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## **TECHNICAL MEMORANDUM**

**SUBJECT:** Rail Warrant Review

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This memorandum presents the railway crossing review and warrant analysis results associated with the review.

### **Railway Crossing Review – Warrants**

Road-rail crossings are evaluated based on an Exposure Index:

- Exposure Index (EI) = Annual Daily Traffic x No. of Trains
- if the EI exceeds 50,000, there is a warrant for gates
- if the EI exceeds 200,000, there is a warrant for a grade separation

#### Wilson Street and the CN tracks

Annual Daily Traffic = 15,000

No. of Trains = ~30

$EI = 15,000 \times 30 = 450,000$

The EI at this crossing is 450,000 or more than 2 times higher than the base line reference of 200,000. Therefore, the warrant at this location based on the EI is a grade separation.

#### County Road 4 and the CP tracks (near County Road 17)

Annual Daily Traffic = 5,000

No. of Trains = ~10

$EI = 5,000 \times 10 = 50,000$

The EI at this crossing is 50,000 or approximately the same as the base line reference of 50,000. Therefore, the warrant at this location based on the EI is gates.