ENVISIONING AND REALIZING THE NEXT ERA OF TRANSPORTATION JUNE 2025

The American Association of State Highway and Transportation Officials (AASHTO) and the Transportation Research Board's National Cooperative Highway Research Program (NCHRP) have initiated a multi-year process to describe and advance the implementation of a vision for the next era of transportation in the United States. Based on research conducted for NCHRP 20-24 (138), *Collective and Individual Actions to Envision and Realize the Next Era of America's Transportation Infrastructure*, the AASHTO Board of Directors unanimously adopted a transportation vision framework in October 2022. This framework has three elements: **a shared vision and goals**; seven **bold ideas or "moonshots"** to transform transportation by 2030; and a range of **individual and collective actions** for state DOTs to pursue.

VISION: COMMUNITY-CENTERED TRANSPORTATION

A transportation system focused on connecting communities, moving people and goods, and meeting customer needs at all scales, from local to global—delivered as a partnership between state departments of transportation and other public, private, and civic sector partners.

MOONSHOT CONCEPTS: BY 2030, WHAT IF WE...

- Make aggressive progress toward Vision Zero?
- Expand access to jobs and economic opportunity?
 - Create a mobility marketplace so transportation works for our customers?
 - Change how we operate and manage the transportation system, including creating a nationwide digital infrastructure?
 - Advance transportation and energy infrastructure together?
- **Rethink how we connect communities and regions?**

Prioritize strategies and investments to strengthen communities?



INITIAL DEPLOYMENTS

In November 2023, the NCHRP project panel selected **13 projects in 11 states** to serve as initial deployments of the seven moonshot concepts. At least nine other states will serve in supporting roles for these projects.



WASHINGTON STATE

Strategically combine significant planning efforts for I-5 and high-speed rail along western Washington State and in the broader megaregion from Oregon to British Columbia. Create multimodal options and transform role of transportation in surrounding communities.

NEVADA

Expand the I-80 Coalition for the full length of I-80. Pilot next generation of multi-state corridor operations and data sharing.

UTAH

Install fiber optic communications along all interstates in Utah. Leverage communications backbone to deploy and operate a broad range of digital devices and services.

MINNESOTA

Expand use of highway rights of way for energy transmission.

MISSOURI

Advance Improve I-70 Program to deliver a safer, more efficient, and more resilient Interstate across Missouri.

SOUTH DAKOTA

Develop and deploy innovative rural measures to reduce serious injury and fatal crashes.

GEORGIA

Deploy connected vehicle technology and fiber-optic backhaul along all Interstates in Georgia. Set up public-private partnership to provide open access to additional fiber optic infrastructure.

OKLAHOMA

Implement Statewide Mobility Management Program, including 25 mobility managers to be hired and housed in transit agencies and regional planning organizations.



INITIAL DEPLOYMENTS

MICHIGAN

Terri Slaughter, Chief Strategic Impact Officer SlaughterT2@michigan.gov

Expand Access to Jobs and Opportunity:

Michigan seeks to increase access to public transportation for all residents. MDOT also seeks to establish a statewide system to efficiently use all funds available for transportation services, including those managed by other agencies. MDOT is identifying programs that reimburse transportation costs for clients, documenting the funding for these programs, and identifying opportunities to unify or "braid" funding sources. The intent is to establish a mobility marketplace to increase the efficient use of available funds, as well as a "mobility wallet" that combines funds from multiple sources into a single payment tool to simplify using and paying for mobility services.

Jean Ruestman, Project Lead

Transform Transportation and Energy Together:

Michigan is making progress in installing solar panels in its right-of-way to generate renewable energy and support electricity demand in the state. MDOT established a goal of using state right-of-way to generate and store energy, while also expanding electric vehicle charging infrastructure and testing inductive pavement charging. MDOT has used 3D modeling developed by The Ray to determine solar suitability in the right-of-way, and MDOT will be advancing initial installations based on this analysis.

Larry Doyle, Project Lead

NEW JERSEY

Kelly Hutchinson, Assistant Commissioner Kelly.Hutchinson@dot.nj.gov

Make Aggressive Progress Toward Vision Zero:

New Jersey is testing technology-based solutions at high-risk intersections. NJDOT is deploying red-light clearance extension systems to extend the time to clear intersections and mitigate conflicts between vehicles, pedestrians, and bicyclists. NJDOT also is deploying passive detection systems to detect pedestrians, begin walk times, and extend crossing times. Initial results suggest these systems can reduce the frequency and severity of crashes. NJDOT will extend these systems to other high-risk intersections using a systems engineering approach.

Jaime Oplinger, Project Lead

Expand Access to Jobs and Opportunity: New

Jersey is advancing a statewide strategy to empower asset-limited, income-constrained, and employed (ALICE) households through transportation. NJDOT is developing partnerships with organizations like United for ALICE and transportation management associations. NJDOT also is conducting a scan of mobility options to identify transportation deserts and conducting market research to better understand mobility needs. The agency is creating a new pilot grant program to support projects that improve accessibility, expand transit service, reduce travel and wait times, and support more travel options. Finally, NJDOT is rethinking project development and design to consider impacts on ALICE households at each step of the process.

Laine Rankin, Project Lead

TEXAS

Brandye Hendrickson, Deputy Executive Director Brandye.Hendrickson@txdot.gov

Change How We Operate and Manage the Transportation System: Texas is deploying and testing safety and mobility technologies on the I-45 "innovation corridor" from Houston to Dallas. TxDOT uses an engineering focus that includes preventative infrastructure, work zone management, and traffic incident management. The corridor is intended to include the latest roadway technology for safety, mobility, and quality of life. It will be a prototype for other interstates, serve as a live testbed for emerging technology evaluation, and be the basis for concepts of operations for ready-to-deploy applications. Scalable solutions can be applied on other corridors such as I-35 and I-10.

Erika Kemp and Darran Anderson, Project Leads

WHAT'S NEXT?

Work with initial deployment states to demonstrate initial progress and refine 2030 outcomes for each moonshot

Continue to build out spectrum of individual and collective actions for state DOTs to pursue

Continue to engage with "Challenge Network" of non-traditional partners to explore innovative approaches for advancing community-centered outcomes

Share results from initial deployments and develop tools and resources for more state DOTs to become involved in future phases

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Link to Phase I report:

https://apps.trb.org/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=5102

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