

America's Transportation Infrastructure Act of 2019

Section-by-Section

TITLE I—FEDERAL-AID HIGHWAYS

Subtitle A—Authorization and Programs

Sec.1101.Authorization of appropriations.

Provides the level of contract authority funding to be made available from the Highway Trust Fund for Federal-aid highway programs for the five-year authorization period of the bill, fiscal years 2021 through 2025. The bill provides a total of \$287 billion in contract authority from the highway account of the Highway Trust Fund.

Sec.1102.Obligation ceiling.

Sets the annual limitation on obligations for Federal-aid highway programs for each of fiscal years 2021 through 2025. The bill provides a total of \$283.6 billion in obligation limitation.

Sec.1103.Definitions.

Adds definitions for “Resilience” and “Natural Infrastructure” to the list of defined terms under Section 101 of title 23.

Sec.1104.Appportionment.

Provides the amounts for administrative expenses of the Federal Highway Administration for each fiscal year and the calculation process for distributing Federal-aid highway program funds .

Sec.1105.National highway performance program.

Augments the purpose of the National Highway Performance Program (NHPP) to include a focus on measures that increase resiliency to the impacts of sea level rise, extreme weather events, flooding, and other natural disasters, such as earthquakes and rockslides. In addition to resiliency projects currently eligible on the National Highway System, the bill allows States to use up to 15 percent of their NHPP funds for protective features to improve resiliency of a Federal-aid highway or bridge off the National Highway System.

Sec.1106.Emergency relief.

Augments the Emergency Relief (ER) program's definition of a natural disaster to include wildfire and sea level rise and allows the use of ER program funds on protective features to improve resiliency including: raising roadway grades, relocating roads in floodplains to higher ground, stabilizing slide areas and slopes, installing riprap, lengthening or raising bridges to increase waterway openings, deepening channels, improving drainage, replacing or upsizing culverts, installing seismic monitoring on bridges, use of natural infrastructure to mitigate the risk of storms and flooding, or other features as determined by the Secretary .

Sec.1107.Federal share payable.

Provides for a maximum Federal share of up to 100 percent for a project to add protective features to improve resiliency on a Federal-aid highway or bridge project if such protective feature is an improvement designed to mitigate the risk of recurring damage or the cost of future

repair from extreme weather events, flooding, and other natural disasters.

Sec.1108.Railway-highway grade crossings.

Maintains current funding levels at \$245 million per year for each fiscal year 2021 through 2025 for the Railway-Highway Crossings (Section 130) Program, a set-aside within the Highway Safety Improvement Program. Adds an emphasis on reducing pedestrian fatalities and injuries from trespassing at grade crossings, adds program flexibilities, and increases the Federal share for projects funded under the Section 130 program from 90 to 100 percent.

Sec.1109.Surface transportation block grant (STBG) program.

Maintains the FY2020 amount (55 percent) of STBG funding that is sub-allocated to metropolitan areas. Increases the Transportation Alternatives Program (TAP) set-aside and sub-allocation amounts and provides small communities greater access to TAP funding. Adds new eligibilities to STBG including construction of wildlife crossing structures, rural barge landing, dock, and waterfront infrastructure projects, and the construction of certain privately or majority-privately owned ferry boats and terminals. Also allows low water crossing replacement projects to be eligible for use under the federal off-system set-aside.

Sec.1110.Nationally significant freight and highway projects (NSFHP).

Amends NSFHP, currently known as INFRA, by raising the cap on eligible multimodal projects to 30 percent of program funds. Requires that a portion of funds go toward certain critical rural and urban state projects. Increases the minimum amount (from 10 percent to 15 percent) for small projects, increases the federal share allowable for small projects, and requires that not less than 30 percent of funds reserved for small projects be used for certain projects in rural areas. Adds new consideration of freight resilience. Creates new set-aside of \$150 million per year of NSFHP funds for a pilot program to encourage applicants to expand their non-Federal share of project costs. Also expands the program's transparency requirements. This bill authorizes a total of \$5.5 billion in dedicated funding from the Highway Trust Fund for fiscal years 2021 through 2025.

Sec.1111.Highway safety improvement program (HSIP).

Restores flexibility for certain non-infrastructure activities and behavioral safety projects, such as educational campaigns about traffic safety and enforcement activities, allowing a State to spend up to 25 percent of its HSIP funds on such projects. Also includes leading pedestrian intervals as an eligible highway safety improvement project. Leading pedestrian intervals are traffic signals that allow pedestrians to begin walking slightly prior to the green light for vehicles, which improves pedestrian safety.

Sec. 1112.Federal Lands Transportation Program (FLTP).

Raises the cap on FLTP funds that may be used to improve public safety and reduce wildlife vehicle collisions while maintaining habitat connectivity from \$10 million to \$20 million per year. Requires entities carrying out FLTP projects to consider the use of native plants and designs that minimize runoff and heat generation.

Sec.1113.Federal lands access program (FLAP).

Broadens FLAP eligible activities to include contextual wayfinding markers, landscaping, and

cooperative mitigation of visual blight. Requires entities carrying out FLAP projects to consider the use of native plants and designs that minimize runoff and heat generation.

Sec.1114.National highway freight program.

Increases the maximum number of highway miles a State may designate as critical rural freight corridors from 150 to 300 miles, and as critical urban freight corridors from 75 to 150 miles. It provides additional flexibility for lower population-density States to designate a maximum of 600 miles. The section allows up to 30 percent of program funds to be used on eligible multimodal projects.

Sec.1115.Congestion mitigation and air quality improvement program (CMAQ).

Adds flexibility to CMAQ by allowing States to spend up to 10 percent of CMAQ funds on certain lock and dam modernization or rehabilitation projects and certain marine highway corridor, connector, or crossings projects. Also clarifies that certain CMAQ-eligible operating costs are not subject to a time limitation or phase-out requirement, and expands operating assistance eligibility to transit systems outside of large urbanized areas.

Sec.1116.National scenic byways program.

Requires the Secretary to issue a request for nominations with respect to roads to be designated under the National Scenic Byways Program, and to publish the list of newly designated roads within one year of the date of enactment.

Sec.1117.Alaska Highway.

Clarifies that the Secretary may provide funding for certain sections of the Alaska Highway. This section does not alter current or require new agreements between the United States and Canada.

Sec.1118.Toll roads, bridges, tunnels, and ferries.

Clarifies that the construction of ferry boats and terminals also includes the construction of maintenance facilities, and permits the use of Federal funds to procure transit vehicles as part of the ferry boat program if the vehicles are used exclusively as part of an intermodal ferry trip.

Sec.1119.Bridge investment program.

Establishes a new competitive grant program to assist State, local, and tribal entities to rehabilitate or replace structurally deficient bridges. Authorizes \$3.3 billion in dedicated funding from the Highway Trust Fund for fiscal years 2021 through 2025 and an additional \$3.3 billion authorized for appropriations for fiscal years 2021 through 2025.

Sec.1120.Safe routes to school program.

Amends the Safe Routes to School Program to apply the program through 12th grade to enable and encourage high school students to walk and bike to school safely.

Sec.1121.Highway use tax evasion projects.

Reauthorizes funding to be used by the Secretary in conjunction with the Internal Revenue Service to address highway use tax evasion.

Sec.1122.Construction of ferry boats and ferry terminal facilities.

Authorizes \$440 million in funding from the Highway Trust Fund for fiscal years 2021 through 2025 for the Ferry Boat Program.

Sec.1123.Balance exchanges for infrastructure program.

Establishes the Balance Exchanges for Infrastructure program to incentivize certain states within the Appalachian region to use unobligated balances of funding to improve highway infrastructure.

Sec.1124.Safety incentive programs.

Provides supplemental formula and competitive grant funds to States and urbanized areas to expand and incentivize investments in transportation safety projects. Requires areas with high rates of fatalities for nonmotorized road users to focus investments on improvements to bicyclist and pedestrian safety. Authorizes \$500 million and \$100 million per year from the Highway Trust Fund for formula and competitive grants, respectively, for fiscal years 2021 through 2025.

Sec. 1125.Wildlife Crossing Safety.

Establishes a 5-year, \$250 million wildlife crossing pilot program to provide grants for projects designed to reduce wildlife-vehicle collisions and improve habitat connectivity. Also requires the Secretary to take a variety of measures (e.g. reports, voluntary guidance, data collection, methodology development) to assist States in reducing wildlife-vehicle collisions and increasing habitat connectivity.

Sec. 1126.Consolidation of Programs.

Provides continued funding for Operation Lifesaver, work zone safety grants, and safety clearinghouses.

Sec. 1127.State Freight Advisory Committees.

Adds to the makeup and role of state freight advisory committees, and lists state freight advisory committee member qualifications.

Sec.1128.Territorial and Puerto Rico Highway Program.

Authorizes increased funding for the Territorial and Puerto Rico Highway Program, a total of \$841 million for Puerto Rico for fiscal years 2021 through 2025, and \$221 million for the territories.

Subtitle B—Planning and Performance Management

Sec.1201.Transportation planning.

Adds an additional consideration for metropolitan transportation planning requirements, enhances coordination between Metropolitan Planning Organizations (MPOs), and encourages MPOs to use social media and other web-based tools to encourage public participation in the transportation planning process.

Sec.1202.Fiscal constraint on long-range transportation plans.

Eliminates the fiscal constraint requirement for Long Range Transportation Plans for any years

beyond the 4-year State Transportation Improvement Plan timeframe. Currently, Long Range Transportation Plans are required to be fiscally constrained, e.g. limited to transportation projects that could be completed with the level of funding that is reasonably expected to be available. This provision eliminates that requirement for the years of the 20-year planning horizon that are beyond the first 4 years.

Sec.1203.State human capital plans.

Requires the Secretary to encourage States to develop a voluntary human capital plan for the immediate and long-term transportation-related personnel and workforce needs of the State under title 23. These voluntary human capital plans would be publicly available and updated at least once every 5 years.

Sec.1204.Accessibility data pilot program.

Requires the Secretary to carry out a pilot program to provide data on the level of transportation access the public has to important destinations, such as daily workplaces, health care and child care facilities, education and training, grocery stores, ADA accessible sidewalks, and safe bicycling corridors, as identified by each pilot program participant to improve their transportation planning.

Sec.1205.Prioritization process pilot program.

Establishes a pilot program to support data-driven approaches to transportation planning, providing funds for selected States and MPOs to develop and implement a publicly accessible, transparent prioritization process to evaluate and select projects to include in a transportation plan.

Sec.1206.Exemptions for low population density states.

Exempts certain low population density States from specific congestion-related performance management requirements.

Sec.1207.Travel demand data and modeling.

Requires the Secretary to carry out a study that gathers travel demand data from a sampling of States and MPOs, and compares forecasts with observed travel, for the purpose of improving forecasting, and evaluating the impacts of transportation investments on travel demand.

Sec. 1208. Increasing Safe and Accessible Transportation Options.

Establishes a program to increase the funds available for planning Complete Streets, active transportation networks, transit access, and other safe and accessible options for multiple travel modes.

Subtitle C—Project Delivery and Process Improvement

Sec.1301.Efficient environmental reviews for project decisionmaking and One Federal Decision

Amends section 139 of title 23, United States Code, to provide new environmental review procedures and requirements for major infrastructure projects. Also requires the lead federal agency to develop a schedule for a major infrastructure project that is consistent, to the

maximum extent practicable, with an agency average of not more than 2 years for the completion of the environmental review process for major infrastructure projects, as measured from the date of publication of a notice of intent to prepare an environmental impact statement to the record of decision.

Sec.1302.Work zone process reviews.

Ensures that a work zone process review is required not more frequently than once every 5 years.

Sec.1303.Transportation management plans.

Removes a requirement for States to develop or implement a transportation management plan for projects that involve lane closures, if the lane closure will last only three consecutive days or fewer.

Sec.1304.Intelligent transportation systems.

Requires the Secretary to develop guidance for using existing flexibilities with respect to the systems engineering analysis to ensure nationwide consistency, wide dissemination to Federal-aid recipients, and minimal delays and paperwork for low-risk and exempt intelligent transportation systems.

Sec.1305.Alternative contracting methods.

Amends sections 201 and 308 of title 23, United States Code, to provide the Secretary flexible authority to use contracting methods available to a State under title 23 on behalf of Federal land management agencies (and Tribes under section 202) in using funds under sections 203, 204, or 308 of title 23, or section 1535 of title 31. Requires that the Secretary solicit input from stakeholders and consult with Federal land management agencies to establish clear procedures for alternative contracting methods that are consistent with Federal procurement requirements to the maximum extent practicable.

Sec.1306.Flexibility for projects.

Requires the Secretary, on request by a State, and if in the public interest, to exercise all existing flexibilities and exceptions in order to expedite processes under the requirements of title 23 and other requirements administered by the Secretary.

Sec.1307.Improved Federal-State stewardship and oversight agreements.

Requires the Secretary to develop, and request and respond to comments on, a template for Federal-State stewardship and oversight agreements developed in accordance with section 106 of title 23, United States Code (or other authority). Also requires the Secretary to update existing agreements with States according to the template.

Sec.1308.Geomatic data.

Requires the Secretary to develop and issue for public comment guidance for the acceptance and use of information obtained from a non-Federal interest through geomatic techniques, including remote sensing and land surveying, cartography, geographic information systems, global navigation satellite systems, photogrammetry, or other remote means.

Sec.1309.Evaluation of projects within an operational right-of-way.

Establishes deadlines for the review, response, and action by Federal agencies carrying out their permit, approval, or other authorization responsibilities over preventative maintenance, preservation, or highway safety projects in the operational right-of-way. Federal agencies that do not meet the requirements of this section are subject to a reporting requirement that describes why the deadline was missed.

Sec.1310.Department of Transportation reports.

Requires the Secretary to prepare a report on the preceding fiscal year describing the median time for the completion of environmental reviews and any new categorical exclusions applicable to highway projects. The report must list all regulatory requirements that have been removed or reduced, including, if available, a summary of cost savings to States, Tribes, local government, and the public. Also requires the report to contain information, to the extent it is available, on the median time to complete environmental reviews and a summary of costs savings, if available, to States, Tribes, local government, and the public, resulting from the removal or reduction of regulatory requirements.

Subtitle D—Climate Change

Sec.1401.Grants for charging and fueling infrastructure to modernize and reconnect America for the 21st century.

Establishes a competitive grant program to strategically deploy alternative fuel vehicle charging and fueling infrastructure along designated alternative fuel corridors that will be accessible to all drivers of electric, hydrogen, and natural gas vehicles. This bill provides the following amounts from the Highway Trust Fund: \$100 million for each of fiscal years 2021 and 2022; \$200 million for fiscal year 2023; and \$300 million for each of fiscal years 2024 and 2025.

Sec.1402. Reduction of Truck Emissions at Port Facilities.

Establishes a competitive grant program to reduce idling and emissions at port facilities, including port electrification projects. This section also requires the Secretary to submit a report to Congress detailing the status and effectiveness of the program. This bill provides the following amounts from the Highway Trust Fund: \$60 million for fiscal year 2021; \$70 million for each of fiscal years 2022 and 2023; \$80 million for fiscal year 2024; and \$90 million for fiscal year 2025.

Sec.1403.Carbon Reduction Incentive Program.

Provides supplemental formula and competitive grant funds to States to expand investment in transportation improvements designed to reduce on-road mobile sources of carbon, and to incentivize planning and investments to reduce carbon emissions. This bill provides \$600 million and \$100 million per year from the Highway Trust Fund for formula and competitive grants, respectively, for each of fiscal years 2021 through 2025.

Sec.1404.Congestion Relief Program.

Provides competitive grants to States and local governments to advance innovative, integrated, and multimodal solutions to congestion relief in the most congested metropolitan areas of the United States. This bill provides a total of \$200 million in dedicated funding for the program out

of the Highway Trust Fund for fiscal years 2021 through 2025.

Sec.1405.Freight Plans.

Adds new strategies for inclusion within the national freight strategic plan, including strategies to promote resilience, national economic growth and competitiveness, and strategies to reduce local air pollution and water runoff. Does not add or establish new procedural requirements for the approval of state freight plans.

Sec.1406.Utilizing significant emissions with innovative technologies (USE IT Act).

Supports carbon utilization and direct air capture research, and supports federal, state, and non-governmental collaboration in the construction and development of carbon capture, utilization, and sequestration (CCUS) facilities and carbon dioxide (CO₂) pipelines.

Sec.1407.Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT) grant program.

Establishes a supplemental formula and competitive grant program to help States improve the resiliency of transportation infrastructure. This bill provides \$786 million and \$200 million from the Highway Trust Fund for formula and competitive grants, respectively, for each of fiscal years 2021 through 2025.

Sec.1408.Diesel emissions reduction.

Extends the authorization of the Diesel Emissions Reduction Act (DERA) program through fiscal year 2024, and changes current law to make clear that EPA must recognize that there are differing diesel vehicle, engine, equipment or fleet use concerns in different areas of the country as the agency funds DERA projects.

Subtitle E—Miscellaneous

Sec. 1501.Additional Deposits in Highway Trust Fund.

Repeals section 105 of title 23.

Sec.1502.Stopping threats on pedestrians.

Establishes a grant program to provide assistance to local government entities for bollard installation projects designed to prevent pedestrian injuries and acts of terrorism in areas used by large numbers of pedestrians. Authorizes the program for appropriations at \$5 million for each of fiscal years 2021 through 2025.

Sec.1503.Transfer and sale of toll credits.

Establishes a toll credit exchange on a pilot basis to enable the Secretary to evaluate the feasibility of and demand for a toll credit marketplace through which States could sell, transfer, or purchase toll credits.

Sec.1504.Forest Service Legacy Roads and Trails Remediation Program.

Amends the Forest Roads and Trails Act by requiring the Secretary, acting through the Chief of the Forest Service, to develop a national strategy to perform critical maintenance and urgent repairs and improvements on National Forest System roads, trails, and bridges. Authorizes the

program for appropriations at \$50 million per year for each of fiscal years 2021 through 2025.

Sec.1505.Disaster relief mobilization pilot program.

Provides grants on a pilot basis to local communities to develop disaster preparedness and disaster response plans that include the use of bicycles. This bill provides a total of \$5 million in dedicated funding for the pilot program out of the Highway Trust Fund for fiscal years 2021 through 2025.

Sec.1506.Appalachian regional development.

Reauthorizes the Appalachian Regional Commission (ARC) at \$180 million for each of fiscal years 2021 through 2025. Includes Catawba and Cleveland counties (in North Carolina) as part of the Appalachian region for purposes of the ARC. Establishes an Appalachian Regional Energy Hub.

Sec.1507.Requirements for transportation projects carried out through public-private partnerships.

Includes transparency requirements for projects carried out through public-private partnerships.

Sec.1508.Community connectivity pilot program.

Establishes a pilot program through which eligible entities may apply for planning funds to study the feasibility and impacts of removing transportation facilities that create barriers to mobility, access, or economic development, and for construction funds to carry out a project to remove an eligible facility and replace it with a new facility. This bill provides a total of \$120 million in dedicated funding for the pilot program out of the Highway Trust Fund for fiscal years 2021 through 2025.

Sec.1509.Repeal of rescission.

Repeals the \$7,569,000,000 rescission in Federal-aid Highway Program contract authority contained within Section 1438 of the Fixing America's Surface Transportation (FAST) Act.

Sec.1510.Federal interagency working group for conversion of federal fleet to hybrid-electric vehicles, electric vehicles, and alternative fueled vehicles.

Requires the Chair of the Council on Environmental Quality to lead a Federal interagency working group to develop a strategy to transition the vehicle fleets of the respective Federal agencies to hybrid-electric vehicles, plug-in electric drive vehicles, and alternative fueled vehicles, to the maximum extent practicable.

Sec.1511.Cybersecurity tool; cyber coordinator.

Requires FHWA to develop a tool to assist transportation authorities in identifying, detecting, protecting against, responding to, and recovering from cyber incidents. Requires FHWA to designate an office as a "cyber coordinator" for monitoring, alerting, and advising transportation authorities of cyber incidents.

Sec.1512.Study on most effective upgrades to roadway infrastructure.

Directs the Secretary to enter into an agreement with the Transportation Research Board to identify specific immediate and long-term types of upgrades necessary to benefit the largest

segment of road users, autonomous vehicles, and automated driving system, as well as to examine how to best achieve roadway infrastructure uniformity to facilitate the safe deployment of autonomous vehicles and automated driving systems.

Sec.1513.Study on vehicle-to-infrastructure communication technology.

Directs the Secretary to enter into an agreement with the Transportation Research Board to identify immediate and long-term safety benefits of vehicle-to-infrastructure connectivity technologies and technologies that would allow motor vehicles and roadway infrastructure to communicate using dedicated short-range communications (DSRC) and related safety applications.

Sec.1514.Nonhighway recreational fuel study.

Authorizes a study and report (occurring consecutively every 5 years) to produce the best available estimate of the total amount of fuel taxes paid by users of nonhighway recreational vehicles into the Highway Trust Fund. This section provides that the study will be used to assist Congress in determining an appropriate funding level for the recreational trails program.

Sec.1515.Buy America.

Requires the Secretary to issue a notice 15 days in advance prior to issuing a waiver for the Buy American requirement for Federal-aid projects.

Sec.1516.Report on data-driven infrastructure traffic safety improvements.

Requires the FHWA Administrator to conduct a study to identify data-driven infrastructure traffic safety improvements for priority focus areas, including improvements that would benefit older drivers, teenage drivers, commercial drivers, and vulnerable road users, and to issue a report to Congress containing study results and recommendations.

Sec.1517.High priority corridors on the National Highway System.

Amends section 1105 of the Intermodal Surface Transportation Efficiency Act by adding new future Interstate designations along corridors in North Carolina and Kentucky. Requires the Comptroller General to submit a report to Congress on the safety and infrastructure impacts, if any, of the continuation of weight limits on specific highway segments.

Sec.1518.Interstate weight limits.

Amends section 127 of title 23, United States Code by continuing existing weight limits along specific corridors in North Carolina and Kentucky should any such corridors become designated as a route on the Interstate System.

Sec.1519.Interstate exemption.

Allows any commercial establishment operating legally in a rest area along a specific segment of highway in Kentucky to continue to operate in the Interstate right-of-way (subject to the Interstate access standards established under section 111 of title 23) should the segment be designated as a route on the Interstate System.

Sec.1520.Report on air quality improvements.

Requires the Comptroller General to evaluate the Congestion Mitigation and Air Quality Improvement Program (CMAQ).

Sec.1521.Roadside highway safety hardware.

Requires the Secretary to implement recommendations from a Government Accountability Office (GAO) Report to develop a third party verification of roadside safety hardware testing results from crash test labs and to establish a process to enhance the independence of crash test labs when lab employees test devices that were developed within the parent organization of the employee. Also directs FHWA to continue issuing Federal-aid eligibility letters as a service to States until the third party verification processes are complete.

Sec.1522.Permeable pavements study.

Requires the Secretary to conduct a study on the effects of permeable pavements on flood control.

Sec.1523.Emergency relief projects.

Requires the Secretary to revise the emergency relief manual of FHWA to include a definition of resilience, identify procedures that may be used to incorporate resilience into Emergency Relief (ER) projects, encourage the use of Complete Streets design principles in ER projects, develop best practices for improving the use of resilience in ER projects, and develop and implement a process to track the consideration of resilience as part of the ER program, and track the costs of ER projects.

Sec.1524.Certain gathering and supply lines located on Federal land and Indian land.

Allows the Secretary of the Interior to establish a categorical exclusion for certain gathering lines that would reduce venting, flaring and other emissions of methane from, and the vehicular traffic servicing, onshore oil and gas wells on federal land, and, with tribal consent, Indian land.

Sec.1525.Technical corrections.

Makes technical corrections to title 23 of the United States Code.

TITLE II—TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION

Sec.2001.Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA) amendments.

Updates the TIFIA program to increase utilization, streamline the application process, and increase transparency in the vetting process for projects seeking TIFIA funds. Expands program eligibility to airport projects and additional transit-oriented development projects, subject to a cap and sunset. Extends the authorization of State Infrastructure Bank program through fiscal year 2025.

TITLE III—RESEARCH, TECHNOLOGY, AND EDUCATION

Sec.3001.Surface transportation system funding alternatives.

Provides funding to test the feasibility of a road usage fee or other user-based alternative revenue mechanisms that preserve a user fee structure to maintain the long-term solvency of the Highway Trust Fund. Builds upon the pilot program authorized in the FAST Act and strengthens the

program objectives to ensure projects test solutions for the collection, privacy, and security of data for the purposes of implementing a user-based alternative revenue mechanism.

Sec.3002.Performance management data support program.

Extends the authorization and provides a funding source for FHWA to develop, use, and maintain data sets and data analysis tools to assist metropolitan planning organizations (MPOs) and States in carrying out performance management analyses and requirements.

Sec.3003.Data integration pilot program.

Authorizes a pilot program, funded with a total of \$12.5 million from General Fund appropriations, to research and develop models that integrate real-time information, including weather conditions, roadway conditions, and information from emergency responders.

Sec.3004.Emerging technology research pilot program.

Establishes a pilot program to conduct emerging technology research, specifically including advanced and additive manufacturing (3-D printing) technologies, as well as research into activities to reduce the impact of automated driving systems and advanced driver automation systems technologies on pavement and infrastructure performance, as well as improve transportation infrastructure design. Authorizes for appropriations \$5 million per year for each of fiscal years 2021 through 2025 to support the pilot program.

Sec.3005. Research and technology development and deployment.

Expands the objectives of the Turner Fairbank Highway Research Center to support research on non-market ready technologies in consultation with public and private entities. Establishes an open challenge and research proposal pilot program that provides grants for proposals to research needs or challenges identified or determined as important by the Secretary. Also expands the Technology and Innovation Deployment Program by adding a focus on accelerated market readiness efforts, and increases funding for the program, including \$100 million in new and innovative construction technologies for smarter, accelerated project delivery. Extends the authorization for the Accelerated Implementation and Deployment of Pavement Technologies and adds pavement-related considerations to enhance the environment and promote sustainability in the reporting under this program. The modified Advanced Transportation Technologies and Innovative Mobility Deployment program includes intermodal connectivity and a rural set-aside of not less than 20 percent. Authorizes a new Center of Excellence on New Mobility and Automated Vehicles to research the impact of automated vehicles and new mobility, such as docked and dockless bicycles and electric scooters.

Sec.3006.Workforce development, training, and education.

Provides authority to allow States greater flexibility to address surface transportation workforce development, training, and education needs. These changes will help States address their current workforce gaps, such as occupations in construction, as well as future workforce needs resulting from emerging technology. Modifies an existing grant program that authorizes the Secretary to award grants to educational institutions and State DOTs to provide hands-on career opportunities to meet current and future needs and establishes reporting requirements.

Sec. 3007. Wildlife-Vehicle Collision Research.

Adds animal detection systems to reduce the number of wildlife-vehicle collisions as eligible for priority consideration for intelligent transportation system (ITS) research projects. Amends membership of the advisory committee required to advise the Secretary on carrying out ITS programs.