

STATEMENT OF
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BEFORE THE
SUBCOMMITTEE ON RAILROADS, PIPELINES, AND HAZARDOUS MATERIALS
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
U.S. HOUSE OF REPRESENTATIVES

CONCERNING
TRACKING TOWARD ZERO: IMPROVING GRADE CROSSING SAFETY
AND ADDRESSING COMMUNITY CONCERNS

FEBRUARY 5, 2020

Mr. Chairman and Members of the Subcommittee:

I appreciate the opportunity to provide the Subcommittee with Norfolk Southern's perspective on the importance of improving grade crossing safety and addressing community concerns. We think these issues can be addressed most effectively in partnership with federal, state, and local government, industry, labor, and non-governmental organizations. Collisions at grade crossings, along with incidents involving trespassers on railroad rights of way, are critical safety issues. They account for well over 90 percent of rail-related fatalities. Although these incidents usually arise from factors that are outside of railroad control, Norfolk Southern and other railroads are committed to working with other stakeholders to reduce their frequency.

Norfolk Southern believes that industry and government should continue to work together to improve grade crossing safety and to minimize avoidable occupations of crossings. To that end, we would like to offer several policy recommendations to this Subcommittee:

- First, funding for the federal Section 130 program, which provides funds to eliminate hazards at highway-rail grade crossings, should be maintained to at least current levels (\$245 million in fiscal year 2020) or increased.
- Second, the Section 130 program should continue to receive dedicated formula funding out of the Highway Safety Improvement Program.
- Third, Section 130 incentive payments for grade crossing closures should be increased from the current cap of \$7,500 to \$100,000.
- Fourth, federal policy should incentivize states to bundle grade crossing projects into a single grant application under applicable programs, such as BUILD, INFRA, or CRISI.

- Fifth, federal policy should require or incentivize the accelerated deployment of navigational warnings (through means such as smart phone applications) for motorists approaching grade crossings.
- Sixth, federal policy should require future fleets of automated vehicles to provide grade crossing warnings and/or prevent driving over grade crossings when a train is approaching.
- Seventh, Congress should authorize at least \$3 million per year for Operation Lifesaver through FHWA, FRA, and FTA.
- Finally, Congress should encourage FMCSA to evaluate the effectiveness of its grade crossing safety training in driver education programs administered by the agency for commercial drivers, and, federal policy, through NHTSA, should encourage states to incorporate grade crossing safety training into their driver education programs.

Background

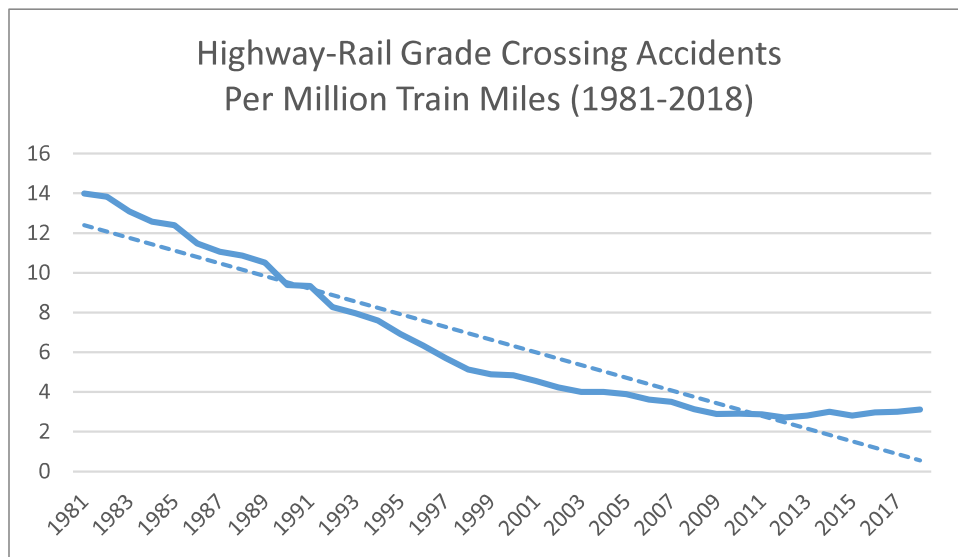
Norfolk Southern is a leading North American transportation provider. Its Norfolk Southern Railway Company subsidiary operates approximately 19,500 route miles in 22 states and the District of Columbia, serves every major container port in the eastern United States, and provides efficient connections to other rail carriers. Norfolk Southern is a major transporter of industrial products, including chemicals, agriculture, and metals and construction materials. In addition, the railroad operates the most extensive intermodal network in the East and is a principal carrier of coal, automobiles, and automotive parts.

Norfolk Southern's predecessors were at the forefront of the railroad industry's development. The South Carolina Canal and Railroad was chartered in 1827 and placed its first locomotive into service in 1830. Soon other companies built rail lines to connect markets in the eastern United States, and within 40 years railroads had crossed the North American continent.

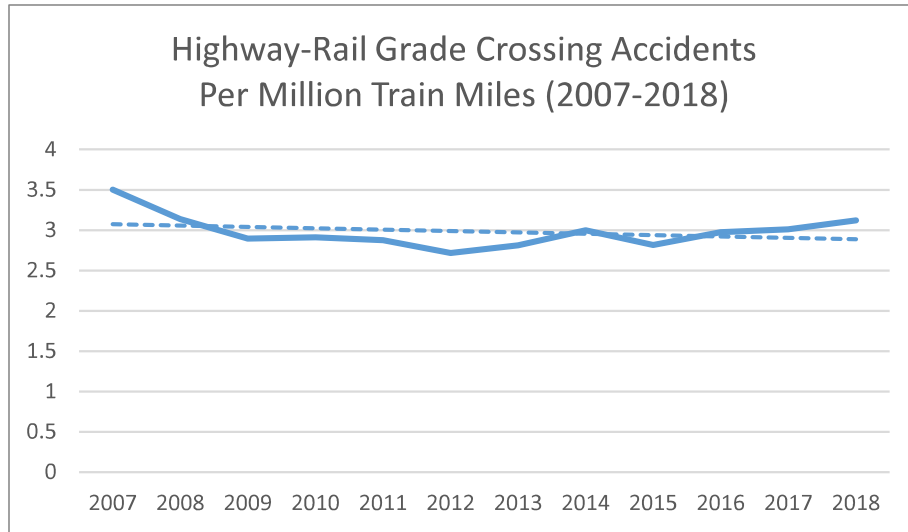
As the railroad industry expanded, the communities we serve grew up around us. With increasing population and the advent of the automobile, states and localities embarked on extensive street and road-building programs, an effort the federal government joined early in the 20th Century. By 1916, railroad system mileage in the United States had peaked at about 254,000 route-miles, declining to approximately 138,000 route-miles today. But as the footprint of the railroad system began to shrink, the automobile revolution was just getting started. There were about 2.8 million miles of public roads in 1916, and that number had grown to 4.2 million miles by 2018. Automotive traffic volume increased even more dramatically over that 102-year period. There were 25.8 billion vehicle miles traveled (VMT) in 1916 compared to 3.2 trillion in 2018, a 124-fold increase. Meanwhile, the number of trains operating over the rail network declined. Combined passenger and Class I freight train-miles stood at 1.2 billion in 1929, the earliest year for which data is available. By 2018, that total had been reduced to around 591 million, or cut by almost half.

The growth in population and vehicular traffic in proximity to the rail system, combined with local land use planning that rarely accounts for the presence of rail corridors through communities, has made interactions between trains and vehicles at grade crossings a challenge. According to the Federal Railroad Administration (FRA), there are over 130,000 public grade crossings in the United States today, with another nearly 80,000 private crossings. By law, automobiles are required to yield to trains and other on-track equipment at each of these grade crossings to prevent accidents. Trains are almost always unable to stop for vehicles that occupy crossings, so driver behavior is the critical factor in grade crossing safety. In fact, a U.S. Department of Transportation Office of Inspector General report attributed 94 percent of grade crossing accidents to risky driver behavior or poor judgment.

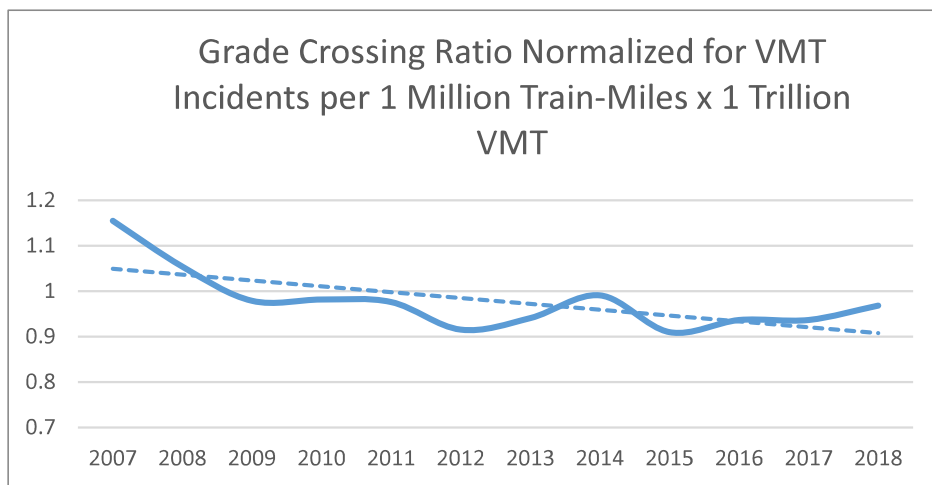
In 1975, the earliest year for which the FRA has data, there were more than 12,000 grade crossing accidents in which nearly 1,000 people lost their lives. Since then, the number of highway-rail grade crossing accidents has dropped more than 80% to approximately 2,200 accidents per year, involving 250 fatalities. The FRA maintains a statistic of highway-rail grade crossing accidents per million train miles to express how many highway-rail grade crossing accidents occur per million miles that trains operate. By that measure, the accident rate has declined more than 75% since the early 1980s.



While long and mid-term progress have been impressive -- a more than 35% reduction in highway-rail grade crossing accidents since 2000 -- the rate of grade crossing accidents has been relatively flat since 2007.



While some may view this recent performance as unimpressive, we must keep in mind that it took place over a period in which VMT increased by approximately 200 billion miles (from approximately 3 trillion miles in 2007 to 3.2 trillion miles in 2018), an increase of nearly 7%. Only using train miles to normalize grade crossing accident statistics omits the major role of vehicular traffic volume on grade crossing accident rates. By introducing VMT into the statistical evaluation and accounting for both train and vehicular activity, we get a better sense of the rate of grade crossing accidents. When we compare grade crossing accident numbers in this manner, we actually see a 17% improvement during this most recent period. It is important to note that this improvement has occurred in a period during which hand-held electronic devices (and their attendant driver distraction issues) have become commonplace, suggesting that the impact of grade crossing safety efforts is actually understated.



I want to emphasize that in any discussion of statistical trends we should not forget that behind these numbers are human beings. Grade crossing accidents have a lasting impact, not only to the occupants of the vehicles but also to the train crews who sometimes witness the last moments of a fellow human being's life. Despite the progress that has been made in reducing grade crossing accidents, the rail industry is not satisfied. At Norfolk Southern, we are engaged in a variety of

innovative and proactive efforts utilizing the timeless “3 Es” of grade crossing safety (Engineering, Education and Enforcement) in partnership with government and others as we work toward the goal of zero accidents.

The Section 130 Program and Other Forms of Governmental Support are Critical to Continued Progress in Grade Crossing Safety and Minimizing Community Impacts.

Grade Crossing Consolidation and Grade Separation Projects

Removing redundant and unnecessary crossings is a critical factor in improving safety. Combining consolidation efforts with grade separation projects eliminates the interaction of trains and vehicles at remaining crossings and can permanently address local concerns with trains occupying crossings when demands on the roadways are high (such as during rush hour or when emergency services vehicles need to traverse railroad tracks).

Grade separation projects are expensive, and the federal Section 130 program is a cornerstone of many grade crossing elimination efforts with states and localities. In light of its importance to grade crossing safety and the prevention of occupied crossings, **funding for the Section 130 program should be increased or at least remain at currently authorized levels (\$245 million in fiscal year 2020)**. In addition, the dependability of funding sources remains essential to facilitating the ongoing planning efforts that are important to long-term project development. To that end, **the Section 130 program should continue to receive dedicated formula funding out of the Highway Safety Improvement Program.**

The rail industry will continue to do its part. The railroads themselves spend hundreds of millions of dollars each year on grade crossing improvements and maintenance. And several railroads, including Norfolk Southern, have been active partners in the CREATE program, a first of its kind project that funds infrastructure programs to address community impacts in the Chicago area, including separations or improvements at 47 different grade crossings.

Not only should the Section 130 program be preserved, **we think adjusting the crossing closure incentive cap from \$7,500 to \$100,000 would make it even more effective.** The hundreds of meetings Norfolk Southern has had with localities over the last several years have revealed the continued importance of incentive payments to closing grade crossings. Although all involved parties can appreciate the importance of grade crossing safety, crossing closures have real costs that need to be addressed. Increasing the current Section 130 incentive payment cap of \$7,500 would allow for the benefits of these projects to be more evenly spread across communities that need the additional assistance and allow for partnerships to take place that might not otherwise be possible due to a lack of resources.

Incentivizing Partnerships such as the Indiana Local Trax program

Norfolk Southern operates approximately 1,440 miles of track in Indiana, transporting finished vehicles, agricultural products, and construction materials throughout the Hoosier State. In serving our customers, our railroad operates over 2,670 public and private grade crossings. In April 2018, the Indiana Department of Transportation announced \$125 million in available funds

through the agency's "Local Trax" Rail Overpass program, which provides a one-time grant opportunity to Indiana cities, towns, and counties interested in pursuing high-priority railroad safety projects such as grade separations, crossing closures, and other safety enhancements at railroad intersections with local roads. The criteria for evaluating projects include: project viability, financial match, hazard index at the crossing, average daily automobile traffic, freight train traffic, number of crossing closures, and community population.

At its core, the impact of the innovative Local Trax program has been to encourage partnership among the State, local governments, private businesses, and railroads to increase safety, improve mobility, and enhance the quality of life for Hoosiers. As Indiana is consistently ranked in the top 5 states for collisions between trains and cars, Norfolk Southern is pleased to be a partner in the Local Trax program and strongly supports its mission to improve safety for Hoosiers throughout the State. Norfolk Southern and local communities have identified more than 20 crossings that could benefit from separation projects, with a goal of completing construction by the end of 2024.

Innovative programs like Local Trax help fuel continued improvement in grade crossing safety and serve as templates for similar programs in other states. Even without a Local Trax-type program, states and communities can benefit from a coordinated approach to grouping projects to maximize impact. To further encourage this type of thoughtful planning, **federal policy should incentivize states to bundle grade crossing projects into a single grant application under applicable programs, such as BUILD, INFRA, or CRISI.** A lack of public transportation planning at the corridor level, focused on eliminating train/vehicle interaction, is a significant hurdle to grade separation bundling coming together. Planning could be encouraged with an increased Section 130 allotment so that communities can adequately prepare corridor programs of multiple grade separations in advance of grant opportunities.

Beyond Crossing Consolidation and Grade Separation

Norfolk Southern realizes that the immediate elimination of every grade crossing is not practical or possible. Therefore, our efforts extend into other areas to improve highway rail grade crossing safety and reduce avoidable occupied crossing issues.

Norfolk Southern maintains a robust vegetation management program to clear our right of way of potential obstructions and ensure compliance with applicable laws and regulations. This program is an important part of Norfolk Southern's efforts to remove potential sight obstructions at highway-rail grade crossings and to ensure that train crews can see railway signals. The program includes mowing, brush cutting, tree removal, and selective herbicide application by qualified and licensed professionals within the railroad's rights of way with careful consideration of the environment.

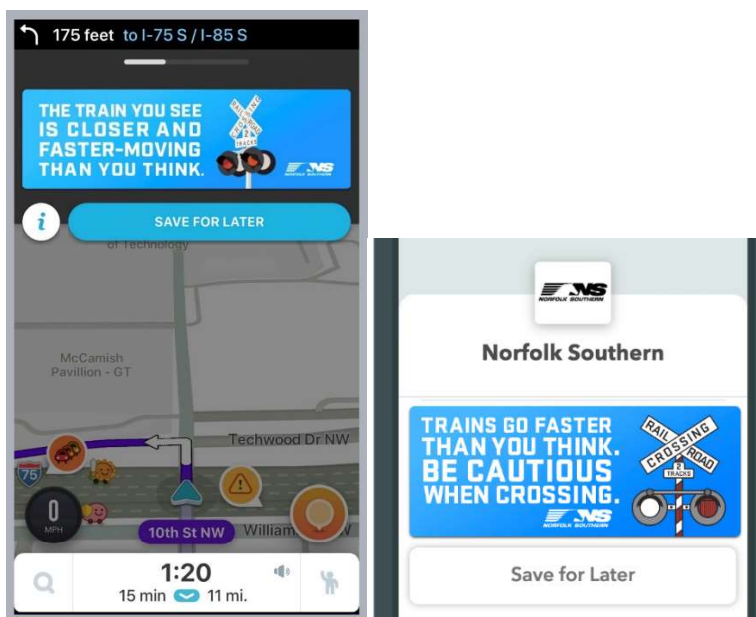
Norfolk Southern is also involved in numerous efforts with local communities and with customers to minimize the impact of operations on local roadway traffic by investing in innovative projects. For example, in Leighton, AL, we are involved in a safety corridor project that includes crossing profile improvements, the installation and upgrade of active warning

devices, and a grade crossing closure. With a combination of willpower and creativity, the railroad and the community have come together to achieve a lasting solution.

Finally, we have undertaken operating changes that have safely increased both the fluidity of our network and average train speed. While these changes have been made to improve efficiency and service, the Government Accountability Office noted in a 2016 report that train speed is a relevant factor in the amount of time a train occupies a crossing. Norfolk Southern's average train speed has increased from 19.1 miles per hour in 2018 to 22.3 miles per hour in 2019 (a 17% improvement). These operating changes have had the additional benefit of reducing terminal dwell and creating additional capacity on our network, which further reduces community impacts at grade crossings.

Education and Technology are Key to Grade Crossing Safety.

Leveraging WAZE Technology



In 2019, Norfolk Southern began using WAZE technology to test a novel approach to increasing grade crossing safety awareness. By utilizing WAZE's unique advertising platform, Norfolk Southern was able to target audiences in key locations to receive crossing awareness messages while in the very place they often need it most – their vehicles. By using a geo-fence around specially selected locations, Norfolk Southern was able to target messages to WAZE users to receive safety notifications in the vicinity of these areas and increase awareness even on trips where they may not drive across crossings. The notifications (as pictured above) include a cross buck graphic and a grade crossing safety message, along with a link to a website with more railroad safety information. By placing limitations on the messaging, we were also able to guarantee that the notifications would only be delivered once the user's vehicle is stopped to prevent any distractions.

Thus far, the pilot project targeted 44 grade crossings in the following areas where 135 incidents have occurred in the past:

- Seven crossings in the Southwest Birmingham, Alabama area
- Nine crossings in the Gary, Indiana area
- Four crossings in the Atlanta/DeKalb County, Georgia area
- Seven crossings in the Toledo, Ohio area
- Five crossings in the Allegheny County, Pennsylvania area
- Twelve crossings in the East Louisville, Kentucky area

Since the project commenced, the technology has reached more than 3 million drivers. More importantly, there have been no collisions at any of the crossings in the targeted locations.

The initial phase of the project ran through the end of 2019. In 2020, the goal is to expand the program locations, include enhanced WAZE content, and link it to a more targeted safety message that will be housed on the Norfolk Southern www.pulling-together.com website.

The Norfolk Southern WAZE initiative has just scratched the surface of the potential for developing the safety benefits of navigational guidance, automated vehicle operations and other technology. **Federal policy can and should continue to support the accelerated deployment of navigational warnings (through means such as smart phone applications) for motorists approaching grade crossings.** Furthermore, as we move into a future with automated vehicles, **federal policy should require that such technologies include the capability to provide grade crossing warnings and prevent drivers from entering over grade crossings when trains are approaching. This capability should also be independent of any railroad systems, such as Positive Train Control, which are not designed to communicate with automobiles.**

Expanding Operating Awareness and Response Training

In addition, Norfolk Southern is expanding our use of the Operation Awareness and Response (OAR) Safety Training to include grade crossing safety material in the programs that it provides. This effort will help to bridge the connections with first responders by providing information and training resources and to educate the public about the safe movement of hazardous materials by rail. In 2019, the OAR program trained 2,428 first responders across the Norfolk Southern network using a rolling learning lab that helps communities prepare for and safely respond to potential rail incidents. In 2020, the program kicks off an 18-stop tour across our system. The 2020 schedule and additional information on the program is available at <http://www.joinnsoar.com>.

Operation Lifesaver is Key to Educational Efforts.

Norfolk Southern and our other railroad partners strongly advocate for continued Federal support for Operation Lifesaver. This federal support has been key to the program's success as demonstrated by the recent launch of a new "Near Miss" public service announcement targeting

distracted pedestrians that was made possible by funding from the FRA as well as the generosity of organizations like the Posner Foundation of Pittsburgh.

While the new campaign focuses attention on the danger of distractions for pedestrians, distracted driving remains a significant threat when it comes to highway rail crossing safety. Organizations like Operation Lifesaver will remain important partners in the efforts to educate motorists about the dangers of distraction when driving near railroad tracks and to spread the important message of grade crossing safety in our schools and communities. To ensure the important work of this organization continues, **Congress should authorize at least \$3 million per year for Operation Lifesaver through FHWA, FRA, and FTA.**

Other Opportunities Exist For Community Education and Enforcement

Walking on railroad tracks is dangerous and illegal. In 2019, Norfolk Southern police warned and ejected 11,883 individuals for trespassing on tracks and other railroad property. Norfolk Southern police also arrested 566 individuals for trespassing. While enforcement efforts are essential, Norfolk Southern's Police Department plays an active role in promoting rail safety in our communities through education. Through the department's Trespasser Abatement Program, or TAP, NS police hold a series of events in communities across our system to educate people about the dangers of walking on or near railroad tracks.

In 2019, Norfolk Southern police held six of the two-day TAPs in locations selected based on the previous year's trespassing activity and pedestrian injuries or fatalities on railroad property. The 2019 events focused on the Gastonia, NC; Hamilton, OH; Johnson City, TN; Sandusky, OH; Greenville, SC; and Louisville, KY areas. The events included meeting with local law enforcement, talking with community members, patrolling the tracks, and handing out antitrespassing brochures.

In addition to TAP, Norfolk Southern police will teach a course in 2020 for local law enforcement officers that focuses on safety and techniques for investigating collisions involving trains and motor vehicles at highway-rail grade crossings.

As I mentioned in my introductory remarks, there is a human dimension to grade crossing and trespasser incidents that cannot be ignored, and that includes the impact to train crews involved in accidents. Norfolk Southern and other railroads have Critical Incident Stress Plans to ensure crewmembers have access to counseling and other assistance in the aftermath of a trespasser or highway-rail grade crossing accident. Those plans are on file with labor organizations, and their efforts to communicate the availability of this assistance to their members is vitally important. But the best course of action is to continue working to prevent these accidents from ever occurring. As we work to address grade crossing safety, we should remember that trespasser prevention is a closely linked topic, and the education and awareness aimed at trespassers can often have an impact on improving driver behavior in the vicinity of crossings too.

With respect to addressing occupied crossings and other grade crossing safety matters at individual crossings, education efforts will continue to emphasize that every crossing has a blue emergency notification sign posted with a 24/7 emergency phone number and an identification

number unique to that crossing so callers can immediately communicate issues at crossings with the responsible railroad. Getting real-time information allows railroads to coordinate with communities to identify workable short- and long-term solutions to mitigate crossing impacts. In some instances that coordination allows railroads to be able to provide real-time information about a current occupied crossing and an estimated time for when the issue may be resolved.

While driver inattention, distraction, and failure to understand and/or follow laws regarding highway rail grade crossings are a problem, the failure of professional drivers in these areas is particularly disturbing. More than 660 of the 1830 highway-rail grade crossing accidents in the FRA database for the first ten months of 2019 (over 35%) involve trucks, trucks and trailers, vans or buses. A sizeable portion of these accidents likely involve professional drivers over which the federal government exercises enhanced control through the Federal Motor Carrier Safety Administration (FMCSA). At a minimum, **FMCSA should evaluate whether currently provided grade crossing safety training in driver education programs for commercial drivers is effective. Furthermore, NHTSA should encourage states to incorporate grade crossing safety training in their driver education programs for all drivers, and apply any lessons learned from FMCSA's experience.**

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Norfolk Southern is committed to operating the safest, most customer-focused and successful transportation company in the world. We will continue to work cooperatively with federal, state, and local governments to achieve these aims and to ensure that North American railroads remain the envy of the world. We appreciate this opportunity to testify and look forward to working with the subcommittee to developing meaningful solutions to reach zero grade crossing accidents and incidents.