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Queue and Stopped Vehicle Advisory System (QSVAS) on Highway 405

- Thirty-five smartmicro UMRR-0C Type 42 sensors separated every 200 metres on 405 EB lanes in Niagara-on-the-Lake, ON Canada
- Four Variable Message Signs (VMS) at strategic locations to inform drivers of incidents/queues
- Communication infrastructure: modems, protocol converters and field data processing servers
- QSVAS dashboard, data aggregation and alert generation powered by Transnomis ITS Central ATMS



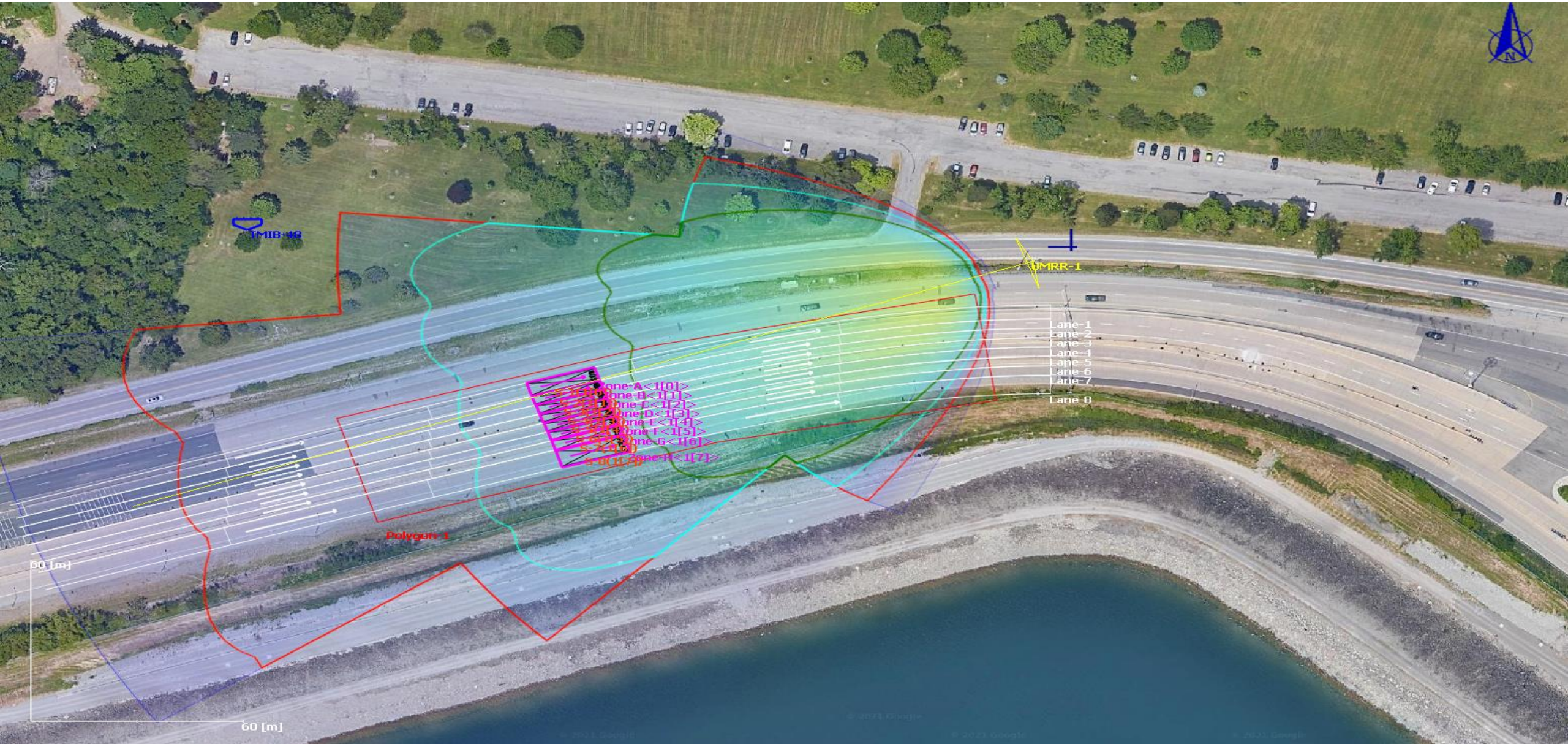
Application

The system provides detection of queued and stopped vehicles within the prescribed project limits of a highway corridor, thereby allowing for advance notice to be given to motorists of traffic conditions.

Project milestones

- Design began in January 2021
- Construction was completed in September 2021
- System is currently in operational test phase





Project schedule



The Queue Stopped Vehicle and Advisory System (QSVAS) entered a 6-month Operational Performance Test (OPT) phase on October 22, 2021, after successful completion of end-to-end system testing. QSVAS is currently performing within specified design outcomes and has been and will continue to be closely monitored until the end of the OPT phase on April 22, 2022. Upon successful completion of the OPT and system acceptance, QSVAS will enter a five-year operation and maintenance phase to be run by Black & McDonald.



Project scope

Black & McDonald designed and installed QSVAS conduits, hand wells and manholes, direct buried and base mounted poles, four VMS complete with footings and structures, power and communication cabinets, and other miscellaneous system components. All system commissioning and integration testing was done with MTO Compass.





Black & McDonald

Alicia Turner

Project Manager

31 Pullman Ct, Scarborough, ON, M1X 1E4

(416) 678-0249

aturner@blackandmcdonald.com

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