Federal Highway Administration
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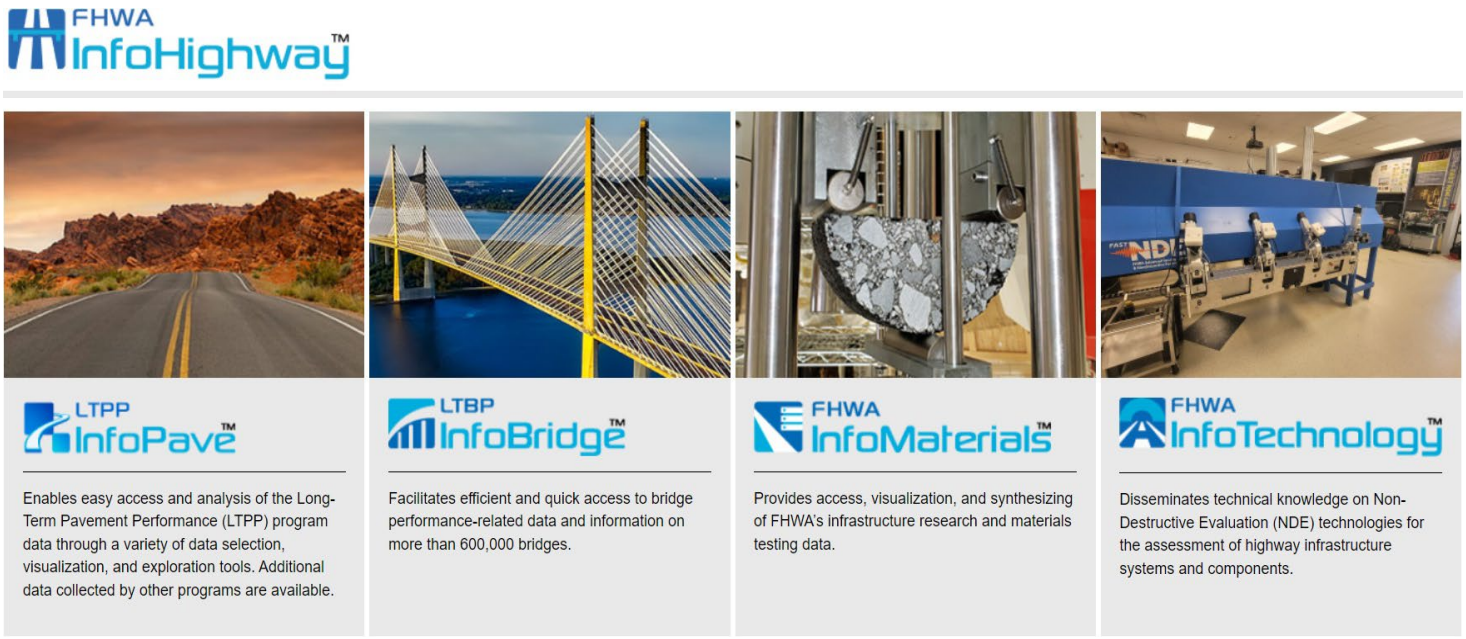

Figure 1. The InfoHighway landing page.

Source: FHWA.

Federal Highway Administration (FHWA) Research and Technology (R&T) Story

The FHWA R&T Story presents innovations that ensure the safety of vulnerable pedestrians, evaluates concepts for connected and automated vehicles (CAVs), and develops better ways to test for pavement deterioration. These innovations can help renew the highway system, spur economic recovery, reduce inequities, and protect against the impact of future climate scenarios. Please visit the R&T Story webpage (Federal Highway Administration n.d.a.).

Long-Term Infrastructure Performance Team

The Long-Term Infrastructure Performance (LTIP) team launched FHWA InfoHighway™ on June 27, 2022 (Federal Highway Administration n.d.b.). InfoHighway provides easy access to highway infrastructure engineering research data in a single location (figure 1). Currently, it includes the following four portals:

- InfoPave™: analysis of long-term pavement performance.
- InfoBridge™: access to performance-related bridge information.
- InfoMaterials™: FHWA infrastructure research and data.
- InfoTechnology™: technical knowledge dissemination on nondestructive evaluation technologies.

For more information, contact Jean Nehme at jean.nehme@dot.gov or 202–493–3042.

Automated Road Transportation Symposium (ARTS)

The Transportation Research Board (TRB) Automated Road Transportation Symposium (ARTS) took place in Garden Grove, CA, the week of August 1. This symposium is the successor to the previous Automated Vehicle Symposium (AVS), which was cohosted by the Association for Unmanned Vehicle Systems International and TRB from 2015 to 2020. ARTS brings together people from industry, government, and research communities to collaborate on the opportunities and challenges associated with automating road transportation. For more information, visit the Office of Safety and Operations website (Federal Highway Administration n.d.c.).

Driver Interaction With Partial Driving Automation Technology When Passing Bicyclists in a Shared Use Lane Study

This study, which took place in the FHWA Office of Bridge Technology, explores the impact of vehicle automation on drivers' interactions with vulnerable road users (VRUs). This project also finished data collection for the Exploring the Effects of Vehicle Automation and Cooperative Messaging on Mixed Fleets Eco-Drive study. This study evaluates the effects of in-vehicle messages, AVs, and adaptive cruise control on driver behavior (see figure 2.)

For more information, contact Jesse Eisert at jessie.eisert@dot.gov or 202-493-3284.

Figure 2. In-vehicle signal and display control system for Exploring the Effects of Vehicle Automation and Cooperative Messaging on Mixed Fleets Eco-Drive project.

Turner-Fairbank Highway Research Center (TFHRC) hosts Life Cycle Assessment (LCA) workshop

TFHRC hosted a virtual event that covered the fundamentals of life cycle assessments (LCAs), environmental product declarations (EPDs), and product category rules (PCRs) and how they fit together. The workshop will help staff have a common working knowledge of these concepts, which are being advanced through FHWA's Climate Challenge and Every Day Counts 7. For more information, visit the LCA PAVE Tool site (Federal Highway Administration n.d.d.).

Virtual-to-Everything (V2X) Communications Summit

The FHWA Office of Safety and Operations R&D and the Saxton Laboratory Team provided a very successful V2X Summit on August 4. The team provided data visualizations from the Saxton Laboratory and worked with the Intelligent Transportation Systems Joint Program Office and the Volpe Center to host a live and virtual summit to discuss the future of V2X Connectivity. The event resulted in a recommendation for the U.S. Department of Transportation to create a V2X Connectivity Vision and Deployment plan.

For more information, contact Carl Andersen at carl.andersen@dot.gov or 202–493–3045.

Megaregion: National Economic Partnerships

FHWA has selected four projects to deliver innovative approaches to multijurisdictional coordination. The following are the four awarded National Economic Partnerships projects and fact sheets that demonstrate this regionally based approach in transportation planning:

- Central Plains Heartland Freight Technology Plan developed an approach to identify and assess emerging freight technologies as well as provide recommendations for harmonizing policies for transportation agencies in the region.
- Future Freight Movement along Freight Alley. The Greater Chattanooga Region created a coordinated regional approach to freight and truck parking that would produce significant benefits to all the States in the region, including more explicit identification of future parking, trucking, and freight demand.
- Interstate 15 Freight Mobility Enhancement Plan developed an actionable implementation plan that defines the partnerships, technology, policy, and funding frameworks needed for successful implementation, collaboration, and economic partnership.
- Sun Corridor Value Impact Analysis developed an approach and toolkit to measure the economic value added by large, high-capacity transportation investments. The toolkit helps regional partners understand the impacts of existing and proposed transportation investments. In addition, the National Economic Partnerships awardees are highlighted in a case study video available on the website.

For more information or questions regarding these projects, contact Cheng Yan at 202–366–9206 or Supin Yoder at 312-257-6356.

FHWA Office of Planning, Environment, and Realty Research Virtual Booth

The Office of Planning, Environment, and Realty has released a new virtual research booth that features multiple resources, including five research fact sheets, banners that connect to research programs like the Alternative Fuel Corridors program, and a quick response code page highlighting research work like the Infrastructure Voluntary Evaluation Sustainability Tool course program (figure 3). This virtual research booth is a great way to quickly connect research and resources.

For more information, see the Planning, Environment, and Realty web page (Federal Highway Administration n.d.e.).

Figure 3. HEP Virtual Booth Home page.

American Routable Network (ARN) Dataset

ARN is a dataset that can be used in geographic information systems (GIS) and travel modeling software to help users understand and visualize the flow of people and goods across the nation. ARN contains 1.1 million miles of road representing the National Highway System (NHS), which includes the Eisenhower Interstate System, the Strategic Highway Network, NHS Intermodal Connectors, and other important arterial roads. The dataset takes advantage of existing FHWA processes that bring in more comprehensive road networks from each of the State DOTs but extracts a subset and connects the roads at State boundaries. ARN is being updated to accurately reflect where turning movements can take place and with more current attribute data with a newer version expected for this summer.

For more information, contact Mark Sarmiento at mark.sarmiento@dot.gov or 202-366-5853.

Shared Micromobility Equity Primer

This primer provides an overview on shared micromobility and transportation equity, a discussion of 12 policies that jurisdictions may use to incorporate equity into shared micromobility programs and helpful resources for reference. The Micromobility Equity Primer includes several case studies, such as Portland, Oregon's electric scooter pilot in 2018, which required 20 percent of the operator's fleet to be sited in historically underserved neighborhoods (Federal Highway Administration 2022; Ciarlo, Johnson, and Sherman 2019).

For more information, contact Felicia Wolf at felicia.wolf@dot.gov or 202-366-9064.

Freight Resilience Planning in the Face of Climate-Related Disruption

FHWA Office of Planning published a new report titled *Freight Resilience Planning in the Face of Climate-Related Disruption* (Federal Highway Administration n.d.f.; Mason and McCoy 2022). The report examines how public agencies are incorporating resilient concepts into their freight networks. The report provides a summary of current practices, methods, and gaps in freight resiliency planning to inform the development and improvement of freight resiliency planning to address climate change and extreme weather risks.

For more information, contact Mack Frost at mack.frost@dot.gov or 804-775-3352.

National Environment Policy Act Case Studies Released

FHWA is sharing nine case studies demonstrating the state-of-the practice regarding the National Environmental Policy Act (NEPA) reviews of tolling and road pricing projects on the Environmental Review Toolkit website (Federal Highway Administration n.d.g.).

As more transportation agencies consider tolling and road pricing projects, questions have arisen about how to address these projects and their impacts within the environmental review process. The imposition of tolls raises questions such as:

- How to develop and evaluate alternatives.
- How to assess the socioeconomic impacts of toll alternatives, including any impacts on low-income and minority populations.
- How to conduct meaningful public involvement.
- How to consider the traffic impacts of toll diversion on parallel roads and adjacent communities.
- How undertaking a NEPA review can add value in developing highway projects in the best overall public interest.

The case studies cover a variety of tolling and road pricing projects and highlight notable practices that address these questions.

For questions about the NEPA and tolling case studies, contact David Cohen at david.cohen@dot.gov or 202-366-8531 or Neel Vanikar at neel.vanikar@dot.gov or 202-366-2068.

Health Effects Institute (HEI) Systemic Review and Meta Analysis of Selected Health Effects of Long-Term Exposure to Traffic-Related Air Pollution (TRAP)

The HEI published a new report, *Systematic Review and Meta-analysis of Selected Health Effects of Long-Term Exposure to Traffic-Related Air Pollution*, as an update to the 2010 Special Report 17, *Traffic-Related Air Pollution: A Critical Review of the Literature on Emissions, Exposure, and Health Effects* (HEI Panel on the Health Effects of Long-Term Exposure to Traffic-Related Air Pollution 2022; Health Effects Institute 2010). Since the 2010 Special Report, many additional studies investigating the health effects of exposure to traffic-related air pollution (TRAP) have been published, and regulations and vehicular technology have advanced significantly. In addition, there is a better appreciation that, beyond air pollution, traffic can be a source of other forms of pollution, including noise.

In the latest report, HEI conducted an updated literature review including 353 case studies. The researchers found a high or moderate-to-high level of confidence in an association between long-term exposure to TRAP and adverse health outcomes and concluded that given the large number of people exposed to TRAP, that this remains an important public health concern and deserves greater attention from the public and from policymakers.

For more information, see the HEI website (Health Effects Institute 2022).

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CONTACT:
Jill.Stark@dot.gov