

SWARCO McCain CANADA

FEATURED DEPLOYMENT

CITY OF WINNIPEG, MANITOBA

SWARCO McCain optimizes citywide traffic efficiency in the City of Winnipeg by modernizing the city's traffic management system

OVERVIEW

The City of Winnipeg partnered with SWARCO McCain and Innovative Traffic Solutions, Inc. to overhaul its central traffic management system. This upgrade consisted of a comprehensive revamp of the citywide cellular communications network, enhancing the central traffic management and preparing the city for future innovations and advancements.

LOCATION

Winnipeg, the capital of Manitoba, Canada, manages approximately 3 billion vehicle miles traveled annually. Unlike major cities in Canada, Winnipeg lacks a freeway network and instead relies on a dense network of regional and local streets to accommodate its high volume of vehicle activity. The city's street system is extensive, comprising 1,720 lane-kilometers of regional streets, 5,030 lane-kilometers of local streets, 900 lane-kilometers of alleys, and 196 bridges.

THE CHALLENGE

The City of Winnipeg's cellular modem communications infrastructure posed unique challenges. Winnipeg manages approximately 708 intersections, most of which operate on cellular communications networks. The challenge emerged during end-to-end testing phases between the central management system and field controllers. Multiple intersections presented a latency of up to 1,200 milliseconds, potentially leading to traffic management problems. The city needed a robust solution to mitigate these latency issues and ensure seamless communication between its central management system and field controllers.

SOLUTION

In the first deployment phase, SWARCO McCain, in close collaboration with Innovative Traffic Solutions, Inc., upgraded the City of Winnipeg with modern traffic solutions. The upgrade included the implementation of MyCity TMS¹ to support over 600 McCain 170 Controllers running the McCain 233 Intersection Control Software. Additionally, the project included supplying 250 new McCain 233 Intersection Control Software licenses to Winnipeg's traffic engineers. In the next phase, SWARCO McCain rolled out new features in its MyCity TMS software, such as the Polling Interval.

The Polling Interval feature enhanced traffic engineers' ability to adjust the frequency of poll requests from the central management system to each connected field intersection controller. In addition, SWARCO McCain and Innovative Traffic Solutions, Inc., provided intensive local and central software training with communication troubleshooting support, cellular modem configuration, and thorough testing on all implemented solutions.

SWARCO MCCAIN PRODUCT SOLUTIONS



MyCity TMS



McCain 170 Controllers



McCain 233 Intersection
Control Software

THE RESULTS

The integration of MyCity TMS in the City of Winnipeg enabled a seamless upgrade path to the latest ATC controller standard while continuing to support the city's legacy controllers. This deployment marked a significant step for Winnipeg to achieve a more robust and efficient traffic control system, paving the way for a smarter city.

RECENT UPDATES

The City of Winnipeg selected Innovative Traffic Solutions, Inc., as the expert provider to begin the supply of the latest McCain ATC 2070LX Controller platform, which is compatible with their existing 332 Cabinets and the future-ready ATC Cabinet Series.

¹Formerly known as Transparency® TMS