



Atlantic Industries Limited

# PROJECT PROFILE



## 25 MSE Structural Walls for Edmonton mega-project

**23rd Avenue Interchange Project is one of Canada's  
most significant infrastructure upgrades**

When the City of Edmonton decided to undertake a major interchange project at the site of its busiest intersection – 23rd Avenue at Gateway Boulevard, serving over 100,000 vehicles a day – time and money were of the essence. AIL was awarded the contract to supply 25 AIL MSE Retaining Wall Systems to be constructed over a 14-month period. The walls were used primarily in fill applications to elevate 23rd Avenue and convert the level, signalled intersection into a split diamond interchange. The \$260-million-plus, four-year effort also included five bridges; roadway, railway and drainage construction and the re-alignment of major oil and gas pipelines.

### **Project at a glance:**

**Scope:** 25 MSE Precast Panel Walls

**Area:** 18,116 m<sup>2</sup>

**Clay Fill:** 500,000 m<sup>3</sup>

**Granular Fill:** 250,000 m<sup>3</sup>

**Finish:** Smooth, paint-ready

**Prime Consultant/Designer:** ISL Engineering  
and Land Services

**Sector:** Transportation

**Lead Contractor:** Peter Kiewit Sons Co.



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**Meeting unique challenges such as a high coulomb requirement.**

Our in-house engineering and technical teams worked closely with the general contractor and consultant to address some unique challenges. The most significant was in developing a concrete mix for the precast panels that would meet the project's high coulomb requirement. The mix design involved a specialized high-performance concrete that had a very low permeability. We also created a custom slope-topped design for the panels and custom extended soil reinforcement bar mat lengths for the abutment walls.

The 23rd Avenue Interchange Project represents one of Canada's more significant infrastructure upgrades and AIL is proud to have been selected as a project partner.

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