



## Transportation Engineering Safety

At RAVI we specialize in inspection, evaluation, design and construction inspection of all types of transportation safety improvements.

Our transportation safety staff consists of trained personnel working under the guidance of experienced Professional Engineers with many years of NYSDOT, NYSTA, and FHWA experience. We have qualified personnel for every level from site study/investigation to design and construction inspection within New York State.

Transportation safety means translating community goals into designs, operations, and maintenance practices that reduce crash likelihood and crash severity, while preserving access and mobility. A high-performing system isn't defined by speed alone; it is one with proven reliability, operational resilience, and adherence to safety standards in the movement of people and goods. Reducing impact speed from 40 mph to 30 mph can more than halve the risk of a pedestrian fatality. Engineering for safe speeds is often the single most effective countermeasure.



## Safety Experience

Our safety experience encompasses a holistic approach to data analysis which includes studying high accident locations as well as identifying locations where we can predict future accidents. Our data analysis includes both the identification of a "hot spot" on roadways and a systemic safety analysis, which includes the identification of accident types and risk factors that result in crashes. RAVI uses the most up-to-date NYSDOT standards, Safety Action Plans, and CLEAR application to determine specific safety improvement needs by location. These safety improvements are cost effective and proven safety countermeasures with a long history of reducing the number and severity of accidents. Additionally, we can identify locations with the highest incidence of harmful crashes, making them eligible for Federal funding. Safety funding is limited and our team's capability adds fiscal experience at many levels, both State and Federal Programs, if funding assistance is needed.





## Study Approach

- Gain a clear understanding of roadway conditions
- Identify and prioritize safety treatments
- Identify potential safety funding options available

## Safe System Approach

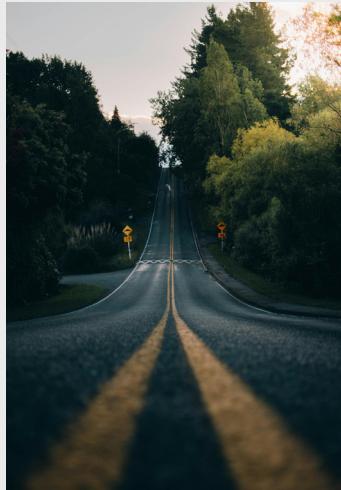
RAVI closely follows the Safe System Approach to transportation safety, focusing on minimizing risks and preventing fatalities in transportation systems. Key principles to this approach include:

- Human-Centric Design: designing systems that accommodate human mistakes and vulnerabilities, ensuring that the transportation system is safe for all users, including pedestrians, cyclists, and drivers.
- Redundancy: incorporates multiple layers of protection to prevent crashes and minimize harm in the event of an accident, ensuring that no single failure can lead to catastrophic outcomes.
- Vision Zero: part of the Vision Zero Initiative, which aims to eliminate roadway fatalities and serious injuries by focusing on safety from all aspects of roadway use, including design, operation and driver behavior.
- Comprehensive Safety Programs: The U.S. Department of Transportation's National Roadway Safety Strategy and ongoing safety programs work towards achieving zero roadway fatalities and serious injuries, integrating infrastructure, human behavior and emergency response.



## Software We Use

- Microstation
- AutoCAD
- NYSDOT Traffic Data Viewer
- NYSDOT CLEAR Crash Data Viewer



**Want More Information  
about our  
Transportation Department?**



**Scan the QR Code to Visit  
Our Department Page.**