City of Kingston
Report to Council
Report Number 17-183

To: Mayor and Members of Council
From: Lanie Hurdle, Commissioner, Community Services
Resource Staff: Julie Salter-Keane, Community Projects Manager
Date of Meeting: July 11, 2017
Subject: Implications of Closing Napier Street, Between Brock and Mack Street

Executive Summary:

At the November 15, 2016 Council meeting, Council passed a motion directing staff to examine the implications to traffic and local residents on closing Napier Street between Brock Street and Mack Street to motor vehicle traffic only, and report back, with options that would increase the amount of parkland space, as well as parking space for potential housing nearby.

Staff reviewed options ranging from status quo to various permanent closure of Napier Street between Brock Street and Mack Street. Possible options include:

1. Continue with existing road as is; or
2. Close the entire subject section and providing an easement or selling the land to the owner of 244 Mack Street to retain access to the private driveway; or
3. Retain the roadway pavement from Mack Street to approximately halfway between Mack Street and Brock Street where a cul-de-sac will be constructed.

Notwithstanding the option selected, save and except “status quo”, vehicle through movements would no longer be possible. A portion of Napier Street right-of-way would have to be retained for the purposes of providing vehicular access to the driveway/garage associated with 244 Mack Street and not be converted to park space.

Staff retained a traffic consultant to examine the implications to traffic. Staff also researched implications to parking, emergency services and environmental requirements.
Dillon Consulting Limited was retained by the city to assess the traffic implications of a permanent closure of the vehicular connection along Napier Street between Mack Street and Brock Street. The Transportation Analysis provides an assessment of whether All-Way Stop Control (AWSC) is warranted at any nearby intersections currently operating under a Two-Way Stop Control (TWSC) as a result of diverted traffic and an assessment of whether traffic calming measures are required on any streets in close proximity as a result of diverted traffic (Exhibit D to Report Number 17-183). The report concludes that based upon the criteria set out in the city’s guidelines, none of the study intersections warranted a change to AWSC operation and no roads are in close proximity to the subject section where traffic calming measures are expected to be implemented as the result of closing this portion of Napier Street.

Presently, the parking on Napier Street between Brock Street and Mack Street is unregulated and provides for approximately 18 parking spaces on the west side of the street and 12 spaces on the east side of the street. Some of the parking is utilized all day on weekdays by commuters but it is not at capacity. If this block of Napier Street was to be closed, the on-street parking that is lost would need to be accommodated on the surrounding side streets. But based on review by Parking Operations, the impact would be minimal and easily accommodated.

Three options for consideration of closing the subject portion of Napier Street were developed based on the input received from staff and the public. An important element for consideration in the development of any option was that access to the property located at 244 Mack Street would need to maintain some form of access to the driveway off of Napier Street.

**Options for Consideration**

**Option 1 – Existing Condition (Exhibit A)**

**Option 2 – Driveway Entrance for 244 Mack Street by right-of-way or severance (Exhibit B)**

Adding a portion of the existing Napier Street right-of-way to the adjacent property located at 244 Mack Street, a width of six to nine metres, would extend the southerly limit of the subject property. The details of the design of the right-of-way would still need to be worked out with the property owner and staff would review options to minimize the length of the right-of-way. The southern portion of Napier Street would be closed and the asphalt would remain in place. Access to the unopened street would be blocked with bollards.

Approximate cost to transfer a portion of Napier Street to the owners at 244 Mack Street for a driveway entrance is $60,000 - $80,000.

**Option 3 – Cul-de-Sac off of Mack Street (Exhibit C)**

Construction of a cul-de-sac off of Mack Street. The southern portion of Napier Street would be closed and the asphalt would remain in place. Access to the unopened street would be blocked with bollards. This option would most likely reduce the overall greenspace as it would require space within the existing Churchill Park and the new park at 671 Brock Street. Approximate cost to construct a cul-de-sac is between $550,000 – $710,000.
It is important to note that the cost estimates for both Option 2 and Option 3 do not include any costing estimates to convert the Napier Street roadway into a park landscape. Should Council decide to close Napier Street, it would be included in the park design and construction budget for the park at 671 Brock Street.

Input was sought from the public at two sessions and through online surveys. On February 22nd staff hosted a consultation session to hear ideas from the public on the motion passed by City Council. On May 8th staff held a second session to receive comments on the options developed based on public ideas and the information relating to traffic, parking and costing. Following the May 8th session, an online survey was posted on the city website to receive public input on the proposed options. Comments from the public varied from leaving Napier Street as it is and pursue retaining the residential market block at 671 Brock Street and proceeding with Option 2 – driveway entrance for 244 Mack Street. Minimal support was provided to Option 3 – a cul-de-sac off of Mack Street.

With respect to the request from the public regarding the city retaining the residential market block, this matter was reconsidered by Council in November 2016 and can only be reconsidered by Council in November 2017 based on the city’s procedural by-laws.

**Recommendation:**

That Council consider the options and direct staff to proceed with the implementation of one of the following options:

**Option 1:**

That Council direct staff to take no further action with respect to the closure of Napier Street between Brock and Mack Streets.

Or

**Option 2:**

That Council approve the closure of Napier Street and the transfer of a portion of Napier Street in order to create a driveway entrance for 244 Mack Street it being understood that:

- a portion of the existing Napier Street right-of-way will be added to the adjacent property located at 244 Mack Street, a width of six to nine metres, to extend the southerly limit of the subject property;
- the southern portion of Napier Street will be closed and the asphalt will remain in place;
- access to the unopened street will be blocked with bollards; and
- approximate cost to transfer a portion of Napier Street to the owners at 244 Mack Street for a driveway entrance is $60,000 - $80,000.

Or
Option 3:

**That** Council approve the closure of Napier Street and the construction of a cul-de-sac off of Mack Street it being understood that:

- the southern portion of Napier Street will be closed and the asphalt will remain in place; and
- access to the unopened street will be blocked with bollards; and
- approximate cost to construct a cul-de-sac is between $550,000 – $710,000.
Authorizing Signatures:

ORIGIiNAL SIGNED BY COMMISSIONER
Lanie Hurdle, Commissioner, Community Services

ORIGIiNAL SIGNED BY CHIEF ADMINISTRATIVE OFFICER
Gerard Hunt, Chief Administrative Officer

Consultation with the following Members of the Corporate Management Team:

Denis Leger, Commissioner, Corporate & Emergency Services  
Jim Keech, President and CEO, Utilities Kingston  
Desiree Kennedy, Chief Financial Officer & City Treasurer  

Not required
Options/Discussion:

On November 15, 2016, Council endorsed the following motion:

**Whereas** Williamsville District currently has the lowest parkland per capita ratio in Kingston; and

**Whereas** even with the acquisition of 671 Brock Street the local residents remain concerned about having adequate greenspace at that location; and

**Whereas** Churchill Park, adjacent across Napier Street from 671 Brock Street, is primarily occupied by permanent natural features with no open space for ball games and other play areas for children; and

**Whereas** the proposed housing developments on 671 Brock Street would need adequate parking; and

**Whereas** the current use of the block of Napier Street from Mack Street to Brock Street is that of a secondary road with low traffic volume;

**Therefore Be It Resolved That** staff examine the implications to traffic and local residents on closing that one block of Napier Street to motor vehicle traffic only, and report back, in Q1 2017, with options that would increase the amount of parkland space, as well as parking space for potential housing nearby.

Options reviewed by staff include:

1. Continue with existing road as is; or

2. Close the entire subject section and providing an easement or selling the land to the owner of 244 Mack Street to retain access to the private driveway; or

3. Retain the roadway pavement from Mack Street to approximately halfway between Mack Street and Brock Street where a cul-de-sac will be constructed.

**Traffic Considerations**

Dillon Consulting Limited was retained by the city to assess the traffic implications of a permanent closure of the vehicular connection along Napier Street between Mack Street and Brock Street in February 2017. The Transportation Analysis, prepared by Dillon Consulting Limited, provides an opinion of whether All-Way Stop Control (AWSC) is warranted at any nearby intersections currently operating under a Two-Way Stop Control (TWSC) as a result of diverted traffic and whether traffic calming measures are required on any streets in close proximity as a result of diverted traffic.
Approxiately six hundred (600) vehicles per day use the subject section of Napier Street. There are currently no turning restrictions at any of the intersections and vehicles affected by the proposed closure have ample alternative routing options.

Two future scenarios were developed in relation to the diversion of existing traffic currently travelling the subject section of Napier Street. The first scenario reviews traffic diverted at the two intersections to the point the closure begins and then turn to find an alternative route to their destination. The second scenario implies that drivers have prior knowledge of the closure and decide to divert earlier via another intersection.

All-Way Stop assessments were carried out at four intersections in close proximity to the subject section.

A traffic calming feasibility assessment was carried out to determine whether the diverted traffic will increase traffic at other area intersections to the extent that traffic calming measures would be required.

The report concludes that based upon the criteria set out in the city’s guidelines, none of the study intersections warranted a change to AWSC operation and no roads are in close proximity to the subject section where traffic calming measures are expected to be implemented as the result of closing this portion of Napier Street.

Environmental Considerations
Napier Street closure requires that a Municipal Class Environmental Assessment (EA) be completed. This project falls under the “Retirement of Existing Road and Road related Facilities” category and would therefore be subject to a Pre-Approved Schedule A+ Class EA.

By definition, a Class A+ EA is pre-approved. However, one of the requirements of Schedule A+ is to ensure that the public is notified of municipal infrastructure project(s) being constructed or implemented in their area. The manner in which the public is advised is to be determined by the proponent. This could be a notice provided to adjacent property owners, a notice posted at the site, a report to Council or a list of projects posted on the municipality’s website. Based on the public engagement that has taken place through this process, the requirement of public notification has been completed.

In addition, the conversion of a public road to parkland or residential is considered a prohibited change of land use described in Ontario Regulation 153/04 made under the Environmental Protection Act of Ontario. In order to change the use of the lands, a record of site condition (RSC) would be required that confirms the lands meet the site criteria for parkland or residential. The RSC would be completed should Council decide to close Napier Street and is part of the estimated budget.

Parking Considerations
Presently, the parking on Napier Street between Brock Street and Mack Street is unregulated and provides for approximately 18 parking spaces on the west side of the street and 12 spaces on the east side of the street. Some of the parking is utilized all day on weekdays by commuters
that have shifted here as a result of the parking regulation changes in other areas of the city but it is not at capacity. Typically, between eight (8) to twelve (12) vehicles park daily along this stretch of Napier Street.

If this block of Napier Street was to be closed, the on-street parking that would need to be accommodated on the surrounding side streets would be minimal, based on current parking utilization in this area.

The cul-de-sac option (Option 3) would continue to provide for approximately 15 parking spaces.

**Fire and Rescue Considerations**

A condition in closing Napier Street between Brock Street and Mack Street is that either the northern or southern portion of Napier Street be renamed so as not to have a road that is not continuous with the same name (two Napier Streets). This is to ensure efficient response in case of an emergency call.

Kingston Fire & Rescue recognizes this would have an impact on some long term residential owners. To minimize the impact to a half a dozen properties, they recommend that the northern portion be renamed to a name from the Kingston Area Central Street Register.

**Public Comments for Consideration**

- That Council reconsider selling the residential market block at 671 Brock Street and retain it for additional park space.

Many comments were received requesting the reconsideration of the sale of the market block. The September 6, 2016 motion of Council directed staff to declare the market block surplus. A reconsideration of this motion took place on November 1, 2016 and lost and therefore can only be reconsidered by Council in November 2017 based on the city’s procedural by-law. The direction from Council is to sell the property on the private market.

- Option 1 – Existing Condition

A number of comments received recommend that the street should remain open. Support for this option related primarily to the cost to implement option 2 and option 3.

- Option 2 - Driveway Entrance for 244 Mack Street

Those who supported Option 2 provided comments indicating that this option provided the best use for additional green space. Many comments also recommended that the asphalt on the closed portion of Napier Street should be removed and replaced with grass.

- Option 3 – Cul-de-Sac

Comments received on this option indicated that this option is far too expensive and of no benefit. It reduces green space instead of increasing it.
Fifty-five members of the public completed the survey that was posted on the city’s website. Forty-five percent (45%) of the respondents preferred Option 2 – Driveway Entrance, forty-four percent (44%) preferred Option 1 – existing condition and the remaining eleven percent (11%) preferred Option 3 – Cul-de-sac.

**Existing Policy/By-Law:**

Not applicable

**Notice Provisions:**

Not applicable

**Accessibility Considerations:**

Not applicable

**Financial Considerations:**

Option 2 - Approximate cost to transfer a portion of Napier Street to the owners at 244 Mack Street for a driveway entrance is $60,000 - $80,000.

Option 3 - Approximate cost to construct a cul-de-sac is between $550,000 – $710,000.

The cost estimates for both Option 2 and Option 3 do not include any costing estimates to convert the Napier Street roadway into a park landscape and it is currently not included in any capital budget. Should Council decide to close Napier Street, the expense would have to be included in a future capital budget.

**Contacts:**

Lanie Hurdle, Commissioner, Community Services 613-546-4291 extension 1231

Julie Salter-Keane, Community Projects Manager 613-546-4291 extension 1163

**Other City of Kingston Staff Consulted:**

Luke Follwell, Director, Recreation & Leisure Services Department

Peter Huigenbos, Director, Real Estate & Environmental Initiatives

Brodie Richmond, Manager, Environmental Projects, Real Estate & Environmental Initiatives

Ian Semple, Manager, Service Development, Transportation Services

Kim Brown, Manager, Infrastructure & Development, Engineering Department
Deanna Green, Manager, Traffic Division, Engineering Department
Paul Patry, Chief Fire Prevention Officer, Fire & Rescue

Exhibits Attached:

Exhibit A  Option 1 – Existing Condition
Exhibit B  Option 2 – Driveway Entrance
Exhibit C  Option 3 – Cul-de-Sac
Exhibit D  Dillon Consulting Limited, Napier Street Closure Transportation Analysis, dated April 6, 2017
Exhibit E  Survey Results and Public Meeting Notes for February 22, 2017 and May 8, 2017
Driveway Entrance Option

- New sidewalk connection.
- Private concrete walk
- New 6m wide private asphalt driveway
- New 1.2m high chain-link fence
- Existing asphalt and sidewalk to remain
- New removable bollards
- New sidewalk connection.

Churchill Park

Brock St

Napier St

Mack St

Exhibit B

Council Meeting 18 July 11, 2017
Cul-de-sac Option

New cul-de-sac

Churchill Park

Existing asphalt and sidewalk to remain

New removable bollards (locking)

New sidewalk connection.
April 6, 2017

Sent via Email

City of Kingston
216 Ontario Street
Kingston, Ontario
K7L 2Z3

Attention: Ms. Deanna Green, MSc. P.Eng.
Manager, Traffic Division

Napier Street Closure Transportation Analysis - City of Kingston, Ontario

Dear Ms. Green:

1.0 INTRODUCTION

1.1 BACKGROUND

Dillon Consulting Limited ("Dillon") has been retained by the City of Kingston ("the City") to assess the traffic implications of a permanent closure of the vehicular connection along Napier Street between Mack Street and Brock Street in the City of Kingston, Ontario ("the subject section").

The City and the Kingston Frontenac Housing Corporation are the owners of the property at 671 Brock Street located on the northeast corner of the Brock Street and Napier Street intersection and is the site of the former St. Joseph and St. Mary Catholic School. The owners plan to redevelop this site with up to 47 affordable housing units with construction expected to begin in April 2017.

The purpose of closing the subject section to vehicles is to extend and enlarge Churchill Park located on the west side of Napier Street. A similar exercise was implemented by the City at Victoria Park to the east where Frontenac Street was closed between Mack Street and Brock Street in order to connect the two sides of Victoria Park previously divided by Frontenac Street.

The site location is illustrated in Figure 1.

As mentioned, immediately on the west side of Napier Street is Churchill Park and the properties of 671 Brock Street and 244 Mack Street immediately on the east side. The 244 Mack Street property has a short private driveway to a garage located off Napier Street at the rear of the house which will remain accessible to the property owners after the closure is completed.

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1.2 Study Scope

In consultation with the City, the following scope of work will be covered in this memorandum:

- Establishment of current on-street parking occupancy and restrictions along the subject section of Napier Street;
- Assessment of whether All-Way Stop Control (AWSC) is warranted at any nearby intersections currently operating under a Two-Way Stop Control (TWSC) as a result of diverted traffic;
- Assessment of whether traffic calming measures are required on any streets in close proximity as a result of diverted traffic;
- Estimation of future trips related to the proposed development at 671 Brock Street; and,
- Assessment of whether an Environmental Assessment (EA) is required.

2.0 Infrastructure Proposal

The proposal involves the permanent closure the subject section to vehicle through traffic. Possible options for the closure include:

- Retaining the roadway pavement from Mack Street to approximately halfway between Mack Street and Brock Street where a turning circle (or cul-de-sac) will be constructed;
- Closing the entire subject section and providing an easement to the owner of 244 Mack Street; or,
- Severing off the subject section and selling the land to the owner of 244 Mack Street to retain access to the private driveway.

Notwithstanding the option selected, vehicle through movements will no longer be possible. The portion of Napier Street to be retained will be for the purposes of providing vehicular access to the driveway/garage associated with 244 Mack Street only. Access to the proposed affordable housing development will be via a right-in, right-out driveway off Brock Street given that Brock Street is a one-way street westbound.

3.0 Area Road Network

**Napier Street** is a north-south two-way local road between Park Street to the north and Hill Street to the south. Napier Street has a two-lane cross section and is subject to a de facto Highway Traffic Act (HTA) speed limit of 50 km/h.

**Mack Street** is an east-west two-way local road between Alamein Drive to the west and Alfred Street to the east. Mack Street has a two-lane cross section and is subject to a de facto HTA speed limit of 50 km/h.

...cont'd
Brock Street is an east-west collector road between Sir John A. MacDonald Boulevard to the west and the Waterfront Pathway to the east. Brock Street is a one-way street westbound, with a two-lane cross section and is subject to a de facto HTA speed limit of 50 km/h.

4.0 On-Street Parking

There are no on-street parking restrictions on the west side of the subject section up to a point 28 metres before the southbound approach stop bar at Brock Street, where parking is prohibited at all times. Similarly, there are no on-street parking restrictions on the east side of the subject section except for the 24 metres south from Mack Street which is prohibited at all times.

Site observations made on Thursday, March 2, 2017 indicated that eight (8) vehicles parked all-day (at least 8 hours) along the west side of the subject section.

5.0 Traffic Volumes

5.1 Baseline Volumes

Baseline traffic volumes were obtained for various intersections that could potentially experience an increase in traffic as a result of diverted traffic. Table 1 summarizes the traffic data.

Table 1: Baseline Traffic Volumes

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Date</th>
<th>AM Peak</th>
<th>PM Peak</th>
<th>8-Hour</th>
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<tr>
<td>Johnson St &amp; Toronto St</td>
<td>June 19, 2012</td>
<td>7:30-8:30</td>
<td>16:00-17:00</td>
<td>7:00-15:00</td>
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<tr>
<td>Princess St &amp; Regent St</td>
<td>February 26, 2013</td>
<td>8:15-9:15</td>
<td>16:00-17:00</td>
<td>8:00-16:00</td>
</tr>
<tr>
<td>Princess St &amp; Victoria St</td>
<td>September 24, 2013</td>
<td>8:00-9:00</td>
<td>15:45-16:45</td>
<td>8:00-16:00</td>
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<tr>
<td>Johnson St &amp; MacDonnell St</td>
<td>May 7, 2014</td>
<td>7:30-8:30</td>
<td>15:45-16:45</td>
<td>7:15-15:15</td>
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<tr>
<td>Mack St &amp; Regent St</td>
<td>May 21, 2014</td>
<td>8:15-9:15</td>
<td>16:15-17:15</td>
<td>8:00-16:00</td>
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<tr>
<td>Johnson St &amp; Victoria St</td>
<td>June 26, 2014</td>
<td>7:45-8:45</td>
<td>15:30-16:30</td>
<td>7:30-15:30</td>
</tr>
<tr>
<td>Brock St &amp; Regent St</td>
<td>January 27, 2015</td>
<td>8:00-9:00</td>
<td>16:00-17:00</td>
<td>8:00-16:00</td>
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<tr>
<td>Brock St &amp; Victoria St</td>
<td>July 16, 2015</td>
<td>8:15-9:15</td>
<td>16:00-17:00</td>
<td>8:00-16:00</td>
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<tr>
<td>Johnson St &amp; Regent St</td>
<td>June 9, 2016</td>
<td>7:45-8:45</td>
<td>16:00-17:00</td>
<td>7:00-15:00</td>
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<tr>
<td>Park St &amp; Toronto St</td>
<td>June 14, 2016</td>
<td>8:15-9:15</td>
<td>16:30-17:30</td>
<td>7:00-15:00</td>
</tr>
<tr>
<td>Park St &amp; MacDonnell St</td>
<td>February 13, 2017</td>
<td>8:30-9:30</td>
<td>15:00-16:00</td>
<td>7:45-15:45</td>
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<tr>
<td>Park St &amp; Napier St</td>
<td>February 13, 2017</td>
<td>8:15-9:15</td>
<td>15:00-16:00</td>
<td>8:00-16:00</td>
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<td>16:00-17:00</td>
<td>8:00-16:00</td>
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</tbody>
</table>

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Figure 2 illustrates the baseline traffic volumes for the study area. There are currently no turning restrictions (peak period or otherwise) at any of the intersections listed in Table 1 which means that vehicles affected by the proposed closure have ample alternative routing options.

5.2 Diverted Traffic

Two (2) future scenarios were developed in relation to the diversion of existing traffic currently travelling the subject section of Napier Street. These scenarios were based upon two separate "decision points" where a driver would choose another route as alternative to travelling along the subject section. The first scenario reviews traffic diverted at the two intersections (or decision points) immediately to the north and south of the subject section (i.e., Mack Street & Napier Street and Brock Street & Napier Street, respectively). This would imply that drivers would have no prior knowledge of the closure and would drive up to the point the closure begins and then turn to find an alternative route to their destination. Existing traffic along the subject section was then allocated to the turning movements at subsequent intersections based upon the existing proportion of turning movements at these intersections.

The second scenario implies that drivers have prior knowledge of the closure and decide to divert earlier via another intersection. These decision points were selected as Brock Street and McDonnell Street and Park Street and Napier Street. Again, based upon the existing proportion of turning movements at these intersections, diverted traffic was allocated to the turning movements at subsequent intersections.

Figure 3 and Figure 4 illustrate the diversion routes and resultant volumes for Scenario 1 and Figure 5 and Figure 6 illustrate the diversion routes and resultant volumes for Scenario 2.

5.3 Future Site Volumes

To determine the likely volume of traffic generated by the future affordable housing site during weekday peak periods, the 9th Edition of the Trip Generation Manual published by the Institute of Transportation Engineers (ITE) was reviewed. Given that the site is proposed to offer affordable housing, ITE code 223 for Mid-Rise Apartments was selected as the most appropriate land use. The ITE Manual defines Mid-Rise Apartments as “rental apartment buildings between three and 10 storeys high”. Using the fitted curve equation, the site is forecast to generate 6 and 12 two-way volumes during the morning and afternoon peak periods, respectively, which can be considered negligible in the context of the existing traffic volumes in the area.

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6.0 **ALL-WAY STOP WARRANT**

AWSC Warrant assessments, based upon the City’s guidelines dated September 2003, were carried out at the following four (4) TWSC intersections:

- Park Street & Napier Street;
- Mack Street & Napier Street;
- Mack Street & Regent Street; and,
- Brock Street & Napier Street.

The City’s guidelines set out three (3) criteria which need to be met before AWSC is deemed warranted. Each criterion is required to be fulfilled before moving onto the next. If an intersection meets all 3 criteria then AWSC is warranted. The first criterion is that “the total vehicle volume on all approaches of an intersection exceeds an average of 200 vehicles PER hour over the eight hour period”. Of the intersections listed above, only the Brock Street & Napier Street T-intersection fulfills this criterion in both future diversion scenarios.

In scenario 1, the Park Street and Napier Street intersection averages 99 vehicles per hour, Mack Street and Napier Street averages 38 vehicles per hour and Mack Street and Regent Street averages 142 vehicles per hour. In scenario 2, the Park Street and Napier Street intersection averages 102 vehicles per hour, Mack Street and Napier Street intersection averages 45 vehicles per hour, Mack Street and Napier Street averages 45 vehicles per hour and Mack Street and Regent Street averages 128 vehicles per hour. Therefore, AWSC at these 3 intersections is not warranted.

The second criterion states that “the total volume of vehicles on the minor streets (i.e., those approaches subjected to stop control) plus the total number of pedestrians crossing the major street exceeds an average of 80 units (combination of volumes and pedestrians) per hour over the eight hour peak period”. At the Brock Street and Napier Street intersection, the combination of these two volumes is an average of 27 and 38 units per hour under scenario 1 and 2, respectively. The Brock Street and Napier Street intersection does not meet the second criterion of the guidelines and therefore is not warranted to operate under AWSC.

7.0 **TRAFFIC CALMING**

A traffic calming feasibility assessment was carried out on selected roads based upon the City’s Traffic Calming Policy dated 2013. The purpose of carrying out this assessment is to determine whether the diverted traffic, as a result of the planned closure, will increase traffic on other area streets over the period of a day to the extent that traffic calming measures would be required. The eligibility of a road to be subject to some form of traffic calming is fundamentally dependent upon two factors; vehicle speed and volume. The speed factor is only determined by existing, observed vehicle speeds on a particular road as it is not possible to predict future vehicle speeds.

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Section 5 of the City’s policy discusses the criteria that need to be met before traffic calming measures can be considered. The “initial screening” comprises the following criteria with each criterion needing to be met before moving onto the next:

- Posted speed limit must be 50 km/h or less;
- 85th percentile speed must be greater than 50 km/h;
- Traffic volume must be greater than 1,000 vehicles/day; and,
- The street must function as an Urban Local or Urban Collector.

*Table 2* summarizes the results of the various recent speed surveys carried out by the City.

*Table 2: Speed Survey Results Summary*

<table>
<thead>
<tr>
<th>Street</th>
<th>Section</th>
<th>Survey Period</th>
<th>Posted Speed Limit (km/h)</th>
<th>Average Speed (km/h)</th>
<th>85th Percentile Speed (km/h)</th>
<th>Survey Method</th>
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<tbody>
<tr>
<td>Park St</td>
<td>Between Regent St &amp; Napier St</td>
<td>Sept 17, 2015 – Sept 22, 2015</td>
<td>50</td>
<td>40.2</td>
<td>50.0</td>
<td>Tubes</td>
</tr>
<tr>
<td>Victoria St</td>
<td>Between Mack St &amp; Brock St</td>
<td>Sept 11, 2013 – Sept 16, 2013</td>
<td>50</td>
<td>35.2</td>
<td>44.7</td>
<td>Tubes</td>
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<tr>
<td>Victoria St</td>
<td>Between Park St &amp; Mack St</td>
<td>Nov 3, 2015 – Nov 9, 2015</td>
<td>50</td>
<td>39.8</td>
<td>47.6</td>
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<tr>
<td>Mack St &amp; Napier St</td>
<td>February 27, 2017</td>
<td></td>
<td>50</td>
<td>43</td>
<td>51</td>
<td>Manual Radar</td>
</tr>
<tr>
<td>Mack St &amp; Napier St</td>
<td>February 28, 2017</td>
<td></td>
<td>50</td>
<td>41</td>
<td>48</td>
<td>Manual Radar</td>
</tr>
</tbody>
</table>

Each of the roads surveyed satisfy the first criterion listed above of being subject to a 50 km/h speed limit. For the second criterion listed above, only at the Mack Street and Napier Street intersection surveyed on February 14, 2017 does the 85th percentile speed exceed 50 km/h with 51 km/h. However, the Annual Average Daily Traffic (AADT) count for the Mack Street and Napier Street intersection surveyed on February 14, 2017 indicates that the two-way daily volume is 423 vehicles along Napier Street and 765 vehicles along Mack Street. As this intersection is located immediately at the north end of the planned closure, diversions will not result in an increase in traffic to the extent that the volume will increase to over 1,000 vehicles per day. Therefore, neither Mack Street nor Napier Street is currently eligible for traffic calming measures.
8.0 **ENVIRONMENTAL ASSESSMENT REQUIREMENT**

The Napier Street closure will require that a Municipal Class Environmental Assessment (EA) be completed. This project falls under the “Retirement of Existing Road and Road related Facilities” category and would therefore be subject to a Pre-Approved Schedule A+ Class EA.

By definition, a Class A+ EA is pre-approved. However, one of the requirements of Schedule A+ is to ensure that the public is notified of municipal infrastructure project(s) being constructed or implemented in their area. The manner in which the public is advised is to be determined by the proponent. This could be a notice provided to adjacent property owners, a notice posted at the site, a report to council or a list of projects posted on the municipality’s website. If the public has any comments, they should be directed to the municipal council where they would be more appropriately addressed.

9.0 **SUMMARY**

1. Dillon has been retained by the City of Kingston to assess the traffic implications of a permanent closure of the vehicular connection along Napier Street between Mack Street and Brock Street.

2. There are plans to redevelop the site of the former St. Joseph and St. Mary Catholic School with 47 affordable housing units. The proposal involves the closure of this portion of Napier Street to through traffic and the augmentation of Churchill Park. A number of options are being considered as to what the nature of the closure will be.

3. Using the ITE Trip Generation Manual, the proposed affordable housing development is forecast to generate in the order of 6 and 12 two-way volumes during the morning and afternoon peak periods, respectively.

4. The residence at 244 Mack Street has a short private driveway to a garage located off Napier Street to the rear of the house which will remain accessible to the property owners after the closure is completed.

5. Baseline volumes (AADT, AM peak, PM peak and 8-hour) were obtained from the City for 16 area intersections.

6. There are currently no turning restrictions at any of the intersections surveyed, which means that vehicles affected by the proposed closure have ample alternative routing options.

7. Two future scenarios were developed in relation to the diversion of existing traffic currently travelling the subject section of Napier Street. The first scenario reviews traffic diverted at the two intersections (or decision points)

...cont’d
to the point the closure begins and then turn to find an alternative route to their destination. The second scenario implies that drivers have prior knowledge of the closure and decide to divert earlier via another intersection. These decision points were selected as Brock Street and McDonnell Street and Park Street and Napier Street.

8. AWSC warrant assessments, based upon the City’s guidelines, were carried out at four TWSC intersections in close proximity to the subject section. Based upon the criteria set out in the City’s guidelines, none of the study intersections warranted a change to AWSC operation.

9. A traffic calming feasibility assessment was carried out on selected roads based upon the City’s Traffic Calming Policy to determine whether the diverted traffic will increase traffic at other area intersections to the extent that traffic calming measures would be required. Based upon the criteria set out in the City’s policy, there are no roads in close proximity to the subject section where traffic calming measures are expected to be implemented.

10. The proposed closure will require a Municipal Class EA under Schedule A+ as the project falls under the category of “retirement of existing road and road related facilities”.

* * *

Should you have any further questions or wish to discuss our findings, you may contact me at (416) 229-4647, extension 2427, or e-mail me at iakram@dillon.ca.

Sincerely,

DILLON CONSULTING LIMITED

Irfan Akram, B.Sc., DIS
Transportation Planner

cc. Paul Bumstead B.E.S.,
   Dillon Consulting Limited

Attachs.

IA:ic
Our File: 17-5161
Figures
Figure 1:
Location of Closure

Council Meeting 18 July 11, 2017
Figure 2:
Baseline Traffic Volumes (8 Hours)

Exhibit D
Council Meeting 18 July 11, 2017

Location of Closure
Exhibit D
Figure 3:
Diverted Traffic Routes - Scenario 1

Location of Closure

Diversion Route

Council Meeting 18 July 11, 2017
Figure 4:
Diverted Traffic Volumes (8 Hours) - Scenario 1

Location of Closure

Exhibit D
Council Meeting 18 July 2017
Figure 5: Diverted Traffic Routes - Scenario 2

Location of Closure

Diversion Route

Exhibit D

Council Meeting 18 July 2017
Figure 6:
Diverted Traffic Volumes (8 Hours) - Scenario 2

Exhibit D
Council Meeting 18 July 11, 2017

Location of Closure
My Preferred Option – Napier Street

Survey Summary

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Condition</td>
<td>43.64%</td>
</tr>
<tr>
<td>Drive-way Entrance</td>
<td>45.45%</td>
</tr>
<tr>
<td>Cul-de-sac</td>
<td>10.91%</td>
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Total 55
Proposed Napier Street Closure

Public Consultation Meeting Notes

Wednesday, February 22nd at 6 pm

Winston Churchill School

- Motion from Council regarding the proposed closure of Napier Street.
- If Council closes the street it will be a permanent closure.
- People park on Mack Street and walk to the hospital.
- Some people are not buying the parking permits and choose to walk further.
- Approximately 600 vehicles pass (600 trips per day) through Napier Street per day.
- What are the number of vehicles/day on the other streets in the area
- Will the study take in to account the proposed large developments on Princess Street with no parking? Response: they have not gone through all Planning processes yet.
- The Traffic Study didn’t take into account the upcoming developments on Princess Street. Response: we can’t take into account unknown future developments.
- For other developments, the City Council asked to review parking requirements and there is a reduced ratio across the City in response to Active Transportation.
- Individuals park on Napier Street and walk to work. Has the City done a study regarding parking on the surrounding streets?
- Closing Napier Street will be a positive outcome since the number of accidents on the corner of Napier and Mack will decrease.
- If Napier Street is closed off alternate arrangements for parking will be made with the affected property owners.
- From a safety point of view – it is better/safer for the children playing in Churchill Park if the road was closed and the park was enlarged.
- Have Churchill Park expand onto Napier Street and that would give a feeling of enlargement
- If Napier Street is closed and then used for parking there will be no connection between the 2 parks.
- Napier Street is not going to be used for parking – it may be used for Active Transportation (i.e. cycling, etc.).
- It would be beneficial to have something active in the new park design for families/children.
- If Napier Street is closed, traffic will increase on MacDonnell and Regent Streets. Response: a traffic impact study is being completed.
- 600 vehicle trips per day is not very busy.
- Parking on Napier Street starts at 7 am. It is used by people parking and going to work; not by people parking and going to the park.
- If Napier Street is closed, current parking around the park may be impacted in the summer (weddings in the park, etc.).
- Traffic bumps on MacDonnell Street deter people from driving on it.
- If Napier Street is closed there would be 3 extra parking spots. It’s not worth it as a lot of cars use existing driveways to turn around. Just make it a green space.
- Don’t add any more parking along Regent Street.
- We will focus on Napier Street but will bring issues/impacts regarding the surrounding streets forward.
- The cost to close the street, add a bicycle path, green space, Record of Site Condition (for environmental issues, etc.) could be at least a couple of $100K. Park amenities (i.e. splash pad) would increase the costs. Need a series of connections with Churchill Park. Working with Utilities Kingston to better connect the properties (parks).
- The Community Gardens are important and heavily used.
- Selling off the southwest corner of 671 Brock Street would require more access points off of Brock Street (i.e. if they build 3 houses, etc.). Response: all shared access points would be off of Brock Street for any developments.
- If it cost about $200k to close Napier Street – could the City use the money to buy the parcel that is to be used for private development at 671 Brock Street? Response: need Council approval for this – will include it as an option in the report.
- People use Napier Street instead of MacDonnell because of the daycare there – when it is drop off/pick up time the traffic is reduced to one lane.
- If Council decides not to close Napier Street it will be a lost opportunity that if not taken we will regret in the future.
- The number of individuals per household has decreased.
Without going through the Planning process, we have the ability to build a park if the road is closed. The Official Plan land use designation doesn't have to change if we convert the road to a park.

- The number of people per unit has decreased over the years
- Do not consider the closing of Napier Street on its own.
- Utilities Kingston requires access to their property – we are working with them.
- Connection (different points) through the park – safety issues.
- Connecting the parks and calming traffic is very important. Prefer to have the street closed. Consider the idea of a traffic circle at Napier and Mack. It is important to have the park flow through the community garden. More people walking and less dead ends creates safety
- The park should be as large as possible. This area is under serviced in terms of parkland
- Staff will look at the information and may hold a follow up meeting with the public. At that meeting we will provide options.
Proposed Napier Street Closure

Public Consultation Meeting Notes

Monday May 8, 2017 at 6 pm

Winston Churchill School

Julie Salter-Keane, Community Projects Manager, Irfan Akram, Transportation Planner, Dillon Consulting Limited, and Ian Semple, Manager of Service Development, Transportations Services, were in attendance.

- Renaming Napier Street – there are other streets in Kingston with the same names – why change Napier Street?
- Can’t Fire & Rescue use GPS coordinates to find houses?
- It takes a lot of money to convert the road to a park. Could the City buy other land and have different styles of parks (i.e. green park and other half of park could be play space).
- The corner of Brock/MacDonnell Streets is busy with a daycare and people parking there.
  Response: Irfan studied the traffic in this location and determined that speed humps, 2-way traffic controls or traffic detouring were not required.
- The original option was to close Napier Street to gain more green space – by leaving the sidewalk, asphalt, etc. is not making it more green
- Who is going to maintain the asphalt (i.e. basketball court, etc.)?
- Councilor Neill indicated that the ‘Cul-de-Sac’ option is a ‘throw away option’.
- Due to the Procedural By-Law, the November 2016 Council motion cannot be reconsidered for 1 year (until November 2017).
- This area was quiet for a while and now the area is full of cars.
  Response: Ian Semple advised that there is parking spillover from other residential areas. Area ‘B’ (Queen’s, KGH) has pushed commuter parking. Commuters will find the free parking then walk, bike or get picked and then go to work. Area ‘G’ is a future parking area. There is still sufficient capacity to parking therefore this area is not yet required.
- What point is the parking at saturation?
  Response: The public and Council comments assist us with this. This summer mapping around KGH, SLC, Queen’s, etc. will be completed. There are a number of factors that account when restrictions are implemented.
- 244 Mack Street owners – extend the length of their driveway – snow removal is a concern; remove the cul-de-sac option; need drainage; fencing; turn around area; tax implication questions; not concerned with leaving asphalt – kids can
ride bikes, scooters, etc. on it. Would like to have a path to the community garden. Is it worth it? Or take $700k and make a phenomenal park using the existing conditions with no changes?

- Councilor Neill advised everyone that there is no capital money for any of this proposed work.
- Closing Napier Street will be a positive outcome since the number of accidents on the corner of Napier and Mack will decrease.
- If Napier Street is closed off alternate arrangements for parking will be made with the affected property owners.
- From a safety point of view – it is better/safer for the children playing in Churchill Park if the road was closed and the park was enlarged.
- Have Churchill Park expand onto Napier Street and that would give a feeling of enlargement
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