

The City of Burnaby, British Columbia



The City partnered with RouteSmart to manage a major operational change, modifying its weekly waste collection schedule to biweekly while switching its collection crews from a five-day work week to just four days.

OPTIMIZED COMPLEXITIES

Converting to a four-day schedule-based work system and a biweekly garbage pick-up system required the City to create new garbage day zones while balancing truck routes within those designated zones.

With RouteSmart for ArcGIS, the City found a solution that could handle the significant complexities within Burnaby's unique environment.



Different collection and bin types: Waste, recycling, compost for residential, commercial, institutional



Thousands of stops needing adjustment for exact pick-up location



Scheduling rules based on designated customer pick-up days



Pick-ups occurring in the main road vs. alternative designated laneways/alleys

RouteSmart has been an invaluable tool for us in planning collections.

- Erik Schmidt, Solid Waste Manager

IMPROVED EFFICIENCIES

In less than six months, RouteSmart helped the City create new, balanced routes and launch a full transformation of its waste collection operations.

LESS THAN
6 MONTHS
TRANSFORMATION

.5%
EFFICIENCY
IMPROVEMENT

BURNABY & ROUTESMART

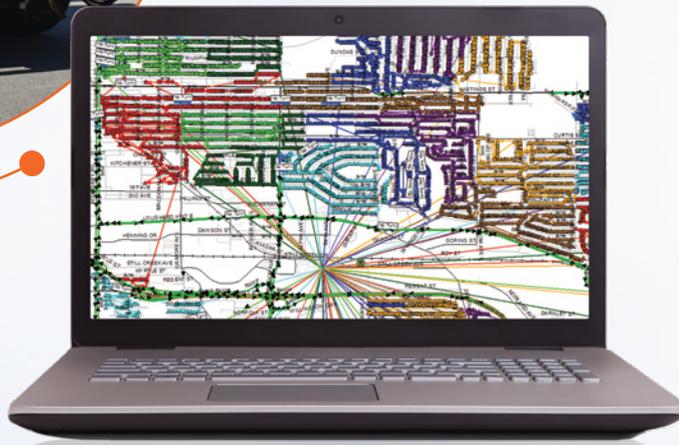
After conducting research on several route optimization solution providers and speaking with experts at Esri, the City chose RouteSmart Technologies to support its important optimization project.

Once procured, RouteSmart worked with the City to create balanced routes, provide them to the different solid waste teams and launch within just five months. The implementation included on-site training, software installation and data clean-up, taking a complicated process and making it easy to understand according to Chad Huntington, Manager of GIS and Engineering Systems for the City.

“A big benefit of RouteSmart is their ability to focus on specific goals and optimize towards those goals while developing new routes,” said Huntington. With the City’s primary goal of creating balanced routes to maximize efficiencies, Huntington knew RouteSmart’s dynamic solutions could solve what other routing tools could not – complex routing challenges.

With HERE data designed for RouteSmart, the City leveraged previously inaccessible information – like a street network that contained turn-by-turn attributes and restrictions, speed limits, average travel speeds – to better customize its route planning and avoid time-consuming maneuvers through narrow laneways.

Even after the initial implementation, Huntington notes that seeing the ongoing reliance on RouteSmart really speaks to the success of the project.



CONTINUED OPTIMIZATION

Upon completion of the optimization project, the City saw “huge savings” in the total weekly time to complete all waste collection. In large part, this success resulted from RouteSmart creating 80 balanced residential routes as opposed to the City creating them manually.

In addition to continuing to use RouteSmart as its routing partner for ongoing maintenance and recalculation of collection routes as customers get added or removed, the City also began looking for ways other departments can implement RouteSmart solutions to further enhance its services to the community.

RouteSmart’s dynamic solutions solved what other routing tools could not.

– Chad Huntington,
Manager of GIS and
Engineering Systems

ABOUT THE CITY OF BURNABY

The City of Burnaby, located in the Greater Vancouver area, provides curbside collection of garbage, recycling, yard trimmings and food scraps to a combined 70,000 single- and multi-family households as well as garbage and recycling collection to approximately 480 businesses and schools.

