



September 22, 2022

Lyndon Kowch, BES, CRS
Manager of Operations
Municipality of North Perth
330 Wallace Avenue North
Listowel, ON · N4W 1L3

**Re: Review of Pilot Project
Main/Wallace Intersection, Listowel**

Dear Lyndon,

This letter is provided as a summary of our findings on the operation of the pilot project at the Main/Wallace intersection in Listowel.

Executive Summary

In August of 2021, a pilot project was implemented at the Main/Wallace intersection to ease congestion in the core of Listowel. The intersection is known to carry high volumes of traffic throughout the day including many trucks and queuing from the intersection interferes with traffic operations along Main Street in both directions and on Wallace Street North. The pilot project included the following changes:

- The section of Wallace Avenue South between Main Street and Elma Street was converted to one-way southbound and a northbound lane for emergency vehicles was created
- The signal timing at the Main/Wallace intersection was reprogrammed to add time to Wallace Avenue North and to Main Street
- Westbound left turns at the intersection were restricted at all times
- The westbound stop bar at the intersection was moved closer to the intersection and the east side pedestrian crossing was removed
- Eastbound right turns at the intersection were restricted for trucks
- The southbound stop bar at the intersection was moved further from the intersection
- Several parking spaces were removed on the south side of Main Street – five east of the intersection and two west of the intersection. Three of the five parking spaces that were removed on the east side of the intersection were reinstated later in the pilot project. The accessible parking space that was initially relocated on the west side of the intersection was reinstated as the space closest to Wallace Avenue.
- The Wallace/Elma intersection was converted to all-way stop control

The traffic data collected before and after the pilot project was implemented confirms that the modifications do reduce queuing and provide better traffic operations through the intersection. However, the restriction on traffic wanting to travel northbound on Wallace Street South introduces delays for residents in the southern parts of Listowel.

It is our recommendation based on the review of the data and the feedback from residents and businesses, and considering that Elma Street will be reconstructed and at least partially closed in 2023, that the one-way conversion of Wallace Street South part of the pilot project be removed and that the east side crosswalk at the intersection be reinstated.

A number of elements of the pilot project should remain that helped improve the transportation network in the area including the parking spaces that were removed on Main Street, the eastbound right turn restriction for trucks, the westbound left turn restriction, the setback of the southbound stop bar at the intersection, and the installation of all-way stop control at the Wallace/Elma intersection. In addition, we recommend that council consider:

1. removing one more parking space on the south side of Main Street just west of the Davidson Avenue intersection to improve visibility for turning traffic, and
2. that the truck route that is being developed as part of the Municipality's Transportation Master Plan be prioritized to provide alternative routing options for trucks outside of the downtown core of Listowel.

Further details are provided below.

Background

In August of 2021, the Main/Wallace intersection was modified using temporary materials on a trial basis to see if the intersection operations could be improved to relieve some of the congestion in the downtown core of Listowel and what the impacts would be elsewhere in the transportation network. The pilot project was implemented with the support of Council and after numerous discussions with stakeholders in the area. The pilot project includes the following modifications in and around the intersection:

- Wallace Avenue South between Main Street and Elma Street was converted to one-way southbound. An emergency northbound lane was created for fire trucks.
- Signal timing previously allocated to Wallace Avenue South was reallocated to Main Street and Wallace Avenue North traffic at the intersection.
- Westbound left turns from Main Street East to Wallace Avenue South were restricted. The Westbound stop bar was moved up and the east leg pedestrian crossing was removed.
- Eastbound right turns from Main Street West to Wallace Avenue South were restricted for trucks.



- The southbound stop bar for through and left turning vehicles was moved back to create more space for trucks turning from Main Street.
- The Wallace/Elma intersection was converted to all-way stop control.
- Seven parking spaces were removed from the south side of Main Street – two west of the intersection and five east of the intersection. The accessible space that was removed west of the intersection was relocated further west.

On October 18, 2021, a presentation was made to Council outlining the project, the before and after data that had been collected and the feedback received from stakeholders through a variety of channels including a virtual Public Information Centre (PIC) held on October 4, 2021.

Generally, the data provides the following insight into the pilot project:

- Traffic volumes measured in August 2021 at the intersection are similar in the peak hours and over the six hours of survey to volumes measured in May and August of 2018. Given that there is no traffic approaching the intersection from Wallace Avenue South, traffic volumes on Main Street and on Wallace Avenue North have increased by 10-15%.
- Truck percentages through the intersection in 2021 are similar to the counts in 2018.
- Traffic from Wallace Avenue South is dispersing in the network to the north with much of the traffic being added to Livingstone, Wellington and Davidson Avenues.
- Maximum queues at the intersection decreased by 15-60%.
- Total queues at the intersection decreased by 15-50%.

Feedback was received through a public survey, a survey of local businesses, direct contact with staff and Council, and from the PIC. There were numerous comments about the improved operation of the intersection, however, several concerns were also raised. The majority of the concerns focussed in the following areas:

- Delays for traffic travelling from Wallace Avenue South and difficulty turning onto Main Street, in particular at Wellington Avenue South.
- Removal of on-street parking, in particular the accessible space which was regularly used by customers of a nearby business.
- Removal of the east side pedestrian crossing and long crossing times for pedestrians needing to cross multiple legs of the intersection.
- Elma Street needing to be improved.

After discussing the preliminary results with staff and Council, the decision of Council was to extend the pilot project through the winter to test the materials and some additional changes to the project, which were made to address the concerns raised in the fall of 2021. The changes included:

- Three of the on-street parking spaces on the east side of the intersection were reinstated.



- The closest parking space on the south side of Main Street west of the intersection was converted to an accessible space.
- The timing of the signal was modified to improve the crossing times for pedestrians.
- Northbound left turns were restricted at the Main/Wellington intersection during peak periods.
- A secondary connection from Elma Street was provided to the chiropractor parking lot at the northeast corner of Wallace/Elma.

Spring 2022 Consultation

In the spring of 2022, another round of consultation was undertaken through in person public information centres in the afternoon, after work and evening, and written feedback gathered from both residents and businesses in the core of Listowel. Some key feedback gathered through the spring consultation includes the following:

- About 75% of about 50 residents who provided written feedback are in favour of taking out the pilot project. Most of these residents live in the south part of Listowel.
- About 25% of the residents who provided written feedback are in favour of making the pilot project permanent.
- Six businesses in the core provided written feedback – half were in favour of removing the pilot project and half would like it to be made permanent until a more long-term solution to the core congestion can be implemented.
- Most people expressed support for the all-way stop at Wallace/Elma as a way of assigning right-of-way for all users including pedestrians.
- Many people mentioned the positive benefits of the eastbound right turn restriction for trucks and the westbound left turn restriction for all vehicles at the Main/Wallace intersection.
- There is broad support for the truck route as a tool to reduce congestion in the core of Listowel.
- There continues to be a lot of concern from residents in the southern part of Listowel with the delays in getting to the northern parts of town and the difficulty crossing Main Street.
- Access to the buildings on the southeast block of the Main/Wallace intersection continues to be a challenge with the project.
- Can a northbound lane be reinstated on Wallace Avenue South that only allows right turns to Main Street (i.e. no through movement to Wallace Avenue North or left turns to Main Street)?

Other comments provided about the pilot project include:

- People have been seen driving the wrong way on Wallace Street South in the one-way part.



- There is a parking space on the south side of Main Street just west of Davidson Avenue that should be removed because it is making it difficult to see oncoming eastbound traffic.
- Elma Street is in need of repair.
- The pilot project is lasting too long.
- Municipality should continue to look into acquiring properties at the southwest corner of the Main/Wallace intersection so that Wallace Avenue South can be realigned with Wallace Avenue North.

Additionally, the Municipality plans to reconstruct Elma Street between Wallace Avenue South and Victoria Avenue in 2023. Elma Street would have to be closed in one or both directions for periods of time during the construction, which would force additional diversions for traffic from the southern parts of Listowel.

Assessment

Based on all the data collected, the feedback received and the many discussions with staff, residents and business owners in the area, we feel there are three possible options to proceed with.

1. Convert the fire lane back to a northbound lane and allow only northbound right turns to Main Street (no through movement or left turn in the northbound direction). **This option is not recommended.** Staff and the consultant team are concerned about the limited sight distance at the intersection for the northbound right turn movement and the level of compliance for a restriction on northbound through and left turn movements.
2. Make the pilot project permanent. If this option is chosen, the materials used to implement the pilot project and the temporary signage should be updated to permanent materials. In addition, if this option is chosen, it is recommended that staff consider the potential to convert the Main/Davidson intersection to traffic signal control.
3. Take the pilot project out. It is likely that many people who are in favour of keeping the pilot project permanently did not participate in the consultation for the project; as a result, the removal of the pilot project is likely to also cause commentary among residents and businesses.

No matter which option is chosen, it is recommended that certain changes introduced as part of the pilot project remain. At the Main/Wallace intersection, four parking spaces should be permanently removed on the south side of Main Street – the two just west of the intersection and the two end spaces out of the five that were removed just east of the intersection. The removal of these parking spaces creates better space for traffic to flow through the intersection, in particular trucks, and improves visibility for side street traffic. The accessible space that was



shifted to the west should remain. In addition, the stop bar for southbound through and left turning traffic should remain shifted back from the intersection to create additional space for trucks to turn. The eastbound right turn restriction for trucks and the westbound left turn restriction for all vehicles should also remain.

The intersection at Wallace/Elma is operating well as an all-way stop controlled intersection and should remain. Several stakeholders mentioned the benefits for assigning right of way and providing access to pedestrians to cross. The signage at this intersection should be upgraded to permanent signage and marked crosswalks should be provided at the intersection along with accessible infrastructure including depressed curbs and tactile plates. This work could be done with the upcoming Elma Street reconstruction project.

In addition, we encourage Council to consider removing the one parking space on Main Street just west of Davidson Avenue to improve the visibility for turning traffic.

Given the upcoming planned reconstruction of Elma Street and all of the data and feedback reviewed to date, it is the recommendation of the consultant team that the one-way conversion of Wallace Street South part of the pilot project be removed and that the east side pedestrian crossing at the Main/Wallace intersection be reinstated. It would be helpful to collect updated traffic count data at the intersection in the spring of 2023 before the Elma Street reconstruction.

The truck route study together with the Transportation Master Plan has not yet come to Council for review and approval, however, the consultant team for those projects have provided a Technical Memorandum outlining the preferred route, the estimated costs and the potential implementation timing, which we have reviewed. We recommend that Council prioritize the projects needed to implement the truck route in order to provide alternative routing for trucks outside the downtown core of Listowel.

If you have any questions about the information presented in this letter, please contact me to discuss.

Sincerely,



Julia Salvini, MEng, PEng
President

Cc: Bruce Potter, B. M. Ross and Associates Limited

