



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

<b>TO:</b>	Chair and Members Public Works Committee
<b>COMMITTEE DATE:</b>	June 17, 2020
<b>SUBJECT/REPORT NO:</b>	COVID-19 Recovery Phase Mobility Plan (PED20100/PW20034) (City Wide)
<b>WARD(S) AFFECTED:</b>	City Wide
<b>PREPARED BY:</b>	Brian Hollingworth (905) 546-2424 Ext. 2953
<b>SUBMITTED BY:</b>	Brian Hollingworth Director, Transportation Planning and Parking Planning and Economic Development Department
<b>SIGNATURE:</b>	
<b>SUBMITTED BY:</b>	Edward Soldo Director, Transportation Operations and Maintenance Public Works Department
<b>SIGNATURE:</b>	

**RECOMMENDATION**

- (a) That staff be directed to implement improvements to the City's existing cycling network focussed on locations that can help capture trips normally accommodated on transit but that may be lost due to transit capacity shortfalls, including;
  - (i) Implement enhanced physical separations on existing bike lanes at key locations, such as intersections, including;
    - (1) Dundurn Street (Ward 1);
    - (2) Lawrence Road (Wards 3 and 4);
    - (3) Gage Avenue (Ward 3);
    - (4) Stone Church/Paramount (Wards 6, 7, 8 and 9);
    - (5) Parkside Drive (Ward 15); and,
    - (6) other existing bike lane locations that may be identified in consultation with the Ward Councillor;

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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.

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- (ii) Implement new bike lanes or multi-use pathways in the following locations;
  - (1) Studholme Avenue (Ward 1);
  - (2) Longwood Road (Ward 1);
  - (3) Victoria Avenue between Cannon Street and Barton Street (Ward 3); and,
  - (4) Mount Albion Road (Ward 5);
- (iii) Develop a design and implementation plan and report back to the Public Works Committee for a new bike lane or multi-use pathway on King Street utilizing the north-side lane between Breadalbane Street and Locke Street (Ward 1);
- (b) In consultation with Ward Councillors on specific locations, implement temporary traffic calming measures and signage on select residential streets that have been identified in the Cycling Master Plan as signed bike routes, in order to help to reduce traffic speeds and discourage through traffic in order to improve safety of cycling in mixed traffic;
- (c) Consult with the Ward Councillor and, where applicable, Business Improvement Areas (BIAs) or adjacent businesses, to review the feasibility of temporarily removing rush hour parking restrictions in the following locations, and where appropriate, utilize the provisions of Section 8 (4) of By-law No. 01-218 pertaining to temporary parking regulations, to remove the rush hour restrictions and/or no parking restrictions in order to provide for additional on-street parking capacity and pick-up/delivery capacity to support local businesses;
  - (i) Barton Street, approximately between James Street and Ottawa Street (Wards 2 and 3);
  - (ii) John Street, approximately between King Street and Rebecca Street (Ward 2);
  - (iii) Catharine Street, approximately between Hunter Street and Main Street (Ward 2);
  - (iv) Ottawa Street, approximately between Main Street and Barton Street (Wards 3 and 4);
  - (v) Upper James North of Fennell Avenue (Ward 8); and,
  - (vi) Select locations on King Street approximately between Wellington Street and Gage Avenue (Wards 3 and 4);
- (d) Consult with the local Business Improvement Areas (BIAs) and the appropriate Ward Councillor to identify and implement the establishment of short-term pick-up and delivery zones created by re-allocating existing parking spaces in locations that will assist local businesses;

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- (e) Consult with the local Business Improvement Areas (BIAs) and the appropriate Ward Councillor to identify locations for additional, metered on-street parking spaces that will provide additional parking to assist local businesses;
- (f) Leverage existing Smart Commute employer networks to assist employers with long-term telework (or remote work) planning and return-to-work plans, taking into account, potential transportation constraints such as transit capacity;
- (g) All costs associated with the implementation of changes to on-street parking, which primarily consists of temporary signage and changes to meters, be funded from Parking Reserve No. 108021 with an upset limit of \$50,000.

### **EXECUTIVE SUMMARY**

The purpose of this Report is to outline strategies to respond to expected changes in mobility patterns as a result of COVID-19. An initial list of strategies and actions is recommended to respond to these needs. The overall objective of these mobility strategies is to ensure that transportation capacity is allocated appropriately in order to support residents and businesses during the recovery period while adhering to public health guidelines.

Most significantly, staff are anticipating the following changes to mobility patterns, which the City will need to plan for, and which this Report is intended to respond to:

- Overall reduction in trip demand across all modes;
- Capacity limitations in transit;
- Capacity limitations and reduced demand for taxis, shared vehicles and Personal Transportation Providers (e.g. Lyft, Uber);
- Loss of “choice trip” riders from transit; and,
- Competing demands for on-street parking and pick-up/delivery spaces in commercial areas.

While the timing and details of the re-opening of businesses, services and workplaces are evolving, an effect of a staged opening of businesses and services is that there is likely to be a misalignment between transportation demand and transportation capacity and needs, as compared to pre-COVID conditions. Most significantly, because of physical distancing, Hamilton Street Railway (HSR) bus passenger loading capacity will be lower, and ridership is expected to remain below normal levels as traditional customers may be reluctant to return to transit in the early stages of the post-COVID recovery.

While it is likely that there will be short-term reductions in commuter travel across all modes, if people adopt work-from-home practices on a more regular basis, there is also

a potential for people to gravitate towards more single occupant vehicle trips, either because of the perceived risks of travelling on transit or in carpools, or the reduced capacity of transit to accommodate peak period trips. If no actions are taken to respond to this anticipated change, it may place additional traffic demands on certain corridors, for example around major offices and post-secondary institutions. It may also represent a significant setback in Council's long-standing goal of reducing the percentage of overall trips happening in single occupant vehicles.

A key objective of this Mobility Plan is, to ensure that as many trips as possible are made using sustainable transportation modes, consistent with the goals of the City-wide Transportation Master Plan (TMP), while focussing on measures already identified and anticipated in the City's existing TMP and Cycling Master Plan.

### **Alternatives for Consideration – See Page 13**

### **FINANCIAL – STAFFING – LEGAL IMPLICATIONS**

**Financial:** Implementation of parking related changes will involve costs for additional signage and potentially pavement marking modifications. Costs are estimated to be well below \$50,000, and, there are sufficient funds in Parking Reserve No.108021 to cover the costs.

No additional funding is being sought for the recommended changes to cycling infrastructure. Funds are available through the following approved capital accounts: Capital Project Nos: 4032017050 - Bicycle Infrastructure Upgrades (\$130,000), 4032017053 - Bicycle Boulevard (Neighbourhood Greenways) Program (\$130,000); and Ward Reserve Accounts 4661717124/4031755820 Ward 3 Reserve Cycling projects (\$320,000).

**Staffing:** N/A

**Legal:** N/A

### **HISTORICAL BACKGROUND**

On March 17, 2020, the Province of Ontario declared a State of Emergency, and since that time, has introduced a number of measures in response to the COVID-19 crisis including workplace closures and by-laws to ensure physical distancing. Among many impacts, this has had an unprecedented impact on travel activity, with the City seeing the elimination of rush hour traffic levels and substantially lower off-peak traffic volumes.

Throughout March, the City of Hamilton's Emergency Operations Centre (EOC) also put in place several measures that impacted mobility. These were mostly to support

physical distancing, but some were also related to changes in work patterns and to support businesses. Changes that impacted mobility patterns included:

- Implementing workplace closures for non-essential City employees;
- Requirement for bus passengers to enter and exit through the rear doors;
- Eliminating requirement for fare payment on HSR (to facilitate rear-door boarding);
- Restricting customer loads to ten people on a 40-foot bus; and 15 people on a 60-foot articulated bus;
- Suspending enforcement of payment at parking meters and municipal Car Parks;
- Changes to traffic signals to automate pedestrian crossing buttons; and,
- Closure of parking lots for some parks and recreation areas.

On April 27, 2020, the Province of Ontario released a plan for reopening the Province. The framework is structured around three phases: Phase 1) Protect and Recover, Phase 2) Restart, and Phase 3) Recover. This re-opening plan continues to evolve and be updated.

On May 27, 2020, the report entitled Hamilton Reopens: A Roadmap to Our New Reality (HSC20019) (City Wide) was presented to Committee of the Whole. The Hamilton Reopens roadmap includes three overarching phases, each aligning generally with the Province of Ontario's Reopening Framework. In the Re-opening Plan, "Mobility" was one of seven areas identified as requiring extra consideration, attention, and problem-solving as part of the continued response to the COVID-19 emergency and plan the new reality.

## **POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS**

Changes to roadways are subject to the Municipal Class Environmental Assessment (EA) Process. All of the projects identified in the Recommendations in this Report, would fall under Schedule 'A' or 'A+'. Schedule 'A' projects include normal or emergency operational and maintenance activities. These projects are limited in scale and have minimal adverse environmental effects, which are predictable and easily mitigated. These projects are pre-approved and may proceed to implementation without following the full Class EA planning process. Schedule 'A+' projects are pre-approved under the Municipal Class EA but allow for some form of public consultation prior to project implementation. The purpose of Schedule 'A+' is to ensure that the public is in some way informed of municipal infrastructure project(s) being constructed or implemented in their area, giving them the opportunity to comment. Given that these projects are pre-approved, there is no appeal to the Ministry of the Environment Conservation and Parks (MOECP) on these projects.

## **RELEVANT CONSULTATION**

Several stakeholders were consulted as part of the development of the strategies and actions in this report including:

- Public Health Services;
- Transportation Operations and Maintenance;
- Engineering Services;
- Risk Management;
- Hamilton Street Railway; and,
- Emergency Services.

In addition, staff from Transportation Planning, Transportation Operations and Maintenance, and Transit, have also participated in various webinars hosted by national organizations around COVID-19 and transportation. Such organizations include:

- Canadian Urban Transit Association (CUTA);
- Canadian Parking Association (CPA);
- Transportation Association of Canada (TAC);
- National Association of City Transportation Officials (NACTO);
- North American Bike Sharing Association (NABSA); and,
- Share the Road Ontario.

The Recommendations contained in this Report draw on best practices emerging from those professional organizations, and which, have already been instituted in many cities across North America and around the world.

## **ANALYSIS AND RATIONALE FOR RECOMMENDATION(S)**

### **Observed Changes in Mobility**

The COVID-19 Emergency Declaration has changed travel patterns and mobility choices in the City in a drastic way.

- Based on data from Google for Ontario, mobility related to workplaces declined by 62% compared to normal, mobility for retail and recreation by 56%, and grocery and pharmacy by 23%; (Source: Google COVID Mobility Reports for April 2020);
- In March and April, HSR experienced a 77% decline in customer demand and saw capacity challenges on several routes due to the restrictions on passenger loading standards (HSR is restricting customer loads to ten people on a 40-foot bus; and 15 people on a 60-foot articulated bus);

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- Cycling ridership measured at permanent count stations has remained relatively stable as compared to the same time last year. It is expected that a drop in cycling trips by commuters has been off-set by an increase in cycling for recreation and exercise purposes;
- Demand for SoBi bikeshare in March and April was lower compared to the same period last year, but declines have not been as significant as other modes. There were 22,000 trips made in March and April 2020 vs. 36,500 trips in 2019 (40% decline). Over 600 new memberships were issued throughout March, April and May, suggesting some individuals are anticipating an increased reliance on cycling for some trips; and,
- Parking demand has declined drastically, with the Convention Centre Garage, and York Parkade, seeing a 95% reduction in parking demand. On-street parking in commercial areas is estimated to have dropped by 70%-80% but has recently increased as some stores re-open and people take advantage of free 30-minute parking.

Overall, it can be concluded that there has been a substantial decline in vehicular and transit trips, and a modest decline for cycling trips.

### **Global Responses to Mobility Changes**

Cities, governments and transportation agencies around the world are responding to the mobility changes resulting from COVID. Responses generally fall into two categories:

- Rapid responses, including temporary short-term changes needed as a result of emergency declarations and physical distancing orders; and,
- Transformational responses that consider the likely changes in transportation needs and preferences over the medium to longer-term.

Rapid responses deployed by other jurisdictions have included:

- Changes to the operation of transportation systems to keep essential workers safe, such as rear door boarding on buses;
- Deployment of infrastructure to support work at home;
- Reconfiguring streets and parking to facilitate curb-side pick-up and delivery;
- Temporary street or lane closures;
- Measures to provide relief for crowded areas or corridors such as sidewalk extensions; and,
- Re-purposing parking or travel lanes to support physical distancing, improve business access, or create areas for physical exercise.

Some jurisdictions have also started to implement changes to transportation systems in anticipation of longer-term needs. Examples include, expanding sidewalks in busy areas, expanding cycling infrastructure, and, implementing measures to slow traffic on local streets and make them more suitable for walking and cycling.

Cities are also looking at ways to support the recovery of transit, address what could be an increased propensity for private vehicle use and looking at ways to make transportation more equitable and accessible.

### **Needs Analysis for Hamilton**

As restrictions begin to be lifted, it is unclear how people will change their mobility choices. One potential scenario is that people take advantage of low fuel prices and less congested streets in the short-term and gravitate towards more single occupant vehicle use. Another scenario is that people take up walking and cycling in greater numbers due to the health and physical distancing benefits.

Under any scenario, it is expected that transit will have a lower carrying capacity due to regulated or new social adopted norms for physical distancing. During the emergency declaration, HSR restricted customer loads to ten people on a 40-foot bus; and 15 people on a 60-foot articulated bus, which represents 30% of typical seated capacity and 24% of previous standing capacity. It is likely that some capacity restrictions will carry into the near term. Therefore, when transit demand starts to return, HSR will be increasingly challenged to provide enough capacity, or will need to deploy more vehicles to meet demands. The routes that are expected to be most impacted are: Route 1 (King), Route 2 (Barton), Route 5 (Delaware), Route 10 (B-Line Express), and Route 27 (Upper James).

Another challenge for Hamilton is that even a small shift in trips from transit to private vehicles could result in higher levels of congestion than existing prior to COVID. Escarpment access roads and other pinch points such as travel across Highway 403 are particularly vulnerable to even small increases in traffic levels.

Prior to COVID, approximately 8% of trips by Hamilton residents were made using HSR or GO transit. Considering the target transit mode share is 12% by 2031, a regression in mode shares could fundamentally change infrastructure needs previously identified to accommodate growth.

On a typical day, there are approximately 17,000 trips made using HSR in the morning peak period, or about 6,500 in the peak hour. A large majority of these trips pass through constrained corridors through Downtown and pinch points. Given that a typical urban vehicle lane can handle 600 - 800 cars per hour, the potential of a small shift from transit to private vehicles could have a large impact on congestion levels.

Based on the emerging best practices and consideration of local context, key mobility needs identified for Hamilton's recovery period will include:

- Safety improvements to the existing cycling network to attract new riders and make cycling accessible for more people;
- Re-prioritizing curbside space to address competing needs for pick-up and drop-off, parking to support businesses, and pedestrian movement; and,
- Maintaining intensifying Travel Demand Management (TDM) programs including workplace programs.

### **Cycling Strategies**

Many cities throughout North America are predicting an increase in cycling usage through the recovery period. Year to year comparisons of cycling data suggest this may be the case for Hamilton, especially with the on-set of warmer weather. Increases in cycling could help off-set capacity challenges for transit. It could also capture trips on an interim basis, that could revert back to transit in the future, rather than permanently losing these trips to auto modes. In Hamilton, over one-third (approximately 35%) of all commuter trips are 5 kms or less in distance, which is a comfortable distance to cycle. However, cycling represents less than 5% of the trips in this distance range, suggesting a large potential to shift short trips to cycling.

Fortunately, for Hamilton, the City has already adopted a comprehensive Cycling Master Plan for the City. This Plan already identifies key corridors in the cycling network. Therefore, unlike what some other cities may be experiencing, there is less need in Hamilton to identify new, temporary cycling corridors. Rather, the existing planned network can be relied upon. The challenge for Hamilton is to make this existing network more attractive to new cyclists, and therefore, the focus of the actions outlined in this Mobility Plan are for enhanced safety measures on the existing network.

The Cycling Master Plan is based on a minimum grid approach, and already identifies projects to create a more complete and comfortable cycling network.

A number of cycling initiatives are already programmed for implementation in 2020, including the Claremont Access, Hunter Street at the GO Station, Locke Street between George Street and King Street, York Boulevard, Victoria Avenue, Creighton Road from Governor's Road to Market Street, and, Cannon Street from Sherman Avenue to Tim Horton's Field.

### **Enhanced Safety Separations for Existing Bike Lanes**

Several additional improvements are possible to improve the safety and user comfort of the City's cycling network, without needing to reallocate space from vehicles or transit.

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Specifically, this would involve the addition of physical separation, such as curbs and bumpers, similar to what currently exists on Bay, Cannon, John, and Locke Streets. Photos of these applications are provided in Appendix “A” attached to this Report.

Several existing painted bike lanes are potential candidates for enhanced physical separations, given their potential to capture transit trips that may be lost on the City’s busiest transit corridors. Priority has been given to existing painted bike lanes that have the potential to capture transit riders lost from the routes that are expected to be most heavily impacted: Route 1 (King), Route 2 (Barton), Route 5 (Delaware), Route 10 (B-Line Express), and Route 27 (Upper James), as well as, near key trip generators such as schools.

Enhanced physical separations already planned in 2020 include, York Boulevard, Cannon Street, Hunter Street, and Bay Street.

The following additional locations are recommended in this plan for implementation in 2020 as part of improving the safety and attractiveness of the cycling network. Specific locations along these corridors, for additional physical separations, would be identified in consultation with the Ward Councillor and the City’s Traffic Staff, and would generally be focussed on key locations such as intersections where vehicle/cyclist interactions are increased:

- Dundurn Street (Ward 1);
- Lawrence Road (Wards 3 and 4);
- Gage Avenue (Ward 3);
- Stone Church Road/Paramount Avenue (Wards 6, 7, 8 and 9); and,
- Parkside Drive (Ward 15).

The general approach would be to install concrete or rubber curbs at intersections where feasible, and along linear segments where there is sufficient space and emergency access, transit, and resident/business access are not impacted. In total, with the available budget, approximately 5 – 7 kms of bike lanes will be retrofitted with new or upgraded physical separations.

The enhanced safety measures identified above would not result in any reductions in vehicular lane capacity or parking capacity, as they are already in place as painted bike lanes.

### **New Bike Lanes**

A few locations for new bike lanes have been identified that would provide for critical links in the cycling network:

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- Studholme Avenue providing a link to the Rail Trail (Ward 1);
- Longwood Road from Frid Street to King Street connecting the existing cycle track that terminates at Frid Street with King Street (Ward 1);
- Victoria Avenue between Cannon Street and Barton Street (Ward 3); and,
- Mount Albion Road between the Red Hill Valley Trail and Greenhill Avenue (Ward 5).

These routes will require some engineering work to develop designs but are generally considered feasible.

In addition to upgrades to the above bike lanes, King Street, east of Highway 403, has long been identified as a gap in the cycling network and a location where there is a high existing and potential demand for cycling. This gap could be addressed by extending the existing bi-directional bike lane from the current termination at Breadalbane Street to Locke Street. This would require the conversion of the fifth lane in this location and would result in a consistent four lane cross-section for King Street from the downtown core to Highway 403 (currently King Street widens to five lanes at Locke Street). Given the complexity of this location, staff will report back to Council with recommendations on a design.

### **Temporary Traffic Calming**

Consistent with approaches being taken in other cities, there is also a recognition that local streets can take on a much greater role for cycling trips with minor improvements. The use of small-scale, temporary measures, such as traffic calming and signage, could improve conditions for cyclists and pedestrians on residential streets with lower traffic volume and potential for lower speed.

The Cycling Master Plan identifies a number of residential streets as signed, on-street bike routes or bicycle boulevards. These routes are intended to give cyclists a safe route while operating in mixed traffic, using lower volume residential streets.

Many of these routes are already signed, using signage such as those outlined in Appendix “A” attached to this Report.

They often provide critical links in the cycling network, where opportunities are limited using the arterial network. They also provide “first mile/last mile” connections between the core cycling network and key destinations, particularly schools.

Many cities are utilizing temporary traffic calming measures as part of their COVID recovery strategies to improve safety and attractiveness of these streets, not just for cyclists, but for pedestrians as well. The temporary measures do not prohibit vehicular use. Rather, they seek to slow traffic and restrict “through traffic”, in order to improve

real and perceived safety of pedestrians and cyclists. In other cities, these have been referred to as “Safe Streets” or “Quiet Streets”.

Temporary traffic calming measures such as these would be consistent with the recommendations of the Cycling Master Plan for the creation of a network of “bicycle boulevards” utilizing residential streets that represent critical links in the cycling network. These projects would not supersede other traffic calming initiatives already underway or planned.

### **Parking and Curb-side Strategies**

Needs for parking and curb-side space have changed significantly and are expected to be different during the recovery period. The key expected change is the demand for more short-term pick-up and drop-off space for uses such as restaurants. An expected higher mode share and shift to auto use could also increase demand for on-street parking.

Several measures are anticipated to be needed to maximize the efficiency of parking and curb-side space:

- Removal of peak period parking restrictions that may not be required for traffic flow and do not affect transit or emergency access, but could serve to enhance temporary on-street parking options for businesses; and,
- Creation of short-term pick-up and drop-off spaces for couriers, food delivery drivers and other vehicles that support businesses. These zones may require reallocation of metered parking spaces, so it is recommended that input from BIAs will be required to help inform trade-offs.

### **Travel Demand Management Strategies**

The Smart Commute Program (SCP) has been operating in Hamilton since 2004. The SCP provides tools and programs to assist employers and commuters in adopting different commute choices like carpooling, cycling and transit. The focus of the SCP has been on workplace commuter and school travel planning initiatives.

The SCP and associated local networks is ideally suited to helping employers deal with changes to mobility needs, with the goal of helping to manage travel demands throughout the recovery period to help deal with inconsistencies between demands and mode capacities. For example, spreading transit trips across a longer duration in the morning and afternoon rush periods to help with capacity shortfalls could be achieved by staggering start times for major employers. There is also an opportunity to leverage gains made in tele-working to help mitigate potential increases in auto trips to major employment areas.

The City of Hamilton is well positioned to maximize and customize TDM strategies utilizing the existing Smart Commute network and associated tools, complemented by the launch of new on-line ride matching and survey tools in June 2020. An employer survey is also planned to seek feedback on experience of working during COVID and insights on future needs.

## **ALTERNATIVES FOR CONSIDERATION**

Council could take no action with respect to the Mobility Plan and Recommendations (a) through (g), or Council could adopt just one or more of these Recommendations.

## **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.

### **Clean and Green**

Hamilton is environmentally sustainable with a healthy balance of natural and urban spaces.

### **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” – Precedent Photos

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