

Identifying Signage Issues in the Rural Corridors of Ottawa

Written By:



Discipline: Civil - Transportation Engineering

Date:



Proposal

Introduction:

The City of Ottawa was amalgamated in 2001 and received 11 rural municipalities around the City's initial core.¹ While this was a positive movement, there have been many rural corridors that since amalgamation were not updated as per the Ontario Traffic Manual (OTM) Book 5 (Regulatory Signs) and Book 6 (Warning Signs). Beginning the process to update these corridors, I had to vet a location that needed to be corrected and fixed according to the specifications. My first corridor update came by complaint process (this is where a citizen sends a service request in for City investigation). It was sited that the person was driving along the corridor and nearly left the road twice due to incoming curves that were not properly signed. With this information in mind, it is imperative to indicate that there are other ways a location can be vetted. It is mainly prioritized based on complaint process but can also be driven to investigation by number of collisions, and road classification. Because this location was brought to the municipality's attention, I had a due diligence to investigate this corridor and complete the proper studies to update the segment as per the OTM treatments.

Body:

The **problem** that will be addressed in this Technology Report is how to identify and correct locations along a rural corridor within the City of Ottawa that are missing appropriate signage which are problematic to drivers and have the treatments updated to compare to the OTM Book 5: Regulatory Signs and OTM Book 6: Warning Signs standards.

The **methodology** in this Technology Report will be comprised of the following:

- Completing steps to a proper field investigation for comparative notes
- Researching signs from the OTM Books and how to apply them on the roadway based on the consistent traffic measurements that need to be taken
- Reviewing a curve and how to complete a ball bank study for speed assignment
- Calculating the Stopping Sight Distance (SSD) for certain signs due to limited sight distance
- Looking at the Intersection Sight Distance (ISD) for road users
- Anticipating locations for the School Bus Ahead Signs and how to vet the locations

This report will delve into the important details about what type of information is necessary to gather when completing the field investigation for the rural corridors. Typical notes will include what is existing in the field, such as: road widths along the segment, pavement structure, bridge structures, intersection design, current signage, and the profile changes along the corridor. Once the field investigation has been completed, I will give a quick overview about the OTM Books and how to find the appropriate signage that will be consistent with the standard treatments across Ontario. Some of the investigative techniques extend to completing

¹ Accessed on January 31, 2022. Ottawa. October 25, 2012. [Ottawa | The Canadian Encyclopedia](#)

necessary studies such as the Ball Bank Review. This study looks at the curvature of a singular profile along a road segment and will deduce what the advisory speed should be when navigating the curve. Other studies that this report will look at is how to calculate the Stopping Sight Distance (SSD) for specific warning and regulatory signage to be installed on the roadway. As well what Intersection Sight Distance (ISD) means to the road user and its application. Although most signs can be known by understanding the consistency in which signs should be found along a profile and with simple measurements, they can be installed. But not all signs are as easy as measuring the profile or reading through the manual to know their defining locations. For the 'School Bus Ahead' signs there needs to be more valuable communication with the schools in the area and what their catchments are for students. Therefore, my report will capture the ideology behind documenting current existing signage along the corridor and defining which proposed signage needs to be installed in a rural setting.

My **hypothesis** is that by the end of this process by implementing the correct warning and regulatory signage with the consistent application provided through the OTMs, drivers will be able to navigate Ottawa's rural segments successfully and confidently.