Safer roads in any weather

VAISALA

Case Study

How the Streets Department of the City of Fort Collins uses mobile sensors and data visualization to proactively and efficiently maintain the city road network

The Streets Department of the City of Fort Collins, Colorado maintains the entire road network for the city. Known for their skill and dedication, the Department takes a data-driven approach to maintaining the roads and keeping them safe through the toughest winter storms

THE CHALLENGE:

New technology for faster insights

With their RWIS network in place, the Streets Department sought ways to access road condition information faster and get ahead of maintenance as soon as—or even before—the roads became hazardous.

The Department began evaluating the latest technology, knowing that quick access to accurate data equals faster, targeted maintenance.

THE APPROACH:

Mobile sensors and AI-powered visualization

The Department improved the winter maintenance decision-making process for supervisors as well as operators by integrating real-time data on weather and road conditions into their network.

To get network-wide road conditions, the Department installed Vaisala Mobile Detector MD30s on ten of their snowplows. The MD30 tracks data including surface status, temperature and friction as well as air conditions.

> *"We get almost 50 inches of snow plus thawing every winter, and that creates hazardous driving conditions. Vaisala's insight and onboard tools let us target treatments faster and meet our Levels of Service."*
>
> *Larry Schneider*
> *Director of Transportation Operations*

Front-facing video provides images of the road as the trucks complete their routes. Through an in-cab cell phone, the device identifies hazardous road conditions to aid Department supervisors in treatment decisions.

In addition, the Department has started to leverage Vaisala Wx Horizon. Wx Horizon is a new Vaisala solution that gives supervisors the forecast information they need to see not just when a storm is approaching, but how it is affecting road conditions throughout the city and precisely when the storm has passed.

Wx Horizon's powerful visualization tools driven by artificial intelligence (AI) show which roads are covered with snow and slush, for example, and which roads are still wet. This deep insight empowers the Department to deploy their fleet directly to the affected areas, resulting in safer roads in advance of hazardous conditions.

THE RESULTS:

Better decision making for safer roads

The Streets Department now enjoys an advanced road maintenance network, where operators and supervisors alike are able to maintain the roads proactively using the right material at the right time. Where once the Department deployed trucks throughout the city to assess road conditions, now operators can change their approach based on real-time road information.

With Wx Horizon's powerful data visualization, the Department can plan their road maintenance strategy more proactively and with far more accuracy — saving time and costs while keeping the roads safer throughout the storm.

The Transportation Department boasts more than safer, better maintained roads: They are able to attain high levels of service and make better decisions that benefit all modes of transportation, now and in the future.

Why Vaisala?

Vaisala's weather and environmental technologies take every measure for unrivaled road network awareness — keeping roadways safe and efficient in any season.

Our instruments and intelligence are built on 85+ years of innovation and are known as the gold standard for precision and reliability. We understand how accurate data and insights do even more by driving sustainable road operations and climate action. Our holistic approach provides customers with end-to-end simplicity, valuable partnership, and a comprehensive portfolio that is constantly evolving.

As recognized experts in transportation, we continue to channel our curiosity into new ways of making roadways safer and more efficient than ever.

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