

Case Study



Edmonton Trail Asphalt Overlay, Calgary - 2021



Project:
Edmonton Trail Asphalt Overlay

Location:
Calgary, Alberta, Canada

Duration:
August 2021 (2-day production)

Contractor:
City of Calgary

Client/Owner:
City of Calgary

Surface Tech Product:
ACE XP

Project Scope & Objectives

In August 2021, the City of Calgary embarked on a critical project to repave a heavily trafficked section of Edmonton Trail, extending from McKnight Blvd. to 40th Ave. NE. This roadway was plagued by numerous cracks and potholes, leading to a poor driving experience and increased maintenance costs. Previous pavement remedies had failed to deliver lasting results, prompting the city to seek a more robust solution.

The City of Calgary's primary objective was to implement a durable, cost-effective pavement that could withstand the increasing traffic loads while minimizing future maintenance. *After evaluating various options, city engineers decided to utilize Surface Tech's ACE XP Polymer Fibers™, known for their ability to reinforce asphalt and extend pavement life.*

What We Did

Surface Tech played a pivotal role in the successful execution of this project, which included the following key activities:

Technology Integration:

The project involved a 60mm mill and inlay process, where the existing pavement was milled and replaced with a new asphalt mix. The selected mix was a 12.5mm Fine Graded Superpave 3B PG 70-31, reinforced with ACE XP Polymer Fibers™. Surface Tech provided hands-on training and certification for the City of Calgary Asphalt Plant team, ensuring the proper operation of dosing equipment and adherence to QC/QA procedures for incorporating ACE XP into the mix.

Production and Installation:

Over the course of two days, the project successfully repaved both the northbound and southbound lanes of Edmonton Trail. A total of 2,776.49 metric tonnes of ACE XP-reinforced asphalt were laid in a single lift, with the Surface Tech team overseeing the entire process to ensure smooth implementation.

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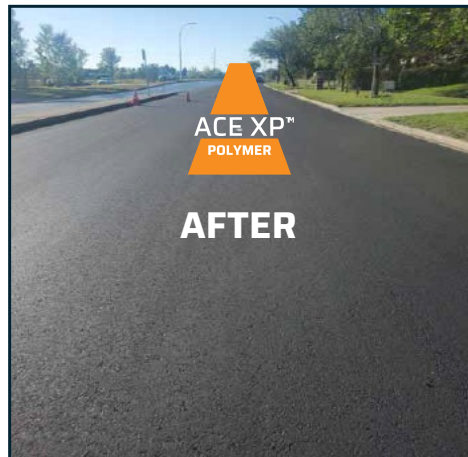


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Challenges Overcome

The main challenge was addressing the persistent cracking and pothole issues that had plagued Edmonton Trail despite previous interventions. Surface Tech's ACE XP provided a solution that significantly improved the pavement's strength and durability, even under heavy traffic conditions. The project was completed within a tight timeframe, with minimal disruption to the city's traffic flow.



Economic & Environmental Advantages

Economic Advantages:

By reinforcing the asphalt with ACE XP, the City of Calgary was able to extend the pavement's lifespan, thereby reducing future maintenance costs. The project demonstrated that ACE XP provided a more cost-effective solution compared to traditional binders and reinforcement techniques, offering long-term savings for the city.

Environmental Advantages:

The use of ACE XP contributed to a more sustainable infrastructure by reducing the frequency of repairs and replacements, which in turn lowered the environmental impact associated with construction activities. The technology also allowed for more efficient use of materials, aligning with the city's goals for sustainable development.

Client Feedback & Results

The project was met with positive feedback from all stakeholders. Michael Maas, Senior Paving Leader for the City of Calgary, reported no concerns from his team, noting that the mix compacted and set quicker than regular mixes, but overall, the feedback from the field was very positive. Alex Snell, Surface Tech's Western Canada Regional Technical Sales Representative, highlighted the significant improvement in pavement performance, stating, "The new pavement turned out to be a night-and-day difference with the added strength needed for the heavy traffic in the area."

The success of this project led the City of Calgary to incorporate ACE XP-reinforced asphalt into several other streets as part of its 2021 road rehabilitation program, with plans for additional projects in 2022.

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