

**Priorities Committee Meeting\_Mar14\_2017**

---

**STRATEGIC INITIATIVE AND UPDATE****Traffic Circle Update****Report Purpose**

To provide the Priorities Committee with an update on the traffic management and safety improvements at the Sherwood Drive and Broadmoor Boulevard traffic circle.

**Council History**

July 14, 2015 – The Priorities Committee was provided with the Strategic Initiative related to the improvement of the Sherwood Drive and Broadmoor Boulevard traffic circle.

**Strategic Plan Priority Areas**

**Economy:** Interim safety measures improve safety and maintain efficient municipal infrastructure prior to a reconstruction being required due to capacity

**Governance:** n/a

**Social:** Improved traffic safety for all road users

**Culture:** n/a

**Environment:** n/a

**Other Impacts**

**Policy:** SER-009-017 Traffic Control Devices

**Legislative/Legal:** n/a

**Interdepartmental:** Capital Planning and Construction

**Summary**

The attached report reviews the impact of the short-term traffic safety initiatives that were implemented between September 2015 and May 2016. Based upon a thorough engineering analysis completed by Alterra Engineering and significant public engagement, the traffic circle was evaluated for potential safety improvements. Through this evaluation, several improvement options were developed that ranged from short-term to long-term solutions. Based upon the study's capacity evaluation, a long-term reconstruction was not required and an interim measure could be implemented to address the issues raised in the study at this time.

The selected interim improvement was implemented in stages, with the addition of directional signs and lane markings, as well as improved approach signs. Additional improvements in sightlines, upsized yield signs, and flashing amber beacons to educate and inform drivers of the intersection and the appropriate and corresponding rules of the road. In order to assess the impact of the changes, a one year crash analysis was performed along with an assessment of driver feedback. Based upon crash data, the traffic changes are showing an improving rate of collisions over the later months of the implementation year over year. Initial months after the first stage of the implementation showed an increase in the frequency of crashes, however a measureable change in the type of crash that was being reported. In the "before" scenario, the number of sideswipe and crashes inside of the circle are more apparent. In the "after" scenario, crashes moved to outside of the circle and into the approach legs, showing an improved yielding to vehicles within the circle behaviour. An increase in crashes is to be expected with the alteration of traffic patterns, due to driver understanding and expectation.

Since the improvements and alterations to the intersection were finalized in May 2016, both the number of crashes and concerns raised by residents has reduced significantly, with only four calls requesting clarification and expressing concern, and a marked reduction in crashes from year-to-year. In transportation engineering, a three-year crash comparison is recommended due to annual fluctuations and the known learning curve in the month's right after traffic alterations. This one-year crash evaluation is not statistically relevant and it is recommended that the changes remain in place at this time to continue to monitor and evaluate the trending improvement in traffic safety that has been observed since the final changes were made in May 2016.

Based on the reducing trend in collisions and the improved safety shown in and around the intersection, it is recommended that the 2015 alterations to the traffic circle remain in place until such time that the traffic circle requires rehabilitation construction or improvement, due to capacity and level of service deficiencies according to the Design and Construction Standards. In the interim, safety reviews including annual collision evaluations are to be performed and published to the website and provided to Council for information.

### **Communication Plan**

The website will be updated to include any changes and continue to provide drivers with educational tools on the proper use of this and other traffic circles. Annual traffic crash reviews are to be conducted and published to the website and provided to Council for information.

### **Enclosure**

- 1 Traffic Safety Evaluation – Sherwood Drive and Broadmoor Boulevard