

REPORT

City of St. Albert

Neil Ross Road
Functional Alignment Study



APRIL 2022

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EXECUTIVE SUMMARY

The City of St. Albert commissioned this Functional Alignment Study (FAS) to finalize the alignment for Neil Ross Road, a crosstown roadway that will connect the future 127 Street to St. Albert Trail and Ray Gibbon Drive via the future Fowler Way. The development of the final alignment will support community growth and further establish the transportation network in the northeast corner of St. Albert. The corridor will provide a valuable connection between St. Albert and Sturgeon County. Associated Engineering partnered with Stantec and Thurber Engineering to complete the functional analysis and evaluation of a proposed alignment and conceptual design of Neil Ross Road.

The study's components involved an environmental overview, desktop geotechnical investigation, identification of utilities, and review of stormwater patterns in the area. This was completed in conjunction with the City of St. Albert, with Sturgeon County as part of the project team. Work included consultation with affected landowners whose land the proposed Neil Ross Road alignment would pass through to inform them of the planned roadway and gather feedback on the proposed alignment.

Neil Ross Road is proposed to be staged, with initial design as a two-lane divided Crosstown roadway that will expand to a four-lane cross-section, in line with the City of St. Albert Complete Streets Guidelines. The team also completed a traffic analysis of the road segment using Synchro to model the expected operations of Neil Ross Road. The results indicated that Neil Ross Road operates acceptably as a two-lane roadway through the horizon year of 2045. After 2045, it is recommended that Neil Ross Road be upgraded to a four-lane roadway when the volumes trigger the need for upgrades. This trigger is dependent on the volume growth rate, which is currently unknown past 2045 and will be dictated by development. The traffic forecast should be revisited during preliminary design to ensure that the latest traffic volumes and proposed geometric improvements remain accurate. The traffic analysis also highlighted operational deficiencies at the Neil Ross Road/Fowler Way and St. Albert Trail intersection (primarily the left-turning movement from Fowler Way) which have been addressed through the design of St. Albert Trail North Corridor Management Implementation design which is anticipated for construction in 2023.

The team reviewed design standards and provided recommendations on this project's most suitable parameters. The amount of right-of-way required by the alignment was also determined. A 'C' level cost estimate was produced for the design and construction of Neil Ross Road with two options:

- Staged construction as a two-lane roadway followed by expansion to four lanes: \$25,090,000 +/- 30%.
- Construction as a four-lane roadway initially: \$23,640,000 +/- 30%.

These totals are inclusive of costs for land acquisition, additional studies, all engineering and 10% contingency. The initial four-lane construction option is estimated to be about 6% less than the staged construction option. The proposed alignment is shown in the figure below with all four lanes constructed.

