SUBJECT: Downtown Dundas Transportation Master Plan
Class Environmental Assessment (PW09095) - (Ward 13)

RECOMMENDATION:

(a) That the Downtown Dundas Transportation Master Plan (DDTMP) be endorsed and the General Manager, Public Works be authorized and directed to file the DDTMP, as per the Municipal Class Environmental Assessment (October 2007), on the public record with the City Clerk for a minimum 60-day public review;

(b) That upon the completion of the 60-day public review, the General Manager, Public Works be authorized and directed to program and include the recommended projects (as shown in Appendix B, Recommended Intersection Improvements and Roadway Improvements), in the Downtown Dundas Transportation Master Plan in the capital budget for future years, provided that no comments or bump-ups are received or Part 2 ordered.

Gerry Davis, CMA
General Manager
Public Works Department

EXECUTIVE SUMMARY:
The purpose of the Downtown Dundas Transportation Master Plan (DDTMP) is to develop recommendations to the existing transportation network until the 2031 horizon year. The Master Plan report presents the analysis and evaluations undertaken to determine the transportation system required to support Downtown Dundas (Appendix
A study area map and table, illustrating the preferred alternatives, are available in Appendix B, Recommended Intersection Improvements and Roadway Improvements.

The Class Environmental Assessment process has been followed for the DDTMP Study. The study has been carried out according to the guidelines set out in A.2.7 Master Plans of the Municipal Engineers Association Class Environmental Assessment.

The projects listed below are recommended for design and implementation as soon as budget allows. Full details of the recommendations can be found in Appendix C.

**Intersection and Roadway Improvements**

- Governor’s Road/Ogilvie Street Operational Improvements
- Governor’s Road/Ogilvie Street Safety Improvements
- Governor’s Road/Main Street/Osler Drive Intersection Operations and Safety Improvements
- Hatt Street/Market Street Intersection
- Hatt Street/Ogilvie Street Intersection
- King Street/Ogilvie Street Intersection
- Hatt Street/Memorial Square Intersection
- Hatt Street Traffic Calming Study (between Market Street and Ogilvie Street)
- Creekside Drive Traffic Calming Study (between Hatt Street and Ogilvie Street)

**Transit Facility Improvements**

- Ensure appropriate transit shelters and passenger amenities/information at highly used stops, the connection to the B-Line service at University Plaza
- Investigate developing a multi-modal facility in Dundas just outside the Downtown area and extend the B-line service to this facility
- Implement a zone bus service to replace conventional fixed route transit. Provide connection to B-line service at University Plaza

**Cycling Facility Improvements**

- Provide improved signing and information for the existing cycling
- Extend on-street cycling facilities along Governor’s Road/Dundas Street
- Carry out low cost improvements for more access points to off-street cycling facilities throughout Dundas
- Implement cycling facility improvements per direction in the City-wide Cycling Master Plan update:
  - King Street West: cycling lanes from Market Street to Bond Street
  - Market Street: cycling lanes from Governor’s Road to King Street West
  - Hatt Street: cycling lanes from Market Street to Main Street
  - Sydenham Street/Memorial Square: cycling lanes from Hatt Street to Romar Drive
  - Main Street/Osler Drive: cycling lanes from King Street to Main Street West
  - Ogilvie Street: cycling lanes from Hatt Street to the multi-use trail south of Dundana Avenue
  - York Street: cycling lanes from King Street East to Olympic Drive
  - Governor’s Road: cycling lanes from Cootes Drive to Binkley Road
- Provide accessible, secure and protected bicycle parking areas in Downtown Dundas.
Pedestrian and Trail Facility Improvements

- Reprioritize the Hamilton Trails Master Plan to move up Spencer Creek Trail improvements from Phase 3 to an earlier phase
- Continue implementation of the remainder of the Hamilton Trails Master Plan on current schedule
- Install delineated pedestrian crossings (unsignalized marked and/or raised/signalized marked) where warranted
- Install curb extensions along streets currently allowing on-street parking to help manage conflict between vehicular and pedestrian traffic modes
- Improve existing pedestrian crossings at intersections (timing/phasing adjustments and/or improved delineation and/or improve accessibility for persons with disabilities)
- Improve pedestrian sidewalk linkages and/or widen sidewalks as part of the City Capital Improvement Program (short- to long-term improvements)
- Undertake a traffic calming study for Hatt Street and Creekside Drive (see Intersection and Roadway Improvements)

BACKGROUND:

The information/recommendations contained within this Report primarily affect Ward 13. In 2005, the City of Hamilton prepared the Hatt Street Urban Design Study which considered revitalization and strategic implementation strategies to guide future development of the Hatt Street area in central Dundas. With key principles for place-making and revitalization in mind, the study emphasized a focus on strengthening pedestrian connections/accessibility and catalytic/incremental implementation. Council adopted the staff recommendation and directed Public Works to undertake a Transportation Master Plan for the Downtown Dundas area, subject to review during the City-wide Transportation Master Plan.

The City-wide Transportation Master Plan was completed in May 2007. This Master Plan identified targeted improvements to the transportation network across Hamilton over the next 30 years. The plan reviewed the existing and planned transportation network, including roads, transit, cycling and walking facilities, public parking and the City’s connections to marine, rail and aviation facilities. The City-wide TMP was developed to address the transportation requirements for future growth based on different alternatives of the growth options outlined in the City’s long-range strategic planning study (GRIDS).

In 2009, the City of Hamilton completed a Class Environmental Assessment (EA) study for Governor’s Road Intersection Improvements. The Project Environmental Report (PW09061) for Governors Road was endorsed by Public Works Committee on June 15, 2009 and Council on June 24, 2009. The Project Environmental Report recommended the preferred alternative to construct a roundabout at the intersection of Governor’s Road and Davidson Boulevard. It was filed on public record for 30 days and no comments were received that could not be addressed. The preferred solution was selected because it:

- Resolves the problem of vehicle delays and traffic build-up during peak hours
- Provides the greatest impact for lowering speeds on Governor’s Road in the corridor
- Greatly improves the overall safety within the study area
▪ Reduces vehicle emissions
▪ Increases intersection capacity
▪ Provides opportunity for improved aesthetics (i.e. a gateway feature)

The majority of public comments received were from nearby residents of the study area and were in favour of the roundabout.

The City of Hamilton is undertaking the Master Planning process for the Downtown Dundas area to develop recommendations for changes to the transportation network until the 2031 horizon year. The Master Plan process involves the following steps with public consultation occurring throughout the study process:

1. Identify Problems/Opportunities;
2. Identify Alternative Solutions to Problems/Opportunities;
3. Identify and Evaluate Impact of Alternative Solutions;
4. Select Preferred Solutions; and,
5. Documentation in the form of a Transportation Master Plan

The Master Plan would provide the basis for future investigations for the specific Schedule C projects identified within it. Schedule C projects would have to fulfil Phases 3 and 4 of the Municipal Class EA process prior to filing the Environmental Study Report.

The following intersection and roadway projects are recommended as part of the TMP findings:

**Governor’s Road/Ogilvie Street Operational Improvements**
▪ Widen Governor’s Road by adding one additional westbound through lane plus one additional eastbound through lane.
▪ Change the lane configuration of the southbound approach to feature an exclusive left turn lane with 15 metres of storage plus a shared through/right turn lane.
▪ Modify the pavement markings on the northbound approach (Ogilvie Street) to better delineate the commencement of the northbound right turn lane.
▪ Add a northbound (protected/permissive) left turn phase.

**Governor’s Road/Ogilvie Street Safety Improvements**
▪ Optimize the existing signal timings and provide for an extended pedestrian clearance and/or pedestrian countdown indicator and/or a leading pedestrian interval phase.

**Governor’s Road/Main Street/Osler Drive Intersection Operations and Safety Improvements**
▪ Provide exclusive northbound and southbound left turn lanes by widening Main Street and Osler Drive to a 5-lane cross-section.
▪ Optimize signal phasing/timing plans.

**Hatt Street/Market Street Intersection**
▪ Add westbound and eastbound left turn auxiliary lane with 15 metre storage bays.

**Hatt Street/Ogilvie Street Intersection**
▪ Adjust signal phasing/timing parameters to provide adequate walking time for all pedestrians (i.e. seniors).
King Street/Ogilvie Street Intersection
- Adjust signal phasing/timing parameters to provide optimal intersection operations while providing adequate walking time for pedestrians.

Hatt Street/Memorial Square Intersection
- Monitor transportation operations to determine if improvements are warranted in the future to address capacity shortfalls for the southbound approach.

Hatt Street Traffic Calming Study (between Market Street and Ogilvie Street)
- Undertake a traffic calming study to reduce vehicle speeds and provide additional pedestrian crossing locations (if warranted).

Creekside Drive Traffic Calming Study (between Hatt Street and Ogilvie Street)
- Undertake a traffic calming study to reduce vehicle speeds and provide additional pedestrian crossing locations (if warranted).

**ANALYSIS/RATIONALE:**

The overall objectives of the DDTMP included the following:

- Satisfy Phases 1 and 2 of the Municipal Class Environmental Assessment process;
- Identify potential problems or opportunities and related alternative solutions to transportation issues to the 2021 and 2031 time horizons;
- Identify mobility needs for people and goods that respond to the community’s values and perspectives;
- Determine realistic targets for modal splits while encouraging transit use and active transportation (cycling and pedestrian) modes;
- Integrate current City policies, programs, funding and infrastructure needs; and
- Identify alternative transportation solutions and infrastructure improvements for both the short and long term.

The current transportation system within the Dundas Community will experience delays at a number of locations as a result of the travel demand growth anticipated by 2031.

The following section outlines all the identified problems/opportunities within the DDTMP Study area and the recommended alternatives and rationale.

**1. Governor’s Road/Ogilvie Street Intersection Operations**

**Recommendations:**

- Widen Governor’s Road to a four (4) lane cross-section by adding one (1) westbound and one (1) eastbound through lane.
- Add a northbound (protected/permissive) left turn phase.
- Change the lane configuration for the southbound approach to one (1) southbound left turn with 15 metres of storage, and one (1) southbound shared through/right lane.
- Modify the pavement markings on the northbound approach (Ogilvie Street) to better delineate the commencement of the northbound right turn lane.
Implications:
- Additional pavement will moderately increase stormwater runoff.
- There is a potential for Spencer Creek to be impacted during construction, however, mitigation measures can be incorporated in detail design. The ESA southeast of the intersection will not be impacted.
- Will require additional property to accommodate potential structure and roadway widening.
- May have higher degree of construction disruptions with the replacement or widening of the existing structures on the east leg of the intersection.
- May have greater impact to area residences and businesses during construction.
- Would better support other modes with wider road platform.
- Compatible with other City plans, and improvements are feasible for implementation in the long-term.
- Estimated cost $2,280,000 (not including land acquisition).

2. Governor’s Road/Main Street/Osler Drive Intersection Operations and Safety Improvement

Recommendations:
- Add exclusive northbound and southbound left turn lanes by widening Main Street and Osler Drive to a 5-lane cross-section.
- Optimize signal timings.

Implications:
- There are minimal land impacts. Lands surrounding the intersection are highly urbanized and there are no natural heritage areas close to intersection.
- Additional pavement will moderately increase stormwater runoff.
- Widening of roadway would impact area businesses in terms of temporary access requirements/delays during construction.
- Transportation efficiency would improve with no critical movements noted under 2021 and 2031 horizon years.
- Intersection safety is improved with dedicated turning lanes in the northbound and southbound directions.
- Could better support other modes of transportation with wider road platform, however, additional property would be required to accommodate pedestrian facilities.
- Compatible with future improvements and can be easily implemented.
- Estimated costs of $230,000.

3. Hatt Street/Market Street Intersection Operations

Recommendations:
- Provide a westbound left turn auxiliary lane with a 15 metre storage bay (warranted).
- Provide an eastbound left turn auxiliary lane with a 15 metre storage bay to offset intersection geometry.

Implications:
- No land impacts - lands surrounding the intersection are highly urbanized and there are no natural heritage areas close to the intersection. The addition of a left turn
lane may result in the removal of roadside grasses and landscaped shrubs. Impacts will be very minimal and can be mitigated by requiring any shrubs impacted be replaced.
- Loss of 2 to 3 parking stalls at community centre.
- Minimal impacts related to construction disruption.
- Minimal impacts to residences/businesses.
- Addition of left turn lane provides for improved transportation services with no critical movements noted for the 2021 and 2031 time horizons.
- Utilizes existing infrastructure.
- Loss of 4 to 6 on-street parking stalls.
- Compatible with future City improvements and can easily be implemented.
- Estimated Cost: $40,000 (not including land acquisition costs); partial cost included within the Development Charge Study.

4. Hatt Street/Memorial Drive Intersection Operations

Recommendation:
- Monitor transportation conditions/operations to determine if improvements are warranted in the future to address capacity shortfalls for the southbound approach.

Implications:
- Low growth LOS targets are achieved.
- Does not address LOS targets for the high growth scenario.
- Consistent with City plans.
- Low cost alternative.

5. Hatt Street Excessive Speeds and Insufficient Pedestrian Crossings (Various Locations)

Recommendation:
- Undertake traffic calming study to develop a strategy to reduce traffic speeds and provide additional pedestrian crossing locations. The study will supplement and utilize the findings from the Hatt Street Urban Design Study.

Implications:
- Holistic solution for Hatt Street is required.
- Consistent with City plans.
- Lower cost alternative.

6. Governor’s Road/Ogilvie Street Intersection Pedestrian Safety

Recommendation:
- Adjust signal timings to provide for an extended pedestrian clearance interval and/or pedestrian countdown signal, and/or a leading pedestrian interval phase (Signal timing adjustments are short-term improvements and will be reviewed by City of Hamilton Traffic Engineering and Operations).

Implications:
- Supports improvements of pedestrian movements and safety by improving walking times to accommodate a wider range of pedestrians, including the elderly.
- Compatible with future City improvements and can be easily implemented.
- Low cost improvement.

7. Hatt Street/Ogilvie Street Intersection Pedestrian Study

Recommendation:
- Adjust signal timings to provide adequate walking time for pedestrians. (Signal timing adjustments are short-term improvements and will be reviewed by City of Hamilton Traffic Engineering and Operations).

Implications:
- Supports improvements of pedestrian movements and safety by improving walking times to accommodate a wider range of pedestrians, including the elderly.
- Compatible with future City improvements and can easily be implemented.
- Low cost improvement.

8. King Street/Ogilvie Intersection Operations and Pedestrian Safety

Recommendation:
- Adjust signal timings to provide optimal operations and adequate walking time for pedestrians (signal timing adjustments are short-term improvements and will be reviewed by City of Hamilton Traffic Engineering and Operations).

Implications:
- Supports improvements of pedestrian movements by improving walking times to accommodate a wider range of pedestrians, including the elderly.
- Improves intersection operations.
- Compatible with future City improvements and can be easily implemented.
- Low cost improvement.

9. Creekside Drive Traffic Infiltration and Safety (Hatt Street to Ogilvie Street)

Recommendation:
- Undertake a traffic calming study and develop a strategy to reduce traffic infiltration and improve safety.

Implications:
- Holistic solution for Creekside Drive is required.
- Consistent with City Plans.
- Lower cost alternative (recommendations from study could range from low to moderate capital cost.

ALTERNATIVES FOR CONSIDERATION:

There is one alternative for Council to consider with respect to the recommendations of this report:

1. To not file the Downtown Dundas Transportation Master Plan on public record for a minimum of 60 day review period.

The outcome of this would result in not implementing any of the suggested transportation improvements and therefore not resolve any of the existing traffic and safety issues that currently exist in Downtown Dundas.
Financial

The Traffic calming study for Hatt Street is subject to capital budget process approval (submitted for 2011).

The Traffic calming study for Creekside Drive is subject to capital budget process approval (submitted for 2010).

The Governor's Road Class EA Schedule C study is subject to capital budget process approval (EA tentatively scheduled for 2012).

Staffing

N/A

Legal

Municipal undertakings such as road improvements and water and wastewater projects are subject to Ontario’s Environmental Assessment Act. The Act allows for the approval of Class Environmental Assessments and the municipality has the option of following the planning process set out in the Municipal Engineers Association Class Environmental Assessment (October 2000, as amended in 2007). A review of all outstanding projects is required every 10 years for those Master Plans that are endorsed after September 2007.

Projects are categorized according to their environmental significance and their effects on the surrounding environment. Planning methodologies are described within the Class EA and are different according to Class type: Schedule A projects are projects that involve minor modifications to existing facilities. The environmental effects of these projects are minimal and the projects are, therefore, considered pre-approved. Schedule A+ Projects are projects that also generally involve minor modifications to existing facilities and are considered to be pre-approved but a municipality is required to notify the public prior to project implementation. There are various Schedule A and A+ projects as a result of the DDTMP, see Appendix B.

Schedule B Projects are projects that involve minor expansion to existing facilities. As there is some potential for adverse environmental effects, these projects are required to proceed through a screening process including public consultation. There are no Schedule B Projects being recommended as part of the DDTMP.

Schedule C Projects are projects that involve the construction of new facilities and/or major expansions to existing facilities. These projects must pass through the entire EA planning process outlined in the Class EA. Such projects have the potential for significant environmental effects and must proceed under the full planning and documentation procedures specified in this Class EA document. Schedule C projects require that an Environmental Study Report (ESR) be prepared and submitted to the Ministry of the Environment for review by the public. If concerns are raised that cannot be resolved, a Part II Order may be invoked. There is one Schedule C Project being proposed as part of the DDTMP; the Governor’s Road Widening. The Governor’s Road Widening Project will have to fulfill Phases 3 and 4 of the Class EA.

The DDTMP will be filed with the MOE, however, none of the projects recommended within the DDTMP are subject to a Part II Order.
POLICIES AFFECTING PROPOSAL:

Urban Hamilton Official Plan
The Council adopted new Urban Official Plan designates Downtown Dundas as “Mixed use - Medium Density”. The designation recognizes the traditional mixed use in the City which serves the surrounding communities. It recognizes this use as a pedestrian oriented mixed use area with retail and service commercial as key elements.

Town of Dundas Official Plan
The Town of Dundas Official Plan is still in effect until the Urban Hamilton OP receives Ministerial approval. The DDTMP Study Area is under the jurisdiction of the Town of Dundas Official Plan. As outlined in the Dundas OP (pages 1-10) it is the intention that the Downtown Mixed Use Area will continue to serve as the primary commercial area for the Community with a strong pedestrian orientation.

Growth Related Integrated Development Strategy (GRIDS) Growth Report
The 2007 Growth Related Integrated Development Strategy (GRIDS) Growth Report identified Downtown Dundas as a Community Node. Similar to the OP, the GRIDS Growth Report states the Community Nodes have a pedestrian oriented main street and provide local retail functions and specialty retail. The nodes are generally well-served by transit and are surrounded by residential areas. The Community Nodes are anticipated to achieve densities that will enhance services and promote live-work opportunities, while at the same time maintaining the look and feel of historic downtown.

City Wide Transportation Master Plan
The City of Hamilton’s City Wide TMP has relevant guiding principles and direction for Downtown Dundas. The Hamilton TMP establishes a number of transportation targets for the short- and long-term (2031) period. The TMP had four main themes:
- promote a strong and vibrant economy
- build liveable communities
- provide a balanced transportation network; and,
- improve public transit

City of Hamilton – Public Works Business Plan
The preferred alternatives within DDTMP complies with the City of Hamilton – Public Works Business Plan because the recommendations are community oriented. The improvements to the community are geared towards pedestrians, providing opportunities for people from all kinds of lifestyles to gather in a green and safe environment.

City of Hamilton – Strategic Plan
The DDTMP complied with the City of Hamilton’s Strategic Plan because it engaged the community and the recommendations within the TMP for safe and efficient traffic movement, transit, and cycling strive to strengthen the liveable community of Dundas and make it a safer place for pedestrians, cyclists, and motorists.
RELEVANT CONSULTATION:

The Ward 13 Councillor has been consulted about this report and is in agreement with its contents.

Public and agency consultation was completed throughout the DDTMP, in accordance with the requirements of the Municipal Class EA.

Stakeholder Meeting No. 1:

The Master Plan process underwent two (2) stakeholder meetings and (2) Public Information Centres (PIC). The first stakeholder meeting was held on May 26, 2008. The purpose of this meeting was to provide key stakeholders with background information on the project and the strengths and weaknesses, opportunities and potential implications of changes to the transportation network through the study area and to obtain feedback on key problems/opportunities in the study area. Key issues raised by stakeholders at the meeting included the need for improved transit in Dundas, improvements to pedestrian and cycling facilities, and coordination with the ongoing Governor’s Road Class EA.

Public Information Centre No. 1:

PIC No. 1 was held on June 5, 2008. The meeting was held as an informal drop-in session, with staff from the City of Hamilton and the consultant available to answer questions and record comments. Twenty-seven people signed the Record of Attendance. The following information was presented at the information centre:

- Study purpose and objective
- Study process
- Summary of all relevant background studies, including the Hamilton Transportation Master Plan
- Growth projections for Dundas
- Existing conditions related to land use; transportation network; traffic control; traffic volumes; transit, pedestrian and cycling facilities
- Historical collision
- Travel demand forecasts
- Next steps in the study

Stakeholder Meeting No. 2 and Public Information Centre 2:

The second stakeholder meeting and PIC were held together on October 30, 2008. The format was an open-house/drop in format. Fifty-three people signed the Record of Attendance. The PIC was held jointly with the Governor’s Road Intersection Improvement Study.

The Governor’s Road Intersection Study was completed by the City of Hamilton to improve various intersections along Governor’s Road, including Davidson Boulevard and Pirie Street. The study was coordinated with the DDTMP to promote consistency and integration with the overall planning strategies and long-term infrastructure planning solutions for the community of Dundas.

PIC No. 2 was held to provide a summary of public comments received following PIC No. 1, present the alternatives being considered toward addressing transportation issues, the evaluation of the alternatives, the policies being considered to address alternative
transportation modes and transit improvements, and to receive additional public input into the planning process.

Some of the issues raised during the consultation process will be addressed in the context of other ongoing and future studies which include:

- The Hamilton Truck Route Master Plan
- Governor’s Road Intersection Improvement Study - detailed design related issues will be addressed in the context of a Class Environmental Assessment (i.e. Phases 3 and 4 of the EA process)
- HSR Transit Operational Review
- Shifting Gears

The remaining transportation-related community concerns that will be carried forward for further evaluation and have been recommended as future projects as part of the DDTMP. They can be summarized as follows:

- Hatt Street – there are community concerns related to excessive speeds and insufficient pedestrian crossing locations.
- Hatt Street/Ogilvie Street Intersection – there are community concerns related to pedestrian safety.
- King Street/Ogilvie Intersection – there is an opportunity to improve both the intersection operations and pedestrian safety.
- Creekside Drive – there are community concerns related to traffic infiltration and safety.

Staff will be holding an additional Public Information Centre in January 2010 for the DDTMP. The purpose of this PIC is to present the final DDTMP recommendations and go over the changes to the TMP since the last PIC. Also, the project team would like to discuss the next steps involved with the role out to the DDTMP recommendations.

Agency Consultation

The following City of Hamilton departments were contacted for this project:

- Hamilton Emergency Services
- Planning and Economic Development (Community Planning and Design, Planning and Economic Development)
- Public Works (Waste Management, Transit, Operations and Maintenance, Traffic Engineering and Operations, Capital Planning and Implementation)
- Corporate Services

The following agencies were contacted for this project:

- Hamilton Conservation Authority
- Ministry of the Environment
- Ministry of Culture
- Ontario Native Affairs Secretariat for Aboriginal Affairs
- Remedial Action Plan
- Canada Post
- Hamilton Executive Directors’ Aboriginal Coalition
- Six Nations Lands and Resources
- The Chiefs of Ontario
- The Métis Nation of Ontario
- Ontario Federation of Indian Friendship
- Mississaugas of New Credit First Nation
- Department of Indian and Northern Affairs
- Ministry of the Attorney General
- Bell Canada
• Union Gas
• Enbridge Pipelines Inc.
• Cogeco Cable Inc.
• Hydro One
• South Mount Cable Ltd.
• Mountain Cablevision
• Hamilton District Catholic School Board
• Hamilton-Wentworth School Board
• Niagara Escarpment Commission
• Ministry of Natural Resources
• Horizon Utilities Corporation
• Indian and Northern Affairs Canada
• CN Rail
• Transport Canada

**CITY STRATEGIC COMMITMENT:**

By evaluating the “Triple Bottom Line”, (community, environment, economic implications) we can make choices that create value across all three bottom lines, moving us closer to our vision for a sustainable community, and Provincial interests.

**Community Well-Being is enhanced.** ☑ Yes ☐ No
Participation in community life is accessible to all Hamiltonians.

**Environmental Well-Being is enhanced.** ☑ Yes ☐ No
Human health and safety are protected.

**Economic Well-Being is enhanced.** ☑ Yes ☐ No
Infrastructure and compact, mixed-use development minimize land consumption and servicing costs.

**Does the option you are recommending create value across all three bottom lines?** ☑ Yes ☐ No

**Do the options you are recommending make Hamilton a City of choice for high performance public servants?** ☐ Yes ☑ No
Appendix A: Study Area Map
Undertake a traffic calming study to reduce vehicle speeds and provide for additional pedestrian crossings.

Undertake a traffic calming study to reduce traffic infiltration and improve safety.

Modify pavement markings on northbound approach to better delineate commencement of northbound right turn lane.

Addition of southbound left turn auxiliary lane.

Addition of eastbound lane.

Addition of westbound lane.

Change southbound approach lane configuration to feature an exclusive left turn lane (15 metre storage) and a through/right shared lane.

Change northbound approach lane configuration to better delineate commencement of northbound left turn lane.

Monitor intersection conditions/operations

Addition of westbound left turn auxiliary lane (15m).
<table>
<thead>
<tr>
<th>Description of Recommended Solutions</th>
<th>EA Schedule (if applicable)</th>
<th>Timetable for Implementation</th>
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<tbody>
<tr>
<td></td>
<td>Short-Term</td>
<td>Medium-Term</td>
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<tr>
<td><strong>Hatt Street / Memorial Square intersection</strong></td>
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<tr>
<td>o Monitor transportation operations to determine if improvements are warranted in the future to address capacity shortfalls for the southbound approach</td>
<td>n/a</td>
<td>✓</td>
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<tr>
<td><strong>Hatt Street Traffic Calming Study (between Market Street and Ogilvie Street)</strong></td>
<td></td>
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<tr>
<td>o Undertake a traffic calming study to reduce vehicle speeds and provide additional pedestrian crossing locations (if warranted)</td>
<td>n/a</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Creekside Drive Traffic Calming Study (between Hatt Street and Ogilvie Street)</strong></td>
<td></td>
<td></td>
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<tr>
<td>o Undertake a traffic calming study to reduce traffic infiltration and improve safety (if warranted)</td>
<td>n/a</td>
<td>✓</td>
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<tr>
<td><strong>Transit Facility Improvements</strong></td>
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<td></td>
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<tr>
<td>Ensure appropriate transit shelters and passenger amenities/information at highly used stops, the connection to the B-Line service at University Plaza</td>
<td>A</td>
<td>✓</td>
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<tr>
<td>Investigate developing a multi-modal facility in Dundas just outside the Downtown area and extend the B-line service to this facility.</td>
<td>Varies (to be determined)</td>
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<tr>
<td>Implement a zone bus service to replace conventional fixed route transit. Provide connection to B-line service at University Plaza</td>
<td>N/A</td>
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<td><strong>Cycling Facility Improvements</strong></td>
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<tr>
<td>Provide improved signing and information for the existing cycling network (i.e. lane markings, signage, etc.)</td>
<td>A+</td>
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<tr>
<td>Extend on-street cycling facilities along Governor’s Road/Dundas Street (i.e. West Street to Castlewood Boulevard)</td>
<td>A+</td>
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<tr>
<td>Carry out low cost improvements to provide more access points to off-street cycling facilities throughout Dundas (i.e. access to proposed future multi-use trail along Spencer Creek from Governor’s Road to Mercer Street as per the Hamilton Recreation Trails Master Plan)</td>
<td>A+</td>
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<tr>
<td><strong>Implement cycling facility improvements per direction provided in City-wide Cycling Master Plan update. Facilities in Downtown Dundas include:</strong></td>
<td></td>
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<tr>
<td>o King Street West: cycling lanes from Market Street to Bond Street</td>
<td>A+</td>
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<td>o Market Street: cycling lanes from Governor’s Road to King Street West</td>
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<td>o Main Street / Osler Drive: cycling lanes from King Street to Main Street West</td>
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</tbody>
</table>

* Cycling facility improvements to be prioritized according to the City-wide Cycling Master Plan update.
### 10.0 SUMMARY AND IMPLEMENTATION PLAN

**Table 18** provides a summary of the recommended improvements and a general timetable for implementation.

**Table 18 – Summary of Improvements and Timetable for Implementation**

<table>
<thead>
<tr>
<th>Description of Recommended Solutions</th>
<th>EA Schedule (if applicable)</th>
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<td>o Widen Governor’s Road by adding one additional westbound through lane plus one additional eastbound through lane.</td>
<td>A+</td>
<td>✔</td>
</tr>
<tr>
<td>o Change the lane configuration of the southbound approach to feature an exclusive left turn lane with 15 metres of storage plus a shared through/right turn lane.</td>
<td>A+</td>
<td>✔</td>
</tr>
<tr>
<td>o Modify the pavement markings on the northbound approach (Ogilvie Street) to better delineate the commencement of the northbound right turn lane.</td>
<td>A</td>
<td>✔</td>
</tr>
<tr>
<td>o Add a northbound (protected / permissive) left turn phase.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Governor’s Road / Ogilvie Street Safety Improvements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>o Optimize the existing signal timings and provide for an extended pedestrian clearance and/or pedestrian countdown indicator and /or a leading pedestrian interval phase.</td>
<td>A</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Governor’s Road / Main Street / Osler Drive Intersection Operations and Safety Improvements</strong></td>
<td>A+</td>
<td>✔</td>
</tr>
<tr>
<td>o Provide exclusive northbound and southbound left turn lanes by widening Main Street and Osler Drive to a 5-lane cross-section</td>
<td>A</td>
<td>✔</td>
</tr>
<tr>
<td>o Optimize signal phasing / timing plans.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hatt Street / Market Street intersection</strong></td>
<td>A+</td>
<td>✔</td>
</tr>
<tr>
<td>o Add westbound and eastbound left turn auxiliary lane with 15 metre storage bays.</td>
<td>A</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Hatt Street / Ogilvie Street intersection</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>o Adjust signal phasing / timing parameters to provide adequate walking time for vulnerable pedestrians (i.e. seniors).</td>
<td>n/a</td>
<td>✔</td>
</tr>
<tr>
<td><strong>King Street / Ogilvie Street intersection</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>o Adjust signal phasing / timing parameters to provide optimal intersection operations while providing adequate walking time for pedestrians.</td>
<td>n/a</td>
<td>✔</td>
</tr>
<tr>
<td>Description of Recommended Solutions</td>
<td>EA Schedule (if applicable)</td>
<td>Timetable for Implementation</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>----------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Short-Term</td>
</tr>
<tr>
<td>o Ogilvie Street: cycling lanes from Hatt Street to the multi-use trail south of Dundana Avenue</td>
<td>A+</td>
<td>✓</td>
</tr>
<tr>
<td>o York Street: cycling lanes from King Street East to Olympic Drive</td>
<td>A+</td>
<td>✓</td>
</tr>
<tr>
<td>o Governor’s Road: cycling lanes from Cootes Drive to Binkley Road</td>
<td>A+</td>
<td>✓</td>
</tr>
<tr>
<td>Provide accessible, secure and protected bicycle parking areas in strategic locations within Downtown Dundas. Parking locations should link cycling and public transportation for commuting and other purposes. Parking should be initially located between King Street to the north and Hatt Street to the south, centered around Sydenham Street, and later expanding to other areas of the Downtown.</td>
<td>n/a</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Pedestrian and Trail Facility Improvements

<table>
<thead>
<tr>
<th>Description of Recommended Solutions</th>
<th>EA Schedule (if applicable)</th>
<th>Timetable for Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Short-Term</td>
</tr>
<tr>
<td>Continue implementation of Hamilton Trails Master Plan on current schedule</td>
<td>A+</td>
<td>✓</td>
</tr>
<tr>
<td>Reprioritize Hamilton Trails Master Plan to move up Spencer Creek Trail improvements from Phase 3 to an earlier phase</td>
<td>A+</td>
<td>✓</td>
</tr>
<tr>
<td>Install delineated pedestrian crossings (unsignalized marked and/or raised/signalized marked) where warranted</td>
<td>A+</td>
<td>✓</td>
</tr>
<tr>
<td>Install curb extensions along streets currently allowing on-street parking to help manage conflict between vehicular and pedestrian traffic modes</td>
<td>A+</td>
<td>✓</td>
</tr>
<tr>
<td>Improve existing pedestrian crossings at intersections (timing/phasing adjustments and/or improved delineation and/or improve accessibility for persons with disabilities)</td>
<td>A+</td>
<td>✓</td>
</tr>
<tr>
<td>Improve pedestrian sidewalk linkages and/or widen sidewalks as part of City Capital Improvement Program (short to long-term improvements)</td>
<td>A+</td>
<td>✓</td>
</tr>
<tr>
<td>Undertake a traffic calming study for Hatt Street and Creekside Drive (see Intersection and Roadway Improvements)</td>
<td>n/a</td>
<td>✓</td>
</tr>
</tbody>
</table>