DECISION/DIRECTION NOTE

Title: Syme's Bridge Closure to Vehicular Traffic

Date Prepared: September 8, 2020

Report To: Committee of the Whole

Councillor and Role: Councillor Ian Froude, Public Works & Sustainability

Ward: N/A

Decision/Direction Required:

Council Decision is required regarding closure of Syme's Bridge to vehicular traffic. If possible convert the bridge to pedestrian only until such time that it requires removal due to safety concerns.

Vehicular turning areas will need to be created to facilitate the bridge closure. Construction of the vehicular turning areas will require placement of fill in select areas of the floodplain.

Coucil Decision is also required to allow development in the floodplain for the areas indicated by the enclosed plan.

Discussion – Background and Current Status:

Historic records indicate Symes Bridge has existed in some form since at least 1909, some structures may even pre-date this timeframe. Symes Bridge as it currently exists was constructed in the 1950's, and received major rehabilitation works in 1980. Over the past 40 years it has received various rehabilitation works to extend its service life. However, it is nearing its service life and will require major works in the coming years if it is to remain in operation.

Annual inspections indicate continued deterioration of Symes Bridge. In 2017 a weight restriction was posted for the bridge, limiting vehicular usage to include only those vehicles weighing less than 5 tonnes.

The bridge has received numerous temporary closures due to flooding in recent history. The most recent temporary closure was May 30, 2018. One of the more notable closures was during Hurricane Igor, when the Waterford River overtopped Symes Bridge. This indicates that any rehabilitation of the existing structure will require review of its hydraulics, and possible complete replacement to improve its flow characteristics. Alternately, a complete removal of the structure can be considered, as this would eliminate flow restrictions in that area.

Traffic analysis by our Transportation Group indicates traffic volumes using the bridge are low. Other bridges crossing the Waterford River in the area include Blackhead Road and Waterford Lane. These are approximately 900m and 1400m from the Symes Bridge crossing, respectively. The Blackhead Road and Waterford Lane crossings see more traffic volumes, when compared to the Symes Bridge crossing.

The deteriorating condition of the Symes Bridge along with its problematic flow characteristics point to a need to completely replace the bridge, rather than rehabilitate it. However, considering the relatively low traffic volumes using Symes Bridge, this points to a need to completely remove the structure, rather than spend capital funds on its replacement.

A concept plan has been developed to illustrate closure of the bridge to vehicular traffic. A copy of the concept plan is included with this decision/direction note. Turnaround areas are being proposed for each side of the bridge, for vehicular traffic including Public Works, Waste Management, and Emergency Services vehicles. The bridge itself would remain in place as a pedestrian bridge until such time that it requires removal due to further deterioration making it unsafe. Construction of the proposed vehicular turning areas will require placement of fill in select areas of the floodplain. The City's Public Works Department and St. John's Regional Fire Department (SJRFD) have reviewed the concept and are agreeable to the planned closure and proposed vehicle turn around areas.

Anticipated timeline for the proposed bridge closure, would see the necessary vehicular turnaround areas constructed in Spring/Summer of 2021 after gaining necessary municipal, provincial and federal approvals, followed by closure of the bridge.

Key Considerations/Implications:

1. Budget/Financial Implications:

   Estimated costs associated with the proposed closure of the bridge, and construction of the vehicular turnaround areas amounts to approximately $118,000 (plus HST), currently budgeted under the 2019 Bridge Rehabilitation Program. Closing the bridge at this time would avoid costs associated with a complete replacement, which could be in the range of $1M.

2. Partners or Other Stakeholders:

   Local area residents Symes Bridge Road and Cousens Place
   St. Mary's Elementary School
   Public Works
   SJRFD

3. Alignment with Strategic Directions/Adopted Plans:

Supports directions to be financially accountable and to improve safety for all users on a well-maintained street network

4. Legal or Policy Implications:

   N/A

5. Privacy Implications:

   N/A

6. Engagement and Communications Considerations:

   Local area residents on Symes Bridge Road and Cousens Place will be notified of the purpose and plans for the closure and changes to the area. St. Mary's Elementary School will receive notification which can be shared with parents and visitors to the school who may currently use the bridge. Public notices will be posted on the City website prior to any planned closure of Symes Bridge. The City's Public Works Department, Transportation Division, and SJRFD have already been consulted regarding the planned closure.

7. Human Resource Implications:

   N/A

8. Procurement Implications:

   N/A

9. Information Technology Implications:

   N/A

10. Other Implications:

    While the intention is to leave the bridge in place to act as a pesdestrian structure as long it is safe, subsequent review by applicable Provincial and Federal Departments may require additional measures including complete removal of the structure depending on possible flow restrictions created by the fill placed for the turn-a-rounds.

Recommendation:
That Council grant approval to close Syme's Bridge to vehicular traffic. If possible convert the bridge to pedestrian only until such time that it requires removal due to safety concerns. That Council also grant approval for development in the floodplain for the required turn-a-round

areas.

Prepared by:

_____
Mark White, P. Eng.
Manager, Construction Engineering

Approved by:

_____
Scott Winsor, P. Eng.
Director of Engineering

Approved by:

_____
Jason Sinyard, P. Eng., MBA
Deputy City Manager

Report Approval Details

Document Title:	Syme's Bridge Closure to Vehicular Traffic.docx
Attachments:	- Syme's Bridge at Waterford River - Turn-a-round Drawing.pdf
Final Approval Date:	Sep 9, 2020

This report and all of its attachments were approved and signed as outlined below:

Scott Winsor - Sep 8, 2020 - 2:58 PM

Jason Sinyard - Sep 9, 2020 - 10:58 AM