

Valley Line West LRT Noise Assessment

Edmonton

The Valley Line West Design

The Valley Line LRT is not the same as the current LRT in that it is an urban-style, low floor design. Noise generated by the LRT train itself is expected to be lower than vehicle traffic. Also, because of the Valley Line's urban nature, intersections will mostly be controlled with traffic signals instead of bells, gates and flashing lights.

Noise Guidelines

The Valley Line West is currently in the procurement phase. The successful contractor will be responsible for ensuring that all noise is compliant with the two applicable City of Edmonton bylaws during both design and construction:

- The Edmonton Community Standards Bylaw ([14600](#)) which addresses static noise sources like the Lewis Farms Maintenance Facility and traction power substations which provide power for the LRT.
- The Edmonton Urban Traffic Noise Policy ([C506A](#)) which addresses dynamic noise sources like vehicle traffic and LRT.

Noise levels exceeding the maximum limits laid out in these bylaws are subject to mitigation considerations.

Valley Line West Noise Study

In 2017, Valley Line West LRT project commissioned an updated noise study as part of the preliminary design update review. The study applied an industry standard practice to analyze the following data sets:

- Static noise levels for the future Lewis Farms Maintenance Facility and the traction power substations which were estimated based on similar LRT projects in Canada.
- Baseline dynamic noise levels (existing vehicle traffic) which were measured using 14 noise receptors along the alignment over a five day period.
- Projected dynamic noise levels (2047 vehicle traffic) which were developed using the City of Edmonton's traffic modelling data.
- LRT sound level data which was sourced from existing Edmonton LRT operations, as well as existing LRT operations from Houston, Texas, which runs a similar urban style line to the future Valley Line West LRT.

The results of the noise study indicate that the Valley Line West LRT project is expected to comply with Edmonton noise bylaws.