamilton has an open, transparent and accessible approach to City government that engages with and empowers all citizens to be involved in their community.

Economic Prosperity and Growth

Hamilton has a prosperous and diverse local economy where people have opportunities to grow and develop.

Healthy and Safe Communities

Hamilton is a safe and supportive City where people are active, healthy, and have a high quality of life.

Built Environment and Infrastructure

Hamilton is supported by state of the art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW20010/PED20077 – Summary of Survey Results

Appendix “B” to Report PW20010/PED20077 – Five-Year Pedestrian Collision
Information 2014-2018