



Profile

City of Edmonton
<https://www.edmonton.ca>



Edmonton's Park Road Services (PARS) maintains a road network of 10,600 kilometers, plus 5,300 kilometers of sidewalk.

Over 740 equipment units are employed for standard snow clearing, sanding, de-icing, sweeping, and pothole repair. More units are called in for major snow events.

Field work is performed by a City force and contractors who maintain routes provided by PARS.

Products Used:

GeoMedia Desktop with LRS
Report Designer for GeoMedia

City of Edmonton Produces Hard Copy Snow Plow Route Maps with Report Designer for GeoMedia

Solution makes it easier and faster to produce maps and instructions for maintenance crews, as conditions change and routes are optimized.

Edmonton, the capital city of Alberta, Canada, lies on the banks of the North Saskatchewan River, and is the center of a metropolitan region of over 1.3 million people, making it North America's most northerly city of that size.

As such, Edmonton experiences long, cold winters typically November through March when average lows commonly dip below -10° C with more than a meter of snowfall.

The City of Edmonton's 'Snow and Ice Control' budget for 2018 is over \$65 million*. Snow removal is a hot topic in this cold climate as councillors endeavour to balance the demands of citizens with budgetary constraints.

The Challenge

Until recently, PARS maintained snow plow routes in MicroStation® files and instructions in Excel® spreadsheets. To produce snow plow driver instructions, staff had to generate a map image of each route and collate them together with spreadsheet outputs, typically with a lot of copy and paste. It is a time consuming, labour intensive task, making it challenging to implement quick adjustments and route optimizations.

"Edmonton is subject to distracted driving laws, and requires hard copy instructions for various maintenance crews", says Michael Boychuk, of City Operations and the City's GeoEdmonton

Coordinator. "And sometimes, snow covers valuable assets, so we need to make sure our route books inform drivers about this, and other exceptional cases. We need a method for producing these that is straight forward, and enables us to make changes quickly and easily."

Project Objectives

- Implement a faster, more responsive method for generating snow plow driver route instructions.
- Enable route optimizations by maintaining them in a GIS that supports analysis.
- Reduce double entry by maintaining them in the same system as other relevant map features.

The Solution

In the autumn of 2017, City Operations launched a project to enhance their snow plow routes maintenance by moving them into their enterprise GIS, maintained with GeoMedia Desktop using their Linear Referencing (LRS) tools.

At that time, XtenGeo offered to demonstrate Report Designer for GeoMedia to Michael.

"When Perry showed me Report Designer I thought immediately that's what's missing in GeoMedia. To me the value was obvious, as I've used a GIS reporting tool before, and I knew we had multiple cases Report Designer would solve, specifically generating snow plow map books."

The City enlisted Report Designer as it provided a way to create route reports that include maps along with dynamic data tables, layouts conditional to route characteristics, and exception messages. "Once a report is created, you can easily re-run it with updated data. There's no collating or manual processing required" says Michael, "saving us a bunch of time and money on labour costs."

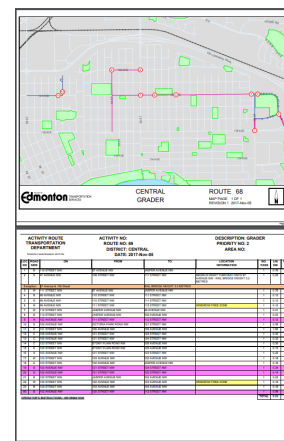
XtenGeo worked closely with City staff over the next few months, assisting them with the first draft in October, and then a handful of product enhancements throughout the winter.

Going Forward

Now that Park Road Services has a proven solution for snow plow routes, they are moving ahead with implementing the same type of solution for street cleaning, sanding, and de-icing routes.

Note

This document was produced with Report Designer for GeoMedia.



*https://www.edmonton.ca/city_government/budget_taxes/2016-2018-Operating-Budget.aspx

About XtenGeo

XtenGeo, operating out of Edmonton, Canada produces software enhancements for GeoMedia Desktop. It's flagship product Report Designer for GeoMedia empowers customers to produce rich and professional document outputs such as dynamic map sheets and map books, banners, labels, mail merge, validation reports, status reports and much more.