

LRT Crossing Assessment Framework

On June 13, 2017, Council approved Integrated Infrastructure Services Report CR_4512 LRT Crossing Assessment Framework, which established the weighted criteria and process to guide objective decision-making on grade separations of current and future LRT projects.

Grade separation has the potential to offer reduced traffic congestion and shorter vehicle travel times in the short term. However, this must be balanced with the long term implications on the broader transportation network and other Council-approved policies, strategies and initiatives related to land-use and compact urban form.

The Institute of Transportation Engineers (ITE) developed a methodology to assess when LRT crossings should remain at-grade, grade-separated, or require additional analysis. The ITE graph suggests that a comparison of LRT crossing frequency to the worst case per-lane traffic volumes be used as a starting point.

The LRT Crossing Assessment Framework - Initial Screening Graph for the Metro and Capital Lines, located at the end of this attachment, contains the ITE graph overlaid with the City's existing and planned LRT crossings. Once intersections are plotted, any crossings that fall:

- to the left of the green line should remain at-grade;
- to the right of the yellow and red lines be grade-separated; and
- on or between the green and yellow lines require site-specific assessment



If a crossing location is selected for further assessment, options are developed for evaluation. Comparative analysis of the options is then completed using the following weighted criteria.

Criteria Category	Weighting
Accessibility <i>How the various transportation modes link between one another and with adjacent developments</i>	4
Network Operations <i>How the surrounding and broader transportation network is impacted.</i>	4
Urban Design & Social Environment <i>How the surrounding communities and stakeholders are impacted.</i>	4
Feasibility & Construction <i>Feasibility, cost and risk assessments.</i>	2