



Alexandre Nolet,
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Expert Summary

Alex is a transportation safety engineer with TNS. He has over 12 years of experience in the areas of road user safety, pedestrian and cycling safety, rail safety, transportation engineering, and transportation planning. Alex provides safety consulting services and independent forensic investigations relating to transportation facility design, construction, operations, and maintenance. He has been qualified in the Quebec Court of Justice and British Columbia Human Rights Tribunal as an expert in road safety. He recently received his Road Safety Professional Level 1 certification.

Specialized Professional Competencies

- Road User and Pedestrian Safety
- Human Factors and Positive Guidance
- At-Grade Rail Crossings
- Winter Maintenance
- Transportation Engineering and Peer Reviews

Professional Experience

- True North Safety Group: 2018-present
- Paradigm Transportation Solutions: 2017-18
- 30 Forensic Engineering: 2015-2017
- CIMA+: 2008-2014

Academic Background

- Master of Engineering, Transportation and Planning, University of Toronto, 2014
- Bachelor of Civil Engineer, Laval University, 2008

Project Experience

Traffic Operations Safety Study – Region of Halton, 2020 Retained to review the existing safety programs in place in the Region and to evaluate how it compares to other safety initiatives such as Vision Zero. A total of twenty operational and procedures/practices aiming to reduce the number of injury and fatal collisions were reviewed and updated.

In-Service Road Safety Audits – Region of Peel, 2019-2020 - Retained to complete a comprehensive safety review of five major signalized intersections in the Region. Many treatments included in the Region Vision Zero Road Safety Strategic Plan were recommended, including leading pedestrian intervals and smart channels.

Trillium Line Road Safety Audit – SNC-Lavalin, Ongoing - Retained to conduct a Road Safety Audit (RSA) and review the human factors aspects of the Trillium Line Project in Ottawa. The RSA consisted of a review of a new three-kilometre spur line providing access to Macdonald-Cartier International Airport,

along which a multi-use path will be constructed.

Operational and Safety Review of Rural Skewed Intersections, City of Ottawa, ongoing - Retained to develop an innovative approach to capture and rank the relative collision risk and severity of sites with low-volume and collision experience, and to select appropriate remedial actions representative of the risk level. The study area consisted of 31 curved-tangential intersections.

Rural Active Transportation Strategy – City of Burlington, Ongoing – This project involved the development of active transportation strategy in Burlington rural areas to promote walking and cycling and ensure safety of the users. We also undertook safety reviews of five existing midblock uncontrolled Bruce Trail crossings located in rural areas.

Westmount Road Preliminary Risk Assessment – Region of Waterloo, 2020 Retained to complete a preliminary risk assessment comparing the relative risk between on-road bicycle facilities and an off-road share use path on Westmount Road between Glasgow Street and Erb Street in the Region of Waterloo. The findings were incorporated into the overall decision-making in the planning and design phases of the project.

In-service Road Safety Review at Plains Road East between Fairview Street and Maple Avenue, City of Burlington, 2020 Retained to review the 400 metres road segment, which included a major horizontal curve, and to recommend remedial measures to improve the level of safety of the curve.

Operational and Safety Review of a Rural Intersection, Bruce County, 2019 - Retained to conduct an operation and safety review of the Grey Road 25 and Grey Bruce Line/Grey Road 10 intersection. As part of this project,

conflict analysis data was collected, which were analyzed by TNS to understand the safety concerns and identify remedial measures.

Operational and Safety Review of Six Signalized Intersections, Region of Durham, 2020 - Retained to complete a comprehensive safety review of six major signalized intersections. This project involves the review of conflict data collected with cameras and comprehensive field investigations.

Before and After Conflict Analysis Study, Prince George, 2019 – Retained to conduct a before and after assessment of conflict data to evaluate the effectiveness of converting a permissive left-turn phase to a protected-only eastbound left-turn phase, installing pedestrian countdown timers, and extending the pedestrian phases

Operational and Safety Review of Rural Skewed Intersections, Region of Durham, 2019 - Retained to develop an innovative approach to capture and rank the relative collision risk and severity of sites with low-volume and collision experience, and to select appropriate remedial actions representative of the risk level. The study area consisted of 22 curved-tangential intersections.

Safety Assessment of Proposed CN Logistics Hub, Milton, Ontario, CN, 2017-2019 – Retained to review the safety effects of the increased traffic and truck volume on the expected travel routes between the CN facility and the major destinations and freeway facilities. The study area includes approximately 100 intersections and midblock segments.

In-service Road Safety Review – City of Toronto, 2019 – Retained to complete a comprehensive safety review of the road

segment of Victoria Park Avenue from Parma Court to Jonesville Crescent/Craigton Drive.

Preliminary Hazard Assessment at the Aurora GO Station Platform, Metrolinx and Amec Foster Wheeler, 2016 – Retained to conduct a preliminary hazard assessment of the at-grade pedestrian crossing at the Aurora GO Station platform. The study consisted of a field investigation during peak arrival and departure periods, and an assessment of future operating conditions along with a hazard assessment.

Traffic study for the St. Matthew Catholic School, Toronto District Catholic School Board, 2017-2018 – Conducted a comprehensive operational and safety assessment to determine how to address the traffic congestion and safety concerns on Lavender Road and in vicinity of the school.

Design of a multi-use trail at an at-grade railway crossing, Town of Notre-Dame-des-prairies (QC), 2017-2018 – Retained to determine safety measures that should be implemented in advance of the rail corridor to ensure adequate levels of safety are provided to cyclists and pedestrians travelling on the multi-use trail.

Tillsonburg Corridor Study – Town of Tillsonburg, 2017 - Retained to conduct a Corridor Management Study for Quarter Town Line. The purpose of this study was to develop economically feasible countermeasures to existing and anticipated traffic operations and safety concerns within the corridor.

Corridor In-Service Safety Review – City of Calgary, 2017 – Retained to complete a comprehensive safety review of an industrial arterial road corridor, which included three intersections and a number of private accesses.

Curve Assessment and Warning Sign Recommendations, Region of Halton, 2018 –

Retained to assess all curves on Regional roadways against the Ontario Traffic Manual Book 6 – Warning Signs and make recommendations for the non-compliant curves.

In-Service Road Safety Review of Dundas Street from McLaren Avenue/Pollock Avenue to Franklin Boulevard, Region of Waterloo, 2017 – Retained to conduct a safety review of a 850 metres road section of Dundas Street in Cambridge which included the review of two signalized intersection, one stop controlled intersection, one roundabout and several commercial accesses.

Safety Assessment of the Don Mills Road and Eglinton Avenue Environs, Wynford Green Limited, 2016 – Comprehensive safety reviews of thirteen intersections located in the surroundings of the proposed development on the existing Celestial Lands in the City of Toronto.

Configuration of Safety Analyst Software for Efficient and Effective Safety Management of MTO's Road Network, Ministry of Transportation Ontario – Head Office, 2012 – 2013 – Configured the Safety Analyst software for efficient safety management of MTO's road network, and developed the training material (PowerPoint slides and hands-on exercises) for a two-day training given to MTO staff.

At-Grade Railway Crossing Reviews

Retained to conduct compliance reviews for each of the railway grade crossings, which involved identifying existing deficiencies, determining the appropriate remedial measures and the associated budget level cost estimate. It also involved identifying eligibility of the safety improvements for federal funding. Such projects were completed for the following road authorities:

- City of Pickering, Ontario (ongoing) – 16 crossings
- Oxford County (ongoing) - 22 crossings
- City of Mississauga, Ontario (2017-2018) – 32 crossings
- City of Kamloops, British Columbia (2017-2018) – 22 crossings
- Halifax Regional Municipality (2018) – 28 crossings
- Region of Waterloo (ongoing) – 34 crossings
- City of Grande Prairie, Alberta (2018) – 16 crossings
- Town of Joliette, Québec (2017) – 8 crossings
- Promoting Bike Safety through Safe Road Design, ITE journal, 2019
- Transit Stop: Locating and Designing for Safety, CUTA, October 2019
- Fundamentals and Practical Applications of the AASHTO Highway Safety Manual, ITE Toronto, October 2019
- A Review of Public Right-of-way Accessibility Experiences in Canada, CARSP Conference, Victoria, June 2018
- A Review of Public Right-of-way Accessibility Experiences in Canada, CITE Conference, Edmonton, June 2018
- Alternatives to Grade Separation for Railway Crossings, Canadian Civil Engineer magazine Article, 2018
- Bicycle Safety and Risk Management One-Day Workshop, Ontario Traffic Conference, 2017 & 2018 & 2019
- Above Grade – Implications of the New Regulations on Private Owners of At-grade Railway Crossings, Canadian Underwriter, September 2017
- Pedestrian Safety and Risk Management One-Day Workshop, Ontario Traffic Conference, 2017 & 2018 & 2019
- Formation sur la sécurité des piétons sur le réseau routier, One-Day Workshop, « Association québécoise des transports », 2017
- Pedestrian Safety at At-grade Railway Crossings, CARSP Annual Conference, Toronto, June 2017
- La sécurité des passages à niveau, « Association québécoise des transports » Workshop on at-grade railway crossings in Montreal, November 17, 2016
- Les implications du nouveau Règlement sur les passages à niveau, « Association québécoise des transports » Annual Conference in Quebec City, April 2016

Professional Societies and Associations

- Member, Professional Engineers of Ontario (PEO)
- Member, Ordre des ingénieurs du Québec
- Member, Engineers and Geoscientists British Columbia
- Chair of the Accessibility Guidelines Committee, CITE (2017-2018)
- President of the Canadian Association of Road Safety Professionals (CARSP)
- Member, Association Québécoise des transports, AQTR

Publications/Presentations

- Completing In-Service Road Safety Reviews using Video Based Surrogate Safety Techniques, Transoft, September 2020
- An Innovative Approach to Assessing the Relative Risk at Rural Curved-Tangential Intersections, CARSP, June 2020
- Pedestrian Safety One-Day Workshop, ITE Toronto Section in Thunder Bay, 2020

- Canada's New Grade Crossings
Regulations: Know Your Road Authority's
Responsibilities, Municipal World, March
2016

Expert Testimony

- Qualified as an expert in road safety in
the Court of Justice, Quebec
- Qualified as an expert in road safety
specialized in safety of vulnerable road
users in the British Columbia Human
Rights Tribunal