To: Chair and Members
Public Works, Infrastructure & Environment Committee
Outstanding Business Item AA and Issue: Petition for Road Improvements at the Junction of Centre Road and the 14th Concession
PW05140

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Re: Petition for Road Improvements at the Junction of Centre Road and the 14th Concession (PW05140)

Council Direction:

In response to previous direction to conduct an operational review of the intersection of Centre Road and the 14th Concession (south intersection) the following report is provided. A petition was received from residents of the Mountsberg Community requesting improvements to the intersection citing primary concerns of a lack of shoulders, visibility obstruction due to vegetation, stop sign compliance on 14th Concession, volume and speed of traffic, and road use (i.e. commuters and farm vehicles).

Information:

The following summarizes a physical description of existing conditions at the intersection:

*The intersection is a T type intersection wherein vehicles westbound on the 14th Concession must stop for traffic that is northbound and southbound on Centre Road and the 14th Concession intersects with Centre Road at the beginning of a horizontal curve.*

*The speed limit on Centre Road from the 14th Concession southerly is 70 km/h. The speed limit changes to 60 km/h north of the 14th Concession as the function of the road and the surrounding conditions/environment changes and warrants a lower speed limit. As previously mentioned, the 14th Concession intersects with Centre Road at the beginning of a horizontal curve. It is not favourable to change the posted speed limit in a curved portion of a roadway as it is important for the motorist to concentrate on driving through the curve rather than a change in the posted speed limit. It is common practice to extend the speed limits through the curve and post the new speed limit on a tangent section of roadway. Posted speeds are therefore different in each direction. The speed limit for northbound vehicles through the curve is posted at 70 km/hr while the posted speed for southbound vehicles through the curve is 60 km/hr. Please find a schematic diagram that illustrates the limits on the speed zones attached to the report.*
When stopped at the stop bar on the 14th Concession visibility to the south is excellent. Visibility to the north is roughly 85 metres.

There are existing Curve Warning signs with 40 km/hr speed advisory tabs north and south of the intersection and chevrons are installed on the outside of the curve for both directions.

The width of the road through the curve varies between 5.8 and 6.4 meters. Shoulder width also varies from 0.5 metres to virtually no shoulder. The painted stop bar on the 14th Concession is faded, however the stop sign is clearly visible to approaching vehicles and is the appropriate size based on the posted speed limit.

The vegetation is very dense on Centre Road in this area. A number of existing signs are obscured by the vegetation.

Two-way traffic volumes on Centre Road in the area of the 14th Concession are roughly 500 vehicles per day. A 24 hour speed study was conducted on September 12th and September 13th on Centre Road between the north and south junctions of the 14th Concession. The 85th percentile speed was 58 km/hr in both the northbound and southbound directions. The 85th percentile speed is the speed at which 85% of the motorists are travelling at or below.

A review of the collision history revealed there have been three reported collisions, including one fatal collision, at this intersection over the last 5 years. The fatal collision involved a northbound vehicle and a pedestrian; alcohol was a factor and the pedestrian was walking on the side of the road. Very few details regarding the collision are available as it was a hit and run. The second collision also involved a northbound vehicle. The driver lost control on the curve due to ice and snow. The third collision involved two southbound vehicles. The first vehicle was waiting to turn left onto the 14th Concession and the second vehicle rear ended him.

To address the concerns outlined in the submitted petition, the following will be implemented:

- Trim back the vegetation in the area to maximize visibility for motorists on the 14th Concession and visibility of the signage in the area.
- Increase the size of the chevrons on the outside of the curve for additional guidance.
- Request police presence for speed enforcement and stop sign compliance in the area.
- Repaint the stop bar on the 14th Concession to enhance the presence of the existing stop sign.
- Paint a yellow centerline on Centre Road around the curve from the 14th Concession (south intersection) to the 14th Concession (north intersection).

Sufficient funds are available in regular current accounts to cover the cost of manufacturing, erecting and maintaining the recommended signs, painting the centreline and trimming the vegetation.
Staff believes the above recommendations will improve traffic operations at the intersection and address the concerns outlined in the petition submitted.

Scott Stewart, C.E.T.
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Legal Speed Limits

- 60 km/hr speed limit
- 70 km/hr speed limit

Posted Speed Limits *(Northbound and Southbound at differing speeds)*

- 60 km/hr speed limit
- 70 km/hr speed limit