



## **Opportunities to Improve Transportation Safety**

### **Statement of the American Road and Transportation Builders Association**

### **Submitted to the United States Senate Committee on Environment and Public Works**

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On behalf of its 5,000 member firms and public agencies nationwide, the American Road and Transportation Builders Association (ARTBA) would like to thank Chairman Boxer and Ranking Member Inhofe for examining opportunities to improve highway safety through transportation policy.

#### **Public Health Crisis**

According to the National Highway Traffic Safety Administration, well over 40,000 people have died annually since 1994 on America's roadways. While these fatalities dropped significantly in 2008 and 2009, it is too early to claim this is a long-term trend. More importantly, any single activity that results in tens of thousands of preventable deaths each year must be considered a national health crisis that demands action by all levels of government.

One key factor jeopardizing travelers is the inadequate capacity in our basic roadway infrastructure. According to the U.S. Census Bureau, since 1982, the U.S. population has grown 31 percent. During that same period, vehicle miles of travel rose by 88 percent; yet, total U.S. road capacity (as measured by lane miles) has increased by only six percent. More cars crowded together on roadways frustrate drivers into shortening following distances and adopting more aggressive driving styles.

The U.S. Department of Transportation indicates that poor road conditions and obsolete road designs are a factor in about one-third of these highway deaths each year. Americans tolerate this

carnage under the misimpression that it is unavoidable. That is untrue. Prioritizing investments in improved roadway design, construction and operation can save thousands of lives every year.

Demographic factors suggest that roadway safety challenges will mount dramatically in coming years unless officials at all levels of government are able to take dramatic action to reverse current trends. The U.S. Administration on Aging estimates that the number of older drivers in the U.S. will double between the years 2000 and 2030—one in five Americans will be age 65 or older. While elderly people safely use the nation's roadways every day, studies indicate clearly that physiological changes related to aging (e.g., declining vision and physical fitness) make these highway users much more vulnerable to injury in a crash. To allow this growing segment of the population to travel safer and longer, the Federal Highway Administration has published a list of guidelines and recommendations for roadway safety improvements that would better accommodate the needs of older drivers.

Providing a safer roadway for all Americans must be a top public policy priority. ARTBA members are committed to a goal of developing a "zero-fatality" roadway infrastructure environment.

### **"Vision Zero" Policy Premise**

To paraphrase, "to err is human, to forgive is our best chance to achieve significant reductions in highway traffic injuries and deaths," ARTBA operates from the premise that users will always 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. This requires a new paradigm. 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. ARTBA turns that premise around by recognizing the fact that some motorists will inevitably make mistakes. Too often, they pay for their mistakes with their lives - or the lives of innocent victims in other vehicles.

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.

### **Severity vs. Frequency**

In conjunction with reducing fatalities, 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 is a viable trade-off for a decrease in the severity of injuries. We need to prioritize the quality of human life and health above the rate of traffic incidents. 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 in order to give system owners greater opportunity and the ability to properly operate their systems.

To date, U.S. policy accepts the fact that we have an imperfect system and we try to reduce the unsafe consequences of that system. Our policy should seek to develop a transportation system

that contains zero predictable crashes with severe consequences, beginning with the major networks and following with all other roadways to the extent practicable.

## **Paradigm Shift**

This vision requires a paradigm shift on two parallel tracks:

- 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.
- 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 warranted because system users do not have all the relevant information necessary to make critical decisions related to their safety and the safety of other users. For example, drivers are repeatedly reminded: "speed kills," but that 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. Users tend to feel safe when they shouldn't. If the transportation system looked dangerous-and hazards were visible in a manner which users could appreciate-reliance on improved user behavior would be warranted. The design and operation of America's transportation system must compensate for this information gap and systematically seek to eliminate such invisible hazards.

## **Specific Safety Policy Goals**

While the zero-fatality approach may take years to achieve, there are several immediate steps that can be taken in the next multi-year reauthorization of the federal surface transportation program.

- Dedicated Funding/Performance Standards. Increased funding for safety infrastructure activities, such as provided by the Highway Safety Improvement, Rail-Highway Grade Crossing, and High Risk Rural Roads programs ensure that investments are dedicated for purposes that will produce a more forgiving roadway environment. These same goals can be achieved through the establishment of tangible safety performance standards that require states and other federal highway funding recipients to empirically demonstrate improved safety.
- Work Zone Safety. With 700 to 1,000 fatalities occurring each year in roadway construction work zones, improving the safety of these temporary facilities is essential. Policies to ensure unit bid pricing for work zone devices and safety systems is an important step to maintaining the safest possible environment for roadway construction workers and motorists. Federal support for work zone safety training and education/information dissemination through the National Work Zone Safety Information Clearinghouse—the world's largest online information resource—is also essential to ensuring the latest information on work zone safety is available to project owners, the traveling public and the construction firms. The Clearinghouse accomplishes its mission through a web site (usage is up 20 percent in the last year), distributing materials at a numerous industry conferences, and hosting a listserv and other forums to share work zone safety best practices.

- Passenger/Commercial Motor Vehicle Separation. Where feasible, federal policy should allow the development of truck-only lanes that will serve the dual purpose of improving goods movement and enhancing roadway safety by physically separating commercial motor vehicles from private passenger travel. The ARTBA-proposed Critical Commerce Corridors federal goods movement program would allow this type of development and provide a separate revenue source from new freight-related user fees to support these activities.
- Older Drivers. Designing and operating roadways to meet the needs of older drivers, particularly by considering the current recommendations and guidelines in the Federal Highway Administration's "Highway Design Handbook for Older Drivers and Pedestrians."
- Proprietary Products. States should be free to utilize innovative methods, or equipment that could improve safety, reduce congestion or increase the quality and durability of highways. To that end, the U.S. Secretary of Transportation should be directed to approve the use of federal funds for the purchase of patented or proprietary items to achieve these goals.
- Research. Increasing funding levels of safety research programs and promoting development and implementation of new technologies that will significantly reduce the number and severity of crashes in a cost-effective manner. These funds should also support improve procedures and processes for collecting, organizing, tabulating, analyzing and disseminating data regarding the safe and efficient operation of the transportation network.

As the Committee continues to work to produce a multi-year reauthorization of the federal highway and public transportation programs, the broad-based safety benefits derived from long-term, stable federal investments should not be overlooked. Increased investment leads to improvement in the design, construction, maintenance and safety-conscious operations of new and existing transportation infrastructure. In general, a more efficient and better conditioned infrastructure network is a safer one. To that end, the American Road & Transportation Builders Association pledges to continue to work with you to enact a reauthorization bill as soon as possible.

Thank you again for convening today's hearing.