



American Road  
& Transportation  
Builders Association

**Written Testimony of the  
American Road & Transportation Builders Association**

***"Every Life Counts: Improving the Safety  
of our Nation's Roadways"***

**United States House of Representatives  
Transportation & Infrastructure Committee  
Highways & Transit Subcommittee**

**April 9, 2019**

Chairman Norton, Ranking Member Davis and members of the subcommittee, the American Road & Transportation Builders Association (ARTBA) appreciates the opportunity to submit these comments on a subject that is of primary importance to our organization, the entire transportation construction industry and the American public —*Every Life Counts: Improving the Safety of our Nation's Roadways*.

Established in 1902, ARTBA represents over 7,500 member companies and individuals who design, build and manage the nation's highways, public transit, airports and intermodal transportation systems. The primary goal of the association is to grow and protect transportation infrastructure investment to meet the public and business demand for safe and efficient travel. Accordingly, the jobsite safety of the men and women who build and maintain America's transportation infrastructure—as well as that of those who travel through our work zones and drive on our completed roadways—has been a top priority for ARTBA's membership.

As an example of ARTBA's commitment to roadway safety, in 2017 we launched the Safety Certification for Transportation Project Professionals™ (SCTPP). This industry driven program aspires to ensure the safety and well-being of construction workers, motorists, truck drivers, pedestrians and their families by making transportation project sites worldwide zero-incident zones.

The SCTPP credential aims to show employers and peers that credentialed transportation professionals can identify common hazards found on transportation project sites and correct them to prevent safety incidents that could result in deaths or injuries. Earning the professional certification also demonstrates command of internationally-recognized core competencies for safety awareness and risk management on transportation projects.

The program was accredited by the American National Standards Institute (ANSI) in May 2018; well over 300 people have earned the credential. And we are just beginning.

### Safer Roads AND Work Zones

ARTBA understands highway safety is an intricate balance between the roadway infrastructure, the vehicle and the motorist. That equilibrium is particularly challenged during construction operations where workers labor barely inches away from motorists who are often travelling at high rates of speed. We commend the committee for happening to schedule this hearing during National Work Zone Awareness Week, which for 20 years has promoted safety for all roadway users and construction workers who navigate these potentially hazardous roadway construction zones. ARTBA is particularly concerned with the trend of increasing deaths and injuries on these sites.

Over the past eight years, work zone fatalities have increased significantly, from 586 in 2010 to 799 in 2017 (the latest year for which data is available). That is a jump of over 30 percent. The table below represents the number work zone-related fatalities, as tracked by the National Traffic Highway Safety Administration’s “Fatality Analysis Reporting System” or FARS:



This trend is obviously moving in the wrong direction, and we agree with the committee that a more serious investigation into the cause of work zone fatalities – and all roadway fatalities – is urgently needed.

## **A Focus on Infrastructure**

ARTBA's experience over the past 117 years has led to an understanding that roadway users will make errors. Design, construction and operation of the transportation network should emanate from this premise, allowing for the development of a more "forgiving" roadway system.

In the United States, this principle requires a new paradigm. Today, much of America's basic road safety strategy today is aimed at reducing human error. Most federal efforts focus on reducing the number of crashes by improving motorists' behavior, including the interaction of drivers with pedestrians, cyclists, large trucks and other motorists. ARTBA believes we must turn that premise around by accepting the fact that some motorists will inevitably make mistakes. Too often they pay for their mistakes with their lives – or the lives of innocent bystanders.

On all major routes—and others to the extent practicable—our roadway system must anticipate user error and be designed, constructed, equipped and operated to forgive the errant user and protect the innocent worker, pedestrian, cyclist or other driver.

## **Severity vs. Frequency**

In conjunction with reducing fatalities, ARTBA believes our transportation system must be improved to reduce the severity of incidents. In some situations, such as the use of roundabouts, a possible increased rate in the frequency of accidents may be a viable trade-off for a decrease in the severity of injuries. The U.S. should prioritize the quality of human life and health above the rate of traffic incidents.

ARTBA's premise does not remove responsibility from the driver to operate his or her vehicle in a safe and courteous manner. All transportation users have an obligation to follow laws, standards and customs that promote safe and efficient use of the system. At the same time, funds must be provided to give transportation system owners greater opportunities to properly operate their systems.

To date, U.S. policy accepts the fact this is an imperfect system, with a goal to reduce the unsafe consequences of that system. ARTBA believes America's safety goal should be developing a transportation system that features zero predictable crashes with severe consequences - beginning with the major networks through to all other roadways to the extent practicable.

## **Paradigm Shift**

This vision requires a paradigm shift on two parallel tracks:

1. The focus of reducing incidents on America's transportation system must be viewed as reducing severity of injuries as opposed to reducing the number of crashes.
2. The policy anticipates user errors and emphasizes design, construction and maintenance of a system that will be "forgiving" of errant behavior.

This change in philosophy is necessary because system users do not have all the relevant information needed to make critical decisions related to their safety and the safety of other users. For example,

drivers are repeatedly reminded: “speed kills,” but the problem is not just *speed* but *kinetic energy*. Kinetic energy causes the damage in a collision or a crash, yet users are blind to it. They feel safe when they shouldn’t. If the transportation system looked dangerous—and hazards were visible in a manner which users could perceive and appreciate—reliance on improved user behavior would be sufficient. The design and operation of America’s transportation system must compensate for this information gap and systematically seek to eliminate such invisible hazards.

On April 14, 2010, Dr. Ted Miller of the Pacific Institute for Research & Evaluation (PIRE) offered testimony on this approach before the Senate Committee on Environment and Public Works. He made a remarkable statement to Congress: “The cost of crashes involving deficient roadway conditions dwarf the costs of crashes involving alcohol, speeding, or failure to wear a safety belt . . . Focusing as much on improving road safety conditions as on reducing impaired driving would save thousands of lives and billions of dollars each year.” He further estimated “motor vehicle crashes in which roadway conditions is a contributing factor cost the U.S. economy more than \$217 billion each year.”

Dr. Miller’s comments were based on a significant research study commissioned by the Transportation Construction Coalition—a partnership of 31 national construction associations and construction trade unions that is co-chaired by ARTBA and the Associated General Contractors of America. Completed in 2009, the study is entitled, “On a Crash Course: The Dangers and Health Costs of Deficient Roadways.” In the report Dr. Miller described several immediate solutions for problem spots including using brighter and more durable pavement markings, adding rumble strips to shoulders, mounting more guardrails or safety barriers, and installing traffic signals and better signs with easier-to-read legends. Dr. Miller emphasized: “More significant road improvements include replacing non-forgiving poles with breakaway poles, adding or widening shoulders, improving roadway alignment, replacing or widening narrow bridges, reducing pavement edges and abrupt drop offs, and clearing more space on the roadside.”

Ten years later, the report’s findings remain valid, and the state of America’s infrastructure may well be in worse condition now than it was a decade ago. ARTBA’s April 1 report on the state of U.S. bridges found the pace of bridge repair in the U.S. is slowing. At the current pace, it would take more than 80 years to replace or repair the nation’s structurally deficient bridges. That’s longer than the average life expectancy of a person living in the U.S. The report, based on an analysis of the recently-released U.S. Department of Transportation 2018 National Bridge Inventory (NBI) database, revealed 47,052 bridges are classified as structurally deficient and in poor condition. The length of America’s structurally deficient bridges if placed end-to-end would span nearly 1,100 miles, the distance between Chicago and Houston.

### **A History of Congressional Support**

ARTBA commends Congress for its long-standing support of roadway infrastructure safety. In the MAP-21 and FAST Act surface transportation laws, Congress ensured that funds set aside for the Highway Safety Improvement Program (HSIP) would be dedicated to highway infrastructure safety improvements. The legislation also continued to provide support for the National Work Zone Safety Information Clearinghouse, a public-private partnership dedicated to providing research, information,

conferences and many other resources aimed at improving roadway work zone safety. We hope Congress will continue to support these important programs.

### **A First Step**

While there are many needs for roadway improvements—and demands on resources to make those improvements are challenging—some efforts simply require doing that which Congress has already identified as an immediate need. For example, through federal rulemaking after the SAFETEA-LU surface transportation law and further provisions in both the MAP-21 and FAST Act laws, Congress and previous administrations have expressed in a bipartisan manner the intent to use increased positive separation between workers and motorists on construction projects that present significant hazards to both workers and roadway users. However, the law has not been fully implemented and positive separation is still not used as regularly as Congress intended. New products and technologies are available that make the practice more practical and cost-effective.

Congress should continue to mandate the Federal Highway Administration to strengthen areas of its Subpart K regulation in accordance with the MAP 21 law that requires additional considerations for use of positive separation. It should also institute provisions in the next surface transportation law that allow for greater enforcement and/or consequences for those who violate the law. Congress should also urge FHWA to include similar positive separation considerations in the agency's Manual on Uniform Traffic Control Devices (MUTCD). The law is clear and prescriptive as to when positive protective systems are to be used by the owner/agency and should be followed accordingly.

### **Conclusion**

Improved safety on America's roadways is a critically important goal. With limited resources it is imperative that Congress review all the means available for saving lives and use those resources in a manner that is most effective – both now and in the long term. Investment in improved roadway infrastructure is a proven means to achieve this goal, and will be effective independent of an individual's behavior, whether he or she decides to act responsibly, or chooses to drive impaired, distracted or fatigued.

We have the technology and “know how” to build our roadway system to anticipate user error. It can be designed, constructed, equipped, and operated to forgive the errant user and protect the innocent victim. Sound investment in safe transportation infrastructure is a bi-partisan priority. ARTBA encourages T&I Committee members to act in urgency with their colleagues in other House committees and the Senate to complete an infrastructure investment bill that will not only improve transportation operations, but also dramatically reduce the nearly 40,000 lives lost each year on America's roads.