Recommendation
That Council direct staff to engage the consulting firm of MMM Group Limited for engineering consulting services to undertake the Transportation Master Plan, ST10-01, at a total estimated cost of $299,012 excluding HST; and

That the City Solicitor be directed to prepare the necessary by-law and agreement. FORTHWITH

Summary
It is now timely that the City prepare a comprehensive Transportation Master Plan (TMP) to coordinate with the Region’s Transportation Master Plan, tie together the findings of previous studies, address additional pressures of growth, and take a comprehensive systems approach that considers multiple transportation modes and identified opportunities to improve accessibility / connectivity for non-automobile travel modes and manage overall travel demand. The City’s TMP will outline the City’s strategic direction for the development of transportation networks, programs and priorities and how it can best implement the complete streets concept. Key objectives of the TMP are as follows:

- Develop a long-term transportation vision, strategic direction and plan for the transportation system in St. Catharines that is consistent with the policies and plans of the Province, the Region of Niagara, and the City’s Official Plan.
- Provide an overall direction for the expansion of the City’s transportation network in an efficient and effective manner.
- Identify the timing of future steps necessary to implement the transportation plan, including the implementation priority of identified projects and steps to integrate recommended projects with plans of the Region, surrounding municipalities, the Province and all related transportation planning and operating agencies.
- Prepare a viable financial plan to support the implementation of all recommended improvements, including all costs associated with the recommended improvements and an assessment of alternative sources of revenue for funding those costs.
- Consult with residents, businesses and institutions of the City.
Background
Over the last 50 years the City has grown as a suburban community with expansive development of low-density residential neighbourhoods and an auto-vehicle focused transportation network. Much of the development was centered around the General Motors production facilities located in the City and related automotive supply businesses, with the transportation system focused on accommodating the commuting and delivery needs of the aforementioned businesses. Growth and development in the City has long since shifted focus, and the City’s continued growth and corresponding transportation needs have been met through area specific studies and localized projects.

In 2011, the City had a population of 131,400 residents and a labour force of 66,870. The City population has been growing at a rate of approximately 1% per annum over the last several years. Future growth in the City is governed by the Provincial “Places to Grow” plan as interpreted through municipal growth forecasts prepared by the Region of Niagara. The Provincial Growth Plan anticipates a growth in the Region of Niagara population of approximately 168,000 by 2041 (or approximately 1.2% per annum). It also expects growth in employment of approximately 67,000. The City’s Official Plan (OP), July 2012, estimates the population will grow to 143,800 residents with employment of 71,000 by the year 2031. Updated forecasts being developed as part of the Region’s current Municipal Comprehensive Review forecast a 2041 City population of 167,200 and employment of 80,000. The majority of the population growth will be accommodated through more compact built form and increased density of developments within urban areas.

The city has many significant amenities and attributes that have helped shape its physical character, social fabric and land use patterns. The Provincial Greenbelt encompasses the western portion of the city, containing some of the best tender fruit and crop producing agricultural lands in the Country. The Niagara Escarpment runs through the southern portion of the city, and Lake Ontario forms the northern border of the city. The Welland Canal runs through the eastern portion of the city and links Lake Ontario and Lake Erie. The Welland Canal is a major shipping route that serves the city and provides access to materials and markets across North America and around the world.

The city is well served by the Provincial Highway system. The QEW is the major link to Toronto, the rest of the Country, and to the international bridges linking to Buffalo and the rest of the United States. Highway 406 provides a major connection to the south and has recently been expanded to four (4) lanes in the southern portion of the freeway. Regional Road 20 and Highway 3 provide additional connections to Hamilton and the rest of Southern Ontario. There are major airports nearby in Toronto, Hamilton, Niagara Falls NY, and Buffalo, as well as local airports in Niagara-on-the-Lake and Welland. St. Catharines is also serviced by both the Canadian National Railway (CNR) and Canadian Pacific Railway (CPR), and was previously serviced by VIA passenger rail service. Recently, GO Transit service has been extended to Niagara Region, including summer weekend GO Rail service and daily GO Bus service to Fairview Mall. A GO HUB and Station Study is also underway, which will provide a framework for additional GO Transit expansion. Additional inter-municipal transit service between Welland, Niagara Falls and
St. Catharines has been approved for future implementation by the Region as a means of improving intra-regional mobility and accessibility to educational and employment centres in the Region.

Significant development has been occurring in the city’s west end. This development has included Big Box Centres along the Fourth Avenue corridor and the construction of a new Regional Health Centre at First Street Louth and Fourth Avenue. In 2005, the City, in collaboration with the Region of Niagara, undertook the West St. Catharines Transportation Study that examined and addressed transportation needs in this part of the city. The study included an assessment of the traffic circulation system and parking in the Downtown area. The Region is currently assessing a new Highway 406 interchange in the area of Third Street through the sub-area transportation demand modelling being undertaken as part of the Region’s Transportation Master Plan (discussed below). This interchange could improve accessibility to new developments.

The Regional Municipality of Niagara is currently undertaking the Niagara Multi-Modal Transportation Master Plan, which will outline the Region’s strategic direction for transportation considering the growth plan to the 2041 horizon year. As part of this TMP, the Region is developing a new travel demand model (including regional and municipal transportation network for Niagara and neighbouring regions), a Complete Streets Policy, an updated Bike Master Plan, and other future transportation strategies which will impact the City of St. Catharines. Therefore, the City’s TMP will be developed in concert with the Niagara TMP, ensuring consistency with the Regional plan. A presentation was given to Council on May 11, 2015 regarding the details of the Region’s Plan. A copy of the presentation can be downloaded here.

Over the years, St. Catharines has become a destination of choice of cyclists, boasting a significant system of cycling and walking trails which provide opportunities for recreational and utilitarian users as well as tourists to travel around St. Catharines and connect to other areas of Niagara Region. The Region completed a Bikeway Master Plan in 2003 that identified a system of bike routes across Niagara (including St. Catharines), which provided design guidelines for implementing the bikeway system. The City has implemented a number of the recommended routes and has identified a number of walking trails that have been partially implemented. The Region’s on-going Transportation Master Plan will also include an update to the Bikeway Master Plan.

The city is within the Provincial Greater Golden Horseshoe Growth Plan Area (GGHGP) and is in part included within the Provincial Greenbelt Plan area and Niagara Escarpment Plan area. The study area for the TMP study will include the entire municipality of St. Catharines, as well as surrounding areas that influence travel in the city. The city is approximately bound by:

- Lake Ontario to the North
- Pelham Road / St. Davids Road to the South
- The Welland Canal to the East
- Fifteen Mile Creek to the West
The expanded area may include, but not be limited to, the Glendale Area, Airport Area, the western boundary of the Town of Niagara-on-the-Lake, northern boundaries of the City of Thorold and Town of Pelham, and the eastern boundary of the Town of Lincoln.

**Report**

It is now important that the City prepare a comprehensive Transportation Master Plan (TMP) to tie together the findings of previous studies, address additional pressures of growth and take a comprehensive systems approach that considers multiple transportation modes and identified opportunities to improve accessibility / connectivity for non-automobile travel modes and manage overall travel demand. Policies and programs aimed at reducing demand for single occupancy vehicular travel and encouraging greater use of alternative travel modes (including high occupancy vehicles, or carpooling, transit, cycling and walking) have been shown to be a more effective way to accommodate travel in a healthy and sustainable manner while maximizing the efficiency of the transportation network and reducing the need to expand.

The TMP will outline the City’s strategic direction for the development of transportation networks, programs and priorities and how it can best implement the complete streets concept. Key objectives of the TMP are as follows:

1. Develop a long-term transportation vision, strategic direction and plan for the transportation system in St. Catharines that is consistent with the policies and plans of the Province, the Region of Niagara, and the City’s Official Plan. The plan will also promote sustainable transportation practices and provide a basis for:
   a. Investments in infrastructure and service delivery toward the City’s TMP Horizon Year 2041, ensuring consistency with the Regional and Provincial ultimate horizon year.
   b. Coordination with other jurisdictions that provide connected transportation services to St. Catharines.
   c. Input for future Development Charges (DC) for new developments or re-developments occurring in the city.
   d. The preparation of a report on the needs that satisfies the requirements of Phase 1 and 2 of the Municipal Class Environmental Assessment process (as amended in 2015) for proposed transportation projects, facilities and services in the city.
   e. Compliance with AODA standards.

2. Provide an overall direction for the expansion of the city’s transportation network in an efficient and effective manner. The transportation policy framework will take into consideration:
   a. Increasing mode split for non-automobile modes, encouraging alternative travel modes.
   b. Improving existing and future transportation operational deficiencies through targeted improvements and optimization.
   c. Promoting a sustainable transportation network that encourages active transportation and transit / paratransit supportive communities, adopting complete streets concepts to drive mode shift and health / wellness.
d. Improving transit / paratransit coverage, accessibility, and connectivity with other travel modes.

e. Creating safer and aesthetically pleasing pedestrian streets and streetscapes in new and existing neighbourhoods (making considerations for Traffic Calming Policies, Parking Policies, etc.).

f. Improving road safety through design recommendations and layout.

g. Promoting a transportation network that aims to improve air quality and reduce Green House Gas emissions.

h. Introduce a process that allows for the consideration of complete streets as a forethought in design criteria rather than an afterthought, including the associated financial implications.

i. Improve transportation network connectivity for all modes.

3. Identify the timing of future steps necessary to implement the transportation plan, including the implementation priority of identified projects and steps to integrate recommended projects with plans of the Region, surrounding municipalities, the Province and all related transportation planning and operating agencies.

4. Prepare a viable financial plan to support the implementation of all recommended improvements, including all costs associated with the recommended improvements and an assessment of alternative sources of revenue for funding those costs.

Public consultation throughout the development of the TMP is essential to the success of the plan. The consultation strategy will ensure that the residents, businesses and institutions of the city understand the scope and rationale for the TMP, as well as the potential impacts to them both locally and the city as a whole. The TMP will meet all public consultation requirements for the MEA Class EA process for Master Plans.

The TMP project timeline is expected to be approximately 14-16 months and is included in Appendix 1. Based on this proposed scheduled, if the project is awarded and started in February 2017, it would be expected to be complete by June 2018.

Financial Implications

In accordance with the City’s Procurement Policy, staff issued a Request for Proposals (RFP) on September 23, 2016, with a closing date of October 26, 2016. A total of three proposals were received from interested firms. Staff from Transportation and Environmental Services (TES), Planning and Building Services (PBS), Parks, Recreation and Cultural Services (PRCS), and the St. Catharines Transit Commission reviewed the proposals. The selection criteria and scoring included: qualification and experience in similar projects, project understanding and approach, project delivery and proposed schedule, oral presentation, and fee proposal.

After using the multi-step selection criteria set out in the procedure, it is the recommendation of staff that the firm of MMM Group Limited be engaged to provide the required services for the Transportation Master Plan ST10-01.
The amount of the MMM Group Limited proposal is $299,012.00 excluding HST. In accordance with the approved procedure for engaging Consulting Services the Consultant will be required to enter into a standard agreement.

Council has previously approved a total of $400,000 in the Capital Budget to fund the TMP. The Budget is made up of $100,000 from the Move Ontario Funds from 2010, $200,000 from the Federal Gas Tax in 2010, and another $100,000 from the Federal Gas Tax in 2012. The City Treasurer advises that there are sufficient funds in the project budget for the award of the engineering services.

**Relationship to Strategic Plan**

This study directly addresses the following goals of Council’s Strategic Plan, namely:

- Attract public and private investment, support local businesses and provide excellent customer service to demonstrate we are open for business
- Be an affordable city for young people, families and retired older adults
- Develop partnerships to enhance the economic vitality of the community
  - Work with the Niagara Region to complete an integrated Transportation Master Plan by 2017
- Strive for the highest quality of life for all citizens
- Connect people, places and neighbourhoods
- Provide excellent customer service and communication with citizens
- Lead in the protection of our environment for future generations
- Be prepared for the impacts of climate change

**Conclusion**

The time has come for the City to undertake a Transportation Master Plan. Staff recommend the consulting firm of MMM Group Limited be engaged to undertake the Transportation Master Plan as MMM Group Limited’s proposal demonstrates a proper and thorough understanding of the City’s needs, its unique challenges and the expected deliverables and outcomes from this study. The proposed project team possess the capabilities and resources to deliver on the project within the proposed budget and timetable for completion.

**Prepared and Submitted by:**
Brian Applebee, C.E.T.
Manager of Transportation Services

**Approved by:**
Dan Dillon, P.Eng.
Director of Transportation & Environmental Services
Assess and evaluate the alternative network solutions, based on the multiple account evaluation criteria

Determine the preferred scenario

Public Consultation Round #2

Second round of stakeholder meetings and public consultation

Task B Report

Prepare Report for Task B

Task C - Preferred Solution and Refinement

Complete Streets

Develop a Complete Streets policy

Develop Complete Streets guiding principles

Develop sidewalk policy and cycling facility policy

Identify cost sharing opportunities for Complete Streets

Integrate St. Catharines Complete Streets concepts with Niagara Region Complete Streets concepts

Identify streets that can incorporate Complete Streets elements

Review and incorporate results and recommendations for on-street parking

Public Transit / Paratransit

Assess opportunities for service expansion

Evaluate the Downtown Transit Hub and identify other locations for hubs

Review municipal paratransit service

Consider future GO Transit service expansion to St. Catharines

Assess the impacts of emerging technologies on transit

Recommend future transit and paratransit network expansions

Coordinate with Niagara Transit Service Delivery and Transit Governance Study

Active Transportation

Review existing active transportation facilities

Review Niagara Bikeway Master Plan

Identify & map candidate AT routes (includes GIS Spatial Analysis)
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<tr>
<td>54</td>
<td>Develop standards for trails</td>
<td>Develop phased capital program</td>
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<td>Develop active transportation and TDM policy for future developments</td>
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<td>Conduct comprehensive review of bicycle parking, including design criteria</td>
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<td>Develop policy for cycling supportive facilities at inter-modal hubs</td>
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<td>58</td>
<td>Review and update the Regional Wayfinding Strategy for Active Transportation</td>
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<td>59</td>
<td>Incorporate potential bike share programs and policies</td>
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<td>60</td>
<td>Ensure active transportation facilities adhere to AODA standards</td>
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<td>61</td>
<td>Travel Demand Management</td>
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<td>Provide recommendations for new policies and initiatives related to TDM to be incorporated into the overall TDM including an action plan.</td>
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<td>Assess TDM opportunities with technological advancement</td>
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<td>Explore the feasibility of signal coordination / prioritization</td>
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<td>Assess feasibility of bike share and car share programs</td>
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<td>68</td>
<td>Ensure consistency with Niagara Region TDM Study</td>
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<td>Develop action plan for TDM</td>
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<td>70</td>
<td>Incorporate results from Parking Study into TDM</td>
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<td>Goods Movement</td>
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<td>Provide recommendations for improved truck routing to improve safety and more efficient goods movement service.</td>
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<td>74</td>
<td>Review pavement requirements to support trucks and recommend pavement improvements</td>
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<td>Roadway Classification</td>
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<td>76</td>
<td>Review current roadway classifications to recommend changes or updates if required.</td>
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<td>77</td>
<td>Determine ultimate ROW widths</td>
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78. Review and update policy on urban and semi-urban cross sections

79. Relate road classifications to City Official Plan specifications

80. Determine road classifications for existing and future roads

81. Include Complete Streets as part of future classifications

82. Work with the City’s Operation Manager on MMS Routing

83. Balance operations and safety

84. Develop private street right-of-way standards

85. Public Consultation Round #3

86. Third round of stakeholder meetings and public consultation

87. Task C Report

88. Prepare Task C Report

89. Task D - Documentation and Finalization

90. Identify multi-modal transportation needs to accommodate planned growth

91. Assess alternative solutions to meet the needs

92. Recommend a preferred solution

93. Recommend policy updates to the Official Plan

94. Develop a phased implementation schedule for multi-modal improvements

95. Identify indicative costs for transportation improvements and financial strategy to fund implementation

96. Develop a monitoring framework to assess the performance of the Plan on an on-going basis.

97. Prepare draft TMP report.

98. Incorporate City comments on draft TMP.

99. Prepare final TMP report.

100. Public Consultation and Stakeholder Meetings

116. Prepare & Publish Notice of Study Completion

117. Project Management

118. Monthly Progress Meetings