

2026-02-10
Project: 260027

Mack Shantz
Riverview Grain
106438 Southgate Road 10
Southgate ON

Dear Mr. Shantz:

**RE: ACCESS REVIEW BRIEF
RIVERVIEW GRAIN, 106438 SOUTHGATE ROAD 10, SOUTHGATE**

We have been retained by Riverview Grain to conduct an Access Review Brief in support of a site plan amendment for the existing site located at 106438 Southgate Road 10, in Southgate. The site location is shown in **Figure 1**. The site is currently an agricultural operation, and the proposed change is an additional grain elevator on site. This letter is a “desktop review” of the potential impacts on Southgate Road 10.

Southgate Road 10 is a Township Road that does not have a posted speed limit. The assumption is that a rural road without a posted speed limit has an assumed speed limit of 80 km/h. For the purposes of this review brief, the design speed of Southgate Road 10 is assumed to be 100 km/h (20 km/h over the speed limit).

Sight Distance

As this review brief was conducted as a desktop review, a field measurement of sight distance was not undertaken. However, a review of photographs at the existing driveway location shows that Southgate Road 10 is a very straight and relatively flat road. Intersection Sight Distance, as defined in the Transportation Association of Canada’s Geometric Design Guide for Canadian Roads (TAC Guide) indicates that the design distance for vehicles making a left-turn onto the main road is 210 metres for passenger cars and 320 metres for combination trucks. To the east, Southgate Road 10 is straight and flat and does not have any significant crests or valleys in the road profile which blocks the ability to see oncoming vehicles. To the east, the closest crest and valley which could potentially obstruct view of an oncoming vehicle is over 400 metres from the driveway. It is noted that the vertical elevation change may not be significant enough to actually prevent sight of an oncoming vehicle, but if it did, it is still more than enough to meet Intersection Sight Distance requirements.

Left-Turn Lane Warrants

As the volumes on Southgate Road 10 were not counted in this desktop review, the process for determining a left-turn lane was reviewed to determine what the volumes need to be before a left-turn lane is warranted.

Left-turn Lane Warrants are defined by the Ministry of Transportation's Supplement to the TAC Guide and are given in nomographs which plot advancing volume vs opposing volume on the main road, and shift the warrant thresholds depending on the percentage of left-turning vehicles in the advancing volume, to the nearest 5%. For example, if the percentage of left-turning vehicles is 5% in the advancing volume, the nomograph shown in **Figure 2** would be used. In this case, both the advancing volume (westbound) and the opposing volume (eastbound) on Southgate Road 10 would need to be 350 vehicles per hour per direction, or just less than 6 vehicles per minute. At this level, of traffic, to reach 5% of the advancing volume, the left-turning volume into the site would need to be 17 vehicles per hour. However, experience in similar areas of southwestern Ontario show that volumes on rural, local roads do not experience volumes this high.

The left-turn warrants do have lower thresholds to be considered warranted, if the percentage of left-turning vehicles in the advancing volume is higher. The nomograph shown at the bottom of **Figure 2** is for the situation where the percentage of left-turning vehicles is 40%. In this case, the advancing and opposing volumes would only need to be about 180 - 190 vehicles per hour. However, the higher percentage of left-turns in the advancing volume would need to be in the range of 72 – 76 vehicles per hour, which is similarly unlikely to occur at this site.

Conclusion

The thresholds for warranted improvements are likely far higher than is reasonably expected to occur on the subject site and on Southgate Road 10. Therefore, no improvements to this site access are recommended due to the addition of the grain elevator.

I trust that this information is sufficient. Please contact me if you require additional information.

Yours very truly,

PARADIGM TRANSPORTATION SOLUTIONS LIMITED

Matt Brouwer

P.Eng.

Operations Principal, Technology and Innovation

Senior Project Manager



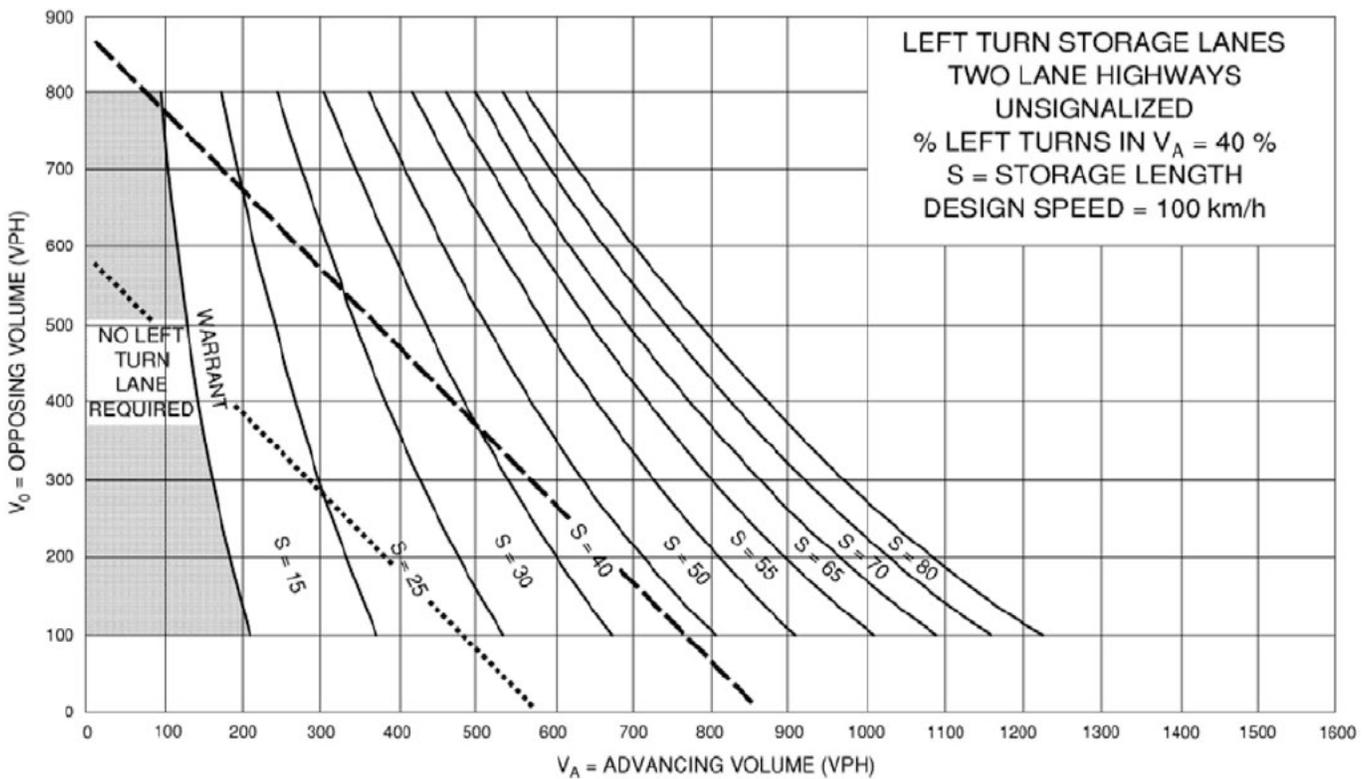
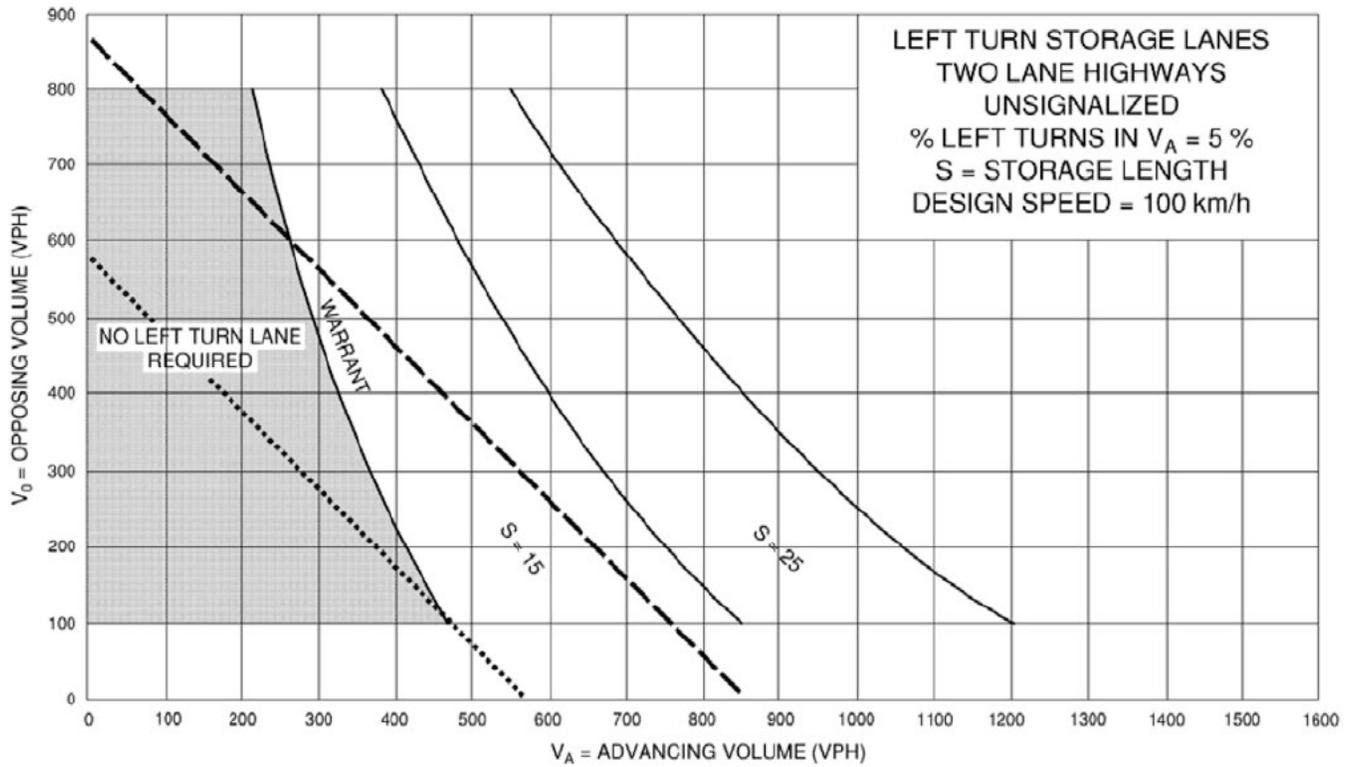


Image source: Google Earth

Image © 2025 Airbus



Subject Site



Left-Turn Lane Warrant Nomograph Examples