

INDIANA DEPARTMENT OF TRANSPORTATION

LONG-RANGE TRANSPORTATION PLAN

2018-2045 Transportation
Needs Report



PERFORMANCE MEASURES AND TARGETS - ASSET MANAGEMENT



INDIANA DEPARTMENT OF TRANSPORTATION

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Indianapolis, Indiana 46204

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Eric Holcomb, Governor
Joe McGuinness, Commissioner

June 28, 2019

Ms. Mayela Sosa
Indiana Division Administrator
Federal Highway Administration
575 North Pennsylvania Street
Indianapolis, IN 46204

Dear Ms. Sosa:

This letter is to document the designation of the Indiana Department of Transportation's (INDOT) performance-based, 2019-2045 Indiana Long-Range Transportation Plan as required under 23 CFR 450.216 and 49 USC 5304(f). This document replaces INDOT's 2013-2035 INDOT Future Transportation Needs Report.

The INDOT 2045 Long-Range Transportation Plan remains a non-project specific, broad-based policy, statewide transportation planning document that allows for a more flexible and opportunistic framework for addressing multimodal transportation issues, trends, needs, and innovation for the next 20-25 years. The document defines specific strategic actions, targets, and performance measures to affect INDOT decision-making and accomplish desired results.

INDOT has leveraged extensive and innovative outreach to citizens, stakeholders, planning partners, and various agency departments within our planning process. Innovative outreach strategies include: virtual town hall meeting, public survey specific to bike and pedestrian planning, seven regional planning coordination meetings with stakeholders, crowd-sourcing technology, regional team meetings, Purdue presentations, and various open-house meetings across the state.

Lastly, INDOT has carried out this plan update in a manner that ensures support of subsequent State Transportation Improvement Programs (STIP). The document links the reader to Indiana's Next Level Initiatives, INDOT's Transportation Asset Management Plan, various mode-specific planning documents, and lists long-term agency improvement priorities and studies for future development commitments, including I-69 section 6, I-69 Ohio River Crossing, US 31 and US 30 corridor enhancements, and others.

Thank you and members of the Federal Highway Administration (FHWA) Indiana Division, FHWA Headquarters, and the Federal Transit Administration team for your participation and support of our statewide transportation planning process and in the development of this document.

Regards,

A handwritten signature in blue ink that reads "Heather Kennedy".

Heather Kennedy
Deputy Commissioner
Capital Program Management

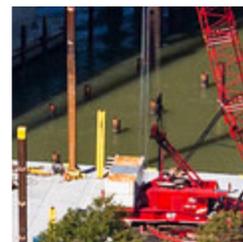
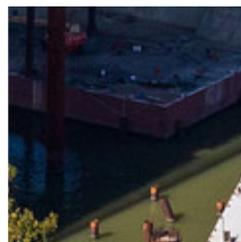
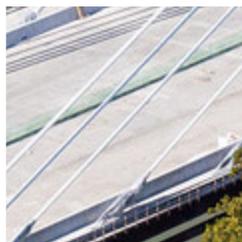
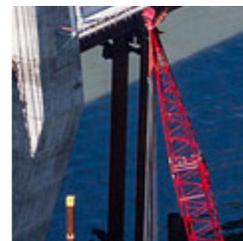
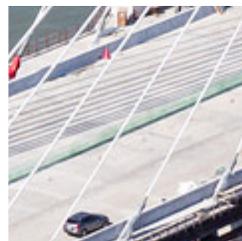
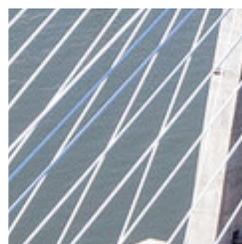
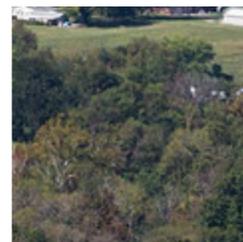
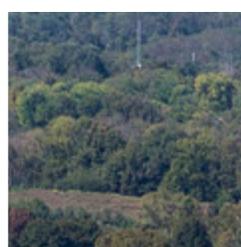
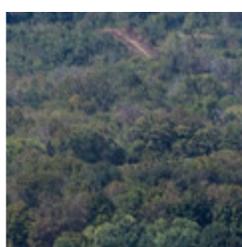
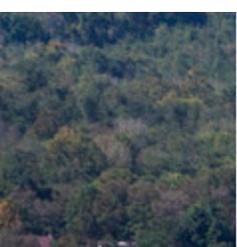
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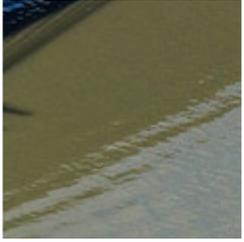
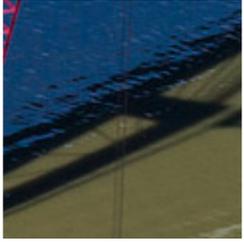
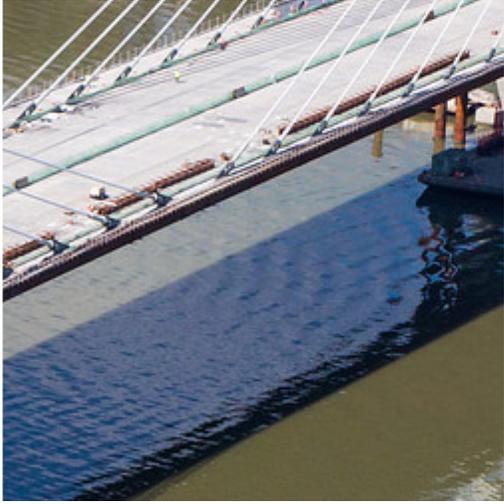
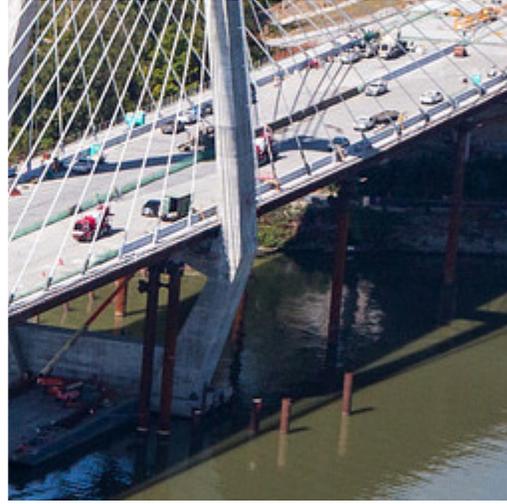
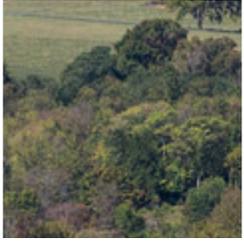


cc: Joe McGuinness - Commissioner
Roy Nunnally – Division Director, Technical Planning and Programming
Kathy Eaton-McKalip – Division Director, LPA/MPO & Grant Administration
Jim Stark – Division Director, Multimodal Planning
Jay Mitchell – Supervisor, Technical Planning Section

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EXECUTIVE summary

2018-2045 Transportation Needs Report

WHAT IS THE LRTP?

The 2018-2045 Future Transportation Needs Report is Indiana's statewide, long-range transportation plan (LRTP). This plan is a broad-based policy document that is used to guide the development of Indiana's transportation system. The

purpose of the LRTP is to assure that the transportation infrastructure network will adequately serve future needs through the year 2045.

Why Have an LRTP?

As a blueprint for the future transportation system, the LRTP will outline the robust planning process that is needed to fulfill the vision for developing Indiana's desired transportation system through the year 2045. As a performance-based plan, the LRTP will be set up to specifically define its present status, recommended actions, and measurable outcomes. The Governor's Next Level Roads and Next Level Connections initiatives are incorporated in the LRTP.



Who is Involved in the LRTP?

While INDOT has primary responsibility for Indiana’s highway system and their responsibility varies for other modes, it does not act alone in statewide transportation planning. Governmental entities—including Federal and state agencies, the metropolitan planning organizations (MPOs), and local jurisdictions—partnered with INDOT and

played a critical role in the planning process. A variety of advocacy groups and industry organizations—including Conexus of Indiana, the Indiana Economic Development Corporation, and the Ports of Indiana—are also significant contributors. The plan will guide INDOT and its planning partners towards common goals.

“Indiana’s transportation system will be safe, efficient, and integrated and serve as the foundation of the state’s economic vitality and quality of life and support for its residents and industries.”



Public Involvement

Public outreach is critical in the development of the LRTP and associated policies and strategic actions. To understand the transportation needs and priorities of Indiana’s residents and businesses, INDOT conducted several public meetings to solicit stakeholder input. The project website, <https://www.in.gov/indot/3714.htm>, also provided regular updates on the plan’s progression.

Policy Goals

The vision of the LRTP was driven by policy goals that are consistent with national planning goals. Objectives are specific, measurable statements that define how each goal is to be achieved. They play a key role in shaping investment strategies and policy priorities.

Safe & Secure Travel	Move Indiana toward zero deaths and reduction of serious injuries by applying proven strategies and enhancing the safety and security of our transportation system for all users.
System Preservation	Going beyond taking care of what we have and maintain our multimodal transportation system and infrastructure in a state of good repair.
Economic Competitiveness and Quality of Life	Enhance the competitiveness of Indiana’s economy as the “Crossroads of America” through strategic multimodal transportation investments, reducing transportation costs, and the safe and efficient movement of people and goods.
Multimodal Mobility	Maximize the performance of our transportation system, ensuring efficient movement of people, goods, and regional connectivity by enhancing access to different modes of transportation.
Environmental Responsibility	Minimize the potential impacts of the transportation system on the natural and human environment.
New Technology and Advancements	Develop and deploy advanced transportation technologies and embrace a broad-based, comprehensive research program to plan for the future.
Strategic Policy Actions	Address multiple goal areas through key policy initiatives.

Demographic Changes

Indiana's population is expected to grow to 7.8 million by the year 2045. Population growth will continue to place greater demands on the transportation system, which may lead to increased traffic congestion in urban and suburban regions as well as longer trip lengths that may extend peak commuting periods. Employment growth is also expected to increase overall trip attractions, which may alter commuting patterns and levels.



Note: Does not include all roadways; VMT estimates cover interstates, US and state highways, as well as a selection of non-state jurisdictional highways.

Mobility Trends

Several complex factors influence travel patterns and choices, such as fuel costs, job location, nearby services, land use, and changes in the size and number of households. More people are relying on interstate and state highways for local trips. Vehicle miles traveled (VMT) refers to the total number of miles traveled by Hoosiers and can place great demands on Indiana's roadway infrastructure. Due to the anticipated increase in total population, the statewide VMT will also grow. Traffic congestion is linked to population and VMT growth; as a result, travel time and/or delay is projected to increase significantly.

DAILY DELAY

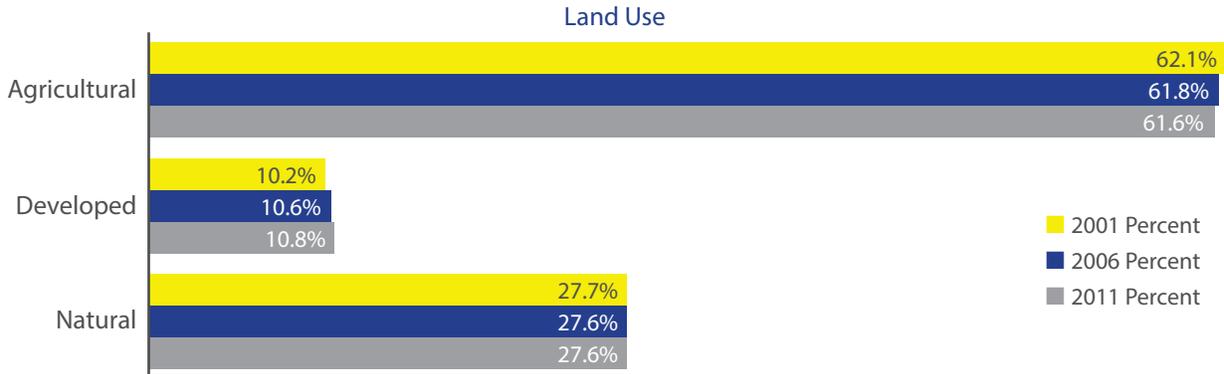


DAILY COST



Land Use Development

Shifts in land use can impact the amount of vehicle travel and the viability of transit, walking, and other modes. As such, land use development can be a driving factor for transportation improvements and transportation improvements can spawn development. As shown, the decrease in agricultural land compared to the increase development has been very minimal from 2001 to 2011. This trend will continue through 2045, as the agricultural industry is a large contributor to Indiana's economy.



Infrastructure Assets

Indiana relies on a mix of modes to move people and freight safely and efficiently. The following provides a snapshot of the various components of Indiana's extensive transportation system.

35,897,597 annual unlinked passenger trips via **PUBLIC TRANSIT**, including bus and commuter trains



105,928 miles of **PUBLIC ROADS**, of which 11,169 are State-owned

19,291 **BRIDGES**, of which 5,747 are State-owned

4,134 miles of **RAIL** with 1.5B tons of cargo annually

3 PORTS & 225 MARITIME TERMINALS

117 public-use **AIRPORTS**

3,600 miles of **TRAILS & BIKEWAYS**

90 miles from **SOUTH BEND** to **CHICAGO MILLENNIUM** station

428 miles of **INLAND WATERWAYS**

Multimodal Needs

A comprehensive multimodal approach aims to address Indiana's transportation needs, while improving system efficiency and supporting future mobility and economic growth. Effective decision-making relies upon an understanding of these needs

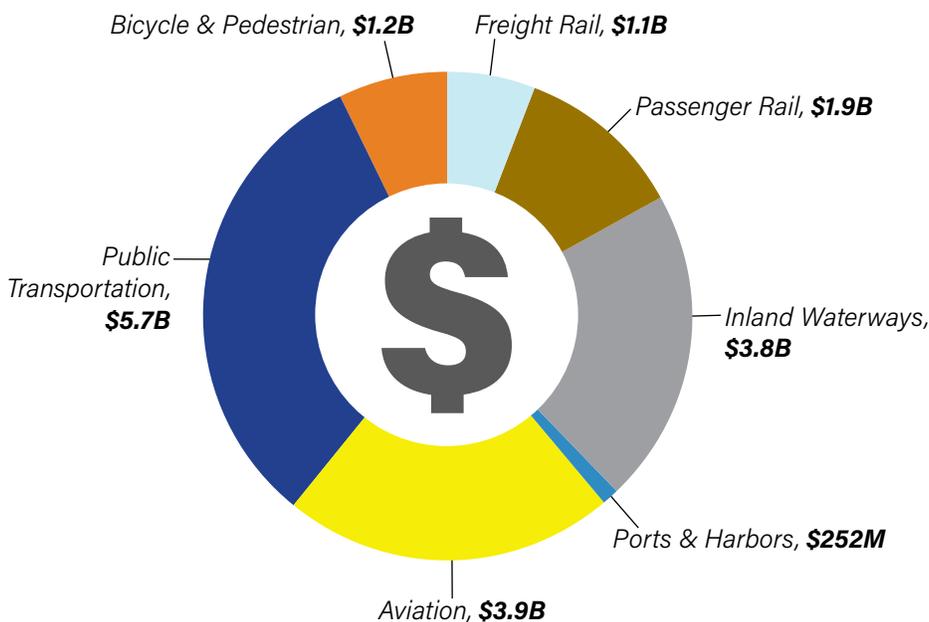
and the continuous coordination with planning partners. Below is list of statewide needs:

- Road pavement preservation—94 percent of INDOT’s interstates were in fair or better condition in 2016.
- Bridge clearances and repairs—97 percent of INDOT’s bridges were in fair or better condition in 2017.
- Additional rail capacity—Most rail lines are single track and at least 345 miles of rail lines are unable to accommodate the industry-standard 286,000-pound weight limit.
- Grade separations and crossing improvements—the average annual number of accidents at rail-highway at-grade crossings between 2007 and 2016 was 120, ranking 6th in the nation.
- Double tracking—25.9 miles of the South Shore Line between Gary and Michigan City would add more frequent train service, reduce delays, improve travel times, and double weekly ridership to 26,000 in the next 20 years.
- Maintenance dredging at Burns Harbor—Losses of between two and three feet of channel depth would increase transportation costs between \$3.5 million and \$6.8 million annually.
- Optimization of maritime connections between rail and highway modes—Each port is served by only a single Class I

railroad and the Mt. Vernon port is also constrained by inadequate direct highway access.

This plan identifies more than **\$1B** per year in **PAVEMENT & BRIDGE NEEDS** along with more than **\$9.2B** IN MAJOR CORRIDOR IMPROVEMENTS

COST OF MULTIMODAL NEEDS



- Runway pavement upgrades—Approximately 59 percent of airport pavements need preventative maintenance, 34 percent need more extensive rehabilitation, and seven percent need reconstruction.
- Increase frequency and coverage of public transit service—One percent of people (ages 16 and over) use public transportation to get to work.
- Trails and bikeways expansion and connectivity—Approximately 69 percent of state roadways are suitable for bicycles.
- Crosswalk visibility enhancements—An average of seven percent of severe vehicular accidents involved pedestrians between 2006 and 2016, ranking 18th in the nation.

Environmental Programs

The LRTP is intended to inform planning decisions that have the

potential to impact Indiana’s natural and human resources. Therefore, INDOT is committed to establishing sustainable and environmentally sound policies that comply with the National Environmental Policy Act and related Federal regulations. INDOT has established numerous environmental programs to specifically meet this commitment.

- Hoosier Roadside Heritage Program
- Recycling and Waste Diversion
- Adopt-A-Highway Program
- Indiana Stellar Communities Program
- Historic Bridge Marketing Program
- Alternative Fuel Vehicles
- Indiana Scenic Byway Program
- Storm Water Quality Management

Environmental Justice

Environmental Justice (EJ) populations include minority and low-income people. In addition, the elderly, persons with disabilities, and persons with limited English proficiency (LEP) should also be taken into account. Low-income populations and LEP households are concentrated in northern Indiana (Elkhart, LaGrange, and Noble Counties) and the Indianapolis metro area. INDOT has a responsibility to ensure “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.” INDOT established EJ objectives and will continue to work with planning partners and stakeholders to ensure EJ populations throughout Indiana are represented in the transportation planning process and that they are not disproportionately or adversely impacted by transportation projects.

Performance Measures

INDOT’s performance measures are designed to be clear, quantifiable, and easily verifiable metrics of how well Indiana is achieving its adopted goals and objectives. Each measure identifies a numeric performance target, based on a desired change. Information in the Transportation Asset Management Plan is used to evaluate the condition and performance of the Indiana’s publicly-owned transportation system. This helps to report on the progress toward the achievement of performance targets and to track the effectiveness of LRTP strategies. INDOT will continue to collaborate with its planning partners and stakeholders to assess the factors that are influencing the performance level of various transportation modes, and to refine the performance targets to maintain or improve operational efficiency.

 GOALS	 PERFORMANCE AREA	 PERFORMANCE MEASURES
Safe & Secure Travel	Safety Performance Measures	<ul style="list-style-type: none"> • Number of Total Fatalities • Number of Total Serious Injuries • Rate of Fatalities • Rate of Serious Injuries • Number of Non-Motorized Fatalities and Serious Injuries
System Preservation	Pavement & Bridge Condition Performance Measures	<ul style="list-style-type: none"> • Percentage Good Interstate Pavements • Percentage Good Non-Interstate NHS Pavements • Percentage Poor Interstate Pavements • Percentage Poor Non-Interstate NHS Pavements • Percentage Good NHS Bridges • Percentage Poor NHS Bridges
Economic Vitality	Freight Reliability Performance Measure	<ul style="list-style-type: none"> • Truck Travel Time Reliability
Multimodal Mobility	Congestion Performance Measure	<ul style="list-style-type: none"> • Hours of Excessive Delay
	Travel Reliability Performance Measures	<ul style="list-style-type: none"> • Percentage Interstate Travel that is Reliable • Percentage Non-Interstate NHS Travel that is Reliable
	Ridesharing Performance Measure	<ul style="list-style-type: none"> • Non-Single Occupant Vehicle Travel
Environmental Responsibility	Air Quality Performance Measure	<ul style="list-style-type: none"> • On-Road Mobile Source Emissions Reductions

Current Funding Priorities

Every year, INDOT updates its State Transportation Improvement Program (STIP), which identifies the funding and timing of the state's transportation projects by fiscal year. The current 2018-2021 STIP identifies more than \$4.4 billion in projects. Funds are allocated to nine major project types.

Current Funding Programs

Most of Indiana's transportation projects and programs are funded from state and Federal sources, including fuel tax, vehicle and driver tax, sales tax, toll and user fees, and other miscellaneous fees. Among other funding programs, the Next Level Roads is a recently announced initiative. **Next Level Roads dedicates more than \$30 billion over the next 20 years for the maintenance and construction of roads and bridges.** The revenue stems from an increase in gas tax by 10 cents a gallon and increased special fuel and motor carrier surcharges. **The \$1 billion Next Level Connections plan will fund important infrastructure projects statewide, including the completion of major highway improvements, trails development, creating more nonstop international flights, rail expansion in northwest Indiana, and the potential building of a new fourth port at Lawrenceburg.** The revenue comes from an agreement with the toll concession, in which higher tolls for heavy commercial vehicles will be assessed.



\$1,513 M

Pavement Reconstruction / Maintenance

\$1,401 M

Bridge & Structure
Reconstruction / Maintenance



\$860 M

Added Capacity / Intersection
Improvements



\$178 M

Transit



\$215 M

Safety / ITS / Other



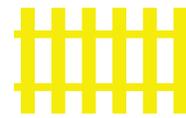
\$155 M

Bicycle / Pedestrian



\$54 M

New Bridges



\$53 M

Railroad



\$19 M

Other Maintenance



Anticipated Future Funding

Transportation funding must be adequate to deliver the LRTP vision. Transportation financial projections for INDOT are based on the current STIP, Next Level Roads, and Next Level Connections. It will be a challenge for Indiana's current revenue stream to address future transportation needs and increasing mobility demands—especially when combined with rising construction and real estate costs.

Between fiscal year 2018 and 2024, this plan has identified an average of \$2.7 billion available each year for INDOT. It is projected that \$2.75 billion will be available each year from fiscal year 2025 to 2045. The largest share of these resources come from State Federal-aid FHWA funds at 29 percent, local Federal-aid FHWA funds at 9 percent, and State highway funds at 54 percent.



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