ODOT, FHWA & INFRASTRUCTURE BIL MARCH 7, 2022

































BIPARTISAN INFRASTRUCTURE LAW (BIL)*

Overview of Highway Provisions



*Also known as the "Infrastructure Investment and Jobs Act"

BIL Goes Beyond Transportation

- Once-in-a-generation investment in infrastructure
- Grows the economy, enhances U.S. competitiveness, creates good jobs, and makes the U.S. economy more sustainable, resilient, and equitable
- Around \$550 B in new Federal infrastructure investment, including—
 - Largest federal investment in public transit ever
 - Largest federal investment in passenger rail since the creation of Amtrak
 - Largest dedicated bridge investment since the construction of the Interstate System
 - Largest investment in clean drinking water & wastewater infrastructure in U.S. history
 - Largest investment in clean energy transmission & electric vehicle infrastructure in history
 - Ensuring every American has access to reliable high-speed internet
- On average, around 2 million jobs per year

High Points of BIL Highway Provisions

- Funds highway programs for five years (FY 22-26)
- \$350.8 B (FY 22-26) for highway programs
 - \$303.5 B in Contract Authority (CA) from the Highway Trust Fund (HTF)
 - +\$47.3 B in advance appropriations from the General Fund (GF)
- More than a dozen new highway programs, including—
 - Formula: resilience, carbon reduction, bridges and electric vehicle (EV) charging infrastructure
 - Discretionary: bridges, EV charging infrastructure, rural projects, resilience, wildlife crossings, and reconnecting communities
- Focus on safety, bridges, climate change, resilience, and project delivery
- More opportunities for local governments and other non-traditional entities to access new funding
- \$90 B transfer (GF->HTF) to <u>keep the HTF Highway Account solvent for years</u>

\$350.8 B (FY 22-26) FOR HIGHWAY PROGRAMS

- \$303.5 B in Contract Authority from the HTF
- +\$47.3 B from the General Fund (GF) for "Highway Infrastructure Programs" (HIP)
- Nine Categories of HIP Funding Under BIL (from the GF)
- Funding Available to a Range of Recipients

Nine Categories of HIP Funding Under BIL (from the GF)

Total, FY 22-26	Program
\$27.5 B	Bridge Formula Program
\$9.2 B*	Bridge Investment Program (discretionary)
\$5.0 B	National Electric Vehicle Formula Program
\$3.2 B*	INFRA Program
\$1.3 B	Appalachian Development Highway System (ADHS)
\$0.5 B*	Reconnecting Communities Pilot Program
\$0.3 B*	Ferry Boat Program
\$0.2 B*	Reduction of Truck Emissions at Port Facilities
\$0.1 B*	University Transportation Centers (UTCs)

^{*} Supplements CA separately provided by BIL for this program

Funding Available to a Range of Recipients

Program Examples	State	MPO	Local	Tribe	PA*	Territory	FLMA*
Apportioned programs (formula)	✓						
Bridge Program (formula)	✓			✓			
National Electric Vehicle Formula Program	✓		✓				
Safe Streets and Roads for All program		✓	✓	✓			
PROTECT Grants (discretionary)	✓	✓	✓	✓	✓		✓
Charging and Fueling Infrastructure Program	✓	✓	✓	✓	✓	✓	
Congestion Relief Program	✓	✓	✓				
Bridge Investment Program (discretionary)	✓	✓	✓	✓	✓		✓
Reconnecting Communities Pilot Program	✓	✓	✓	✓			
Rural Surface Transportation Grants	✓		✓	✓			
INFRA	✓	✓	✓	✓	✓		✓
Nat'l Infra. Project Assistance	✓	✓	✓	✓	✓		
Local and Regional Project Assistance	✓	✓	✓	✓	✓	✓	

Note: This table does not include all BIL programs or eligible entities, and there are additional nuances not represented in this table. Additional programmatic information is provided in later slides. FHWA will administer most, but not all, programs listed.

* "PA" means a special purpose district or public authority with a transportation function; FLMA means Federal Land Management Agency

APPORTIONED HIGHWAY PROGRAMS

- 8 Apportioned CA Programs (Including 2 New)
- Changes to Existing CA Programs (NHPP, STBG, HSIP, CMAQ, and NHFP)

BRIDGES

- Bridge Formula Program
- Bridge Investment Program
- Other Bridge-related Provisions

[NEW] Bridge Formula Program

Purpose	Replace, rehabilitate, preserve, protect, and construct bridges on public roads
Funding	\$27.5 B (FY 22-26) in advance appropriations from the GF
Recipients	States (including DC and Puerto Rico)
Distribution formula	 75% based on relative costs of replacing State's poor condition bridges 25% based on relative costs of rehabilitating State's fair condition bridges but each State receives at least \$45M per FY (22-26)
Other key provisions	 Benefits for "off-system" (non-Federal-aid highway) bridge projects 15% of funds reserved for such projects 100% Federal share if owned by a local agency or Federally-recognized Tribe Sets aside 3% of the funds appropriated for the program for Tribal transportation facility bridges, which shall be administered as if made available under the Tribal Transportation Program

[NEW] Bridge Investment Program (discretionary)

Purpose	Improve bridge (and culvert) condition, safety, efficiency, and reliability
Funding	 \$12.5 B (FY 22-26), including— \$3.3 B (FY 22-26) in Contract Authority from the HTF; and \$9.2 B (FY 22-26) in advance appropriations from the GF
Eligible entities	 State MPO (w/ pop. >200K) Local government Special purpose district or public authority with a transportation function Federal land management agency Tribal government
Eligible projects	 Project to replace, rehabilitate, preserve or protect one or more bridges on the National Bridge Inventory Project to replace or rehabilitate culverts to improve flood control and improve habitat connectivity for aquatic species
Other key provisions	 At least 50% of funding reserved for certain large projects; option for multi-year funding agreements Different process for funding projects ≤\$100 M cost Sets aside average of \$40M per FY for Tribal transportation bridges

Other Bridge-related Provisions

Program/topic	Provisions in the new law
Accommodation of bicycles and pedestrians on bridges (§11133)	 Modifies an existing requirement for highway bridge deck replacement and rehabilitation to provide for safe accommodation of bicycles to also include pedestrians
Bridge terminology (§11524)	 Updates bridge terminology, replacing "structurally deficient" with "in poor condition"
Wildlife habitat connectivity (§11123)	 Requires the Secretary to determine whether bridge or tunnel replacement or rehabilitation projects should include measures to enable safe and unimpeded movement for terrestrial and aquatic species Requires bridge and tunnel inspection training be updated to include techniques to assess passage of aquatic and terrestrial species and habitat restoration potential
National culvert removal, replacement, and restoration grants (§21203)	 New discretionary grant program for projects that would improve or restore passage for anadromous fish \$1.0 B (FY 22-26) in advance appropriations from the GF Eligible entities include States, local governments and Indian Tribes

FOR MORE INFORMATION

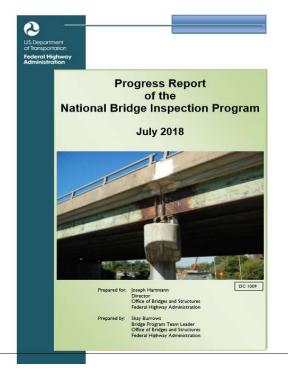
 Please visit: <u>fhwa.dot.gov/bipartisan-infrastructure-law</u>

NBIS

- Enacted on April 27, 1971 by congress
- Prompted by failure of Silver Bridge in WV
- Applies to all publicly owned (and some privately owned) Hwy bridges ≥ 20ft long.
- Requires all states to:
 - Maintain an inventory of HW bridges
 - Have in place a bridge inspection program
 - o Use trained and qualified personnel for bridge inspection...
- Oversight of the NBIP by the Division Bridge since 2011



Annual Nationwide Report Submitted to Congress



NBIS Metrics

23 Metrics	Description
Metric #1	Bridge Organization
Metric #2	Program Manager
Metric #3	Team Leader(s)
Metric #4	Load Rating Engineer
Metric #5	UW Bridge Inspection Diver
Metric #6	Routine - Lower Risk
Metric #7	Routine - Higher Risk
Metric #8	Underwater - Lower Risk
Metric #9	Underwater - Higher Risk
Metric #10	Fracture Critical Member
Metric #11	Damage, In-Depth or Special
Metric #12	Team Leader
Metric #13	Load Rating
Metric #14	Post or Restrict
Metric #15	Bridge Files
Metric #16	Fracture Critical Members
Metric #17	Underwater
Metric #18	Scour Critical Bridges
Metric #19	Complex Bridges
Metric #20	QC/QA
Metric #21	Critical Findings
Metric #22	Prepare and Maintain
Metric #23	Timely Updating of Data

Metrics Compliance Assessment

Three levels of compliance:

- Compliant
- Substantially Compliant
 - Requires Improvement plan (IP)
- Conditionally Complaint
 - Requires a Plan of Corrective Action (PCA)
- Non-Compliance



Center for Accelerating Innovation



Unmanned Aerial Systems (UAS)

Unmanned Aerial Systems

- ☐ What are they?
 - "Drones"
 - Multi-use aircraft controlled from a licensed operator on the ground
 - Coupled with sensors such as high definition cameras and LiDAR
- ☐ What are they used for?
 - Enhanced data acquisition for:
 - > Structural Inspection
 - > Construction Inspection
 - > Emergency Response





Benefits

- ☐ Improved Safety
- ☐ Increased Efficiency
- ☐ Increased Quality
- □ Reduced Costs



"An average cost savings of 40% over traditional inspection methods"

- Minnesota DOT

"Workforce was 45% more productive and the project was completed ahead of schedule"

- Utah DOT

"Reduced lane closures and increased safety for both workers and the traveling public"

- New Jersey DOT

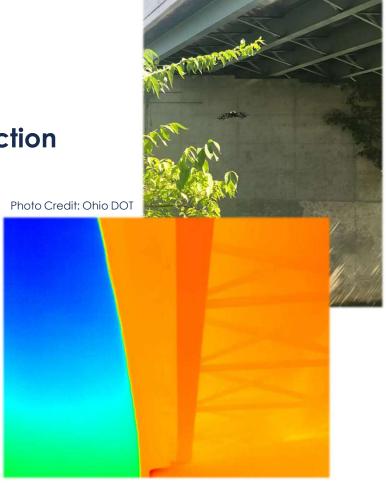


Structural Inspection

- ☐ Bridge Inspection
- ☐ High Mast Lighting
- ☐ Confined Space Inspection
- ☐ Retaining Walls
- **□** Tunnels



Photo Credit: Iowa State University





Construction Inspection

- ☐ Surveying
- □ Routing Inspection
- ☐ Construction Quantities
- ☐ Pre-Construction/Project Scoping
- Work Zone Traffic Monitoring

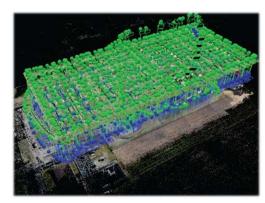


Photo Credit: Ohio DOT



Photo Credit: Ohio DOT



Emergency Response

- ☐ Flooding Events
- **☐** Wind Events
- ☐ Earth Movement (landslides, mudslides, volcanoes)
- ☐ Fire Events
- □ Earthquakes



Photo Credit: North Carolina DOT



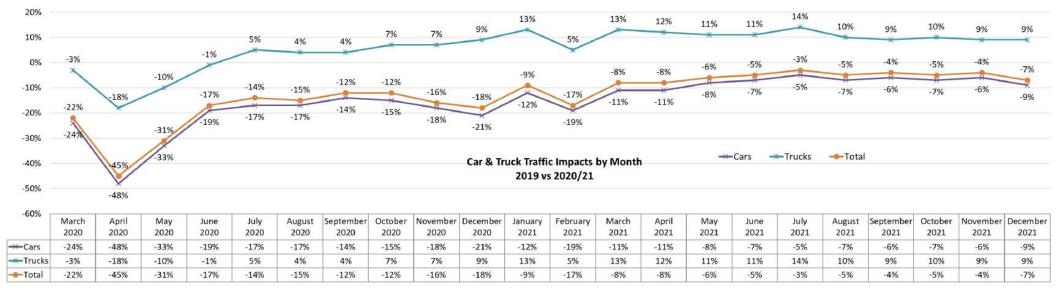
Photo Credit: Ohio DOT

OVERVIEW

- Changing World of Transportation
- Bipartisan Infrastructure Law
- ODOT Bridge Programs



CHANGING TRAFFIC PATTERNS





CHANGING TRAFFIC PATTERNS



TRANSPORTATION SURVEY

- Work From Home up 15%
- Walking up 13%
- E-commerce



CHANGING TRAFFIC PATTERNS

- Congestion is reduced
- Speeds are up



DISTRACTED DRIVING BILL

- Fatalities rose 10% last year to 1356
- Traffic deaths in Ohio have risen seven times in the past eight years.
- HB 283 Hands free bill



REVENUE

SFY 2020 down \$334 million

SFY 2021 down \$163 million



BIGGEST CHANGES FOR OHIO

- 20-30% more revenue
- Grants
- PROTECH
- Carbon Reduction
- Electric Vehicles



GRANTS

- Bridge Discretionary
- Mega Projects
- RAISE Rebuilding American Infrastructure with Sustainability and Equity
- INFRA Infrastructure for Rebuilding America



GRANTS

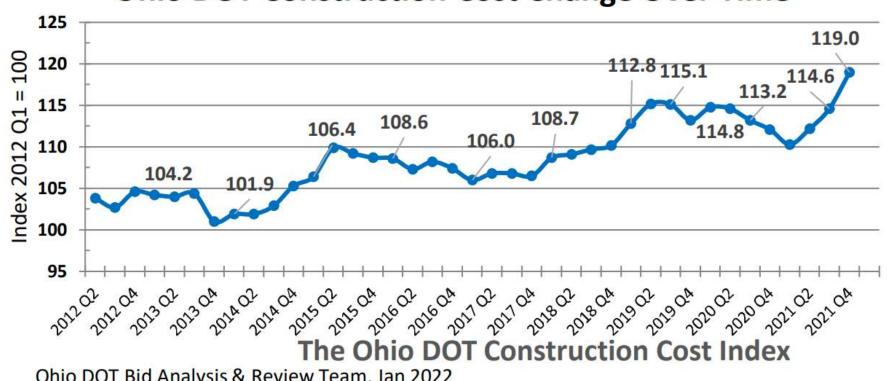
PROTECT - Promoting Resilienct
 Operations for Transformative, Efficient, and Cost-saving Transportation.

Rural Surface Transportation Grant



INFLATION

Ohio DOT Construction Cost Change Over Time



Ohio DOT Bid Analysis & Review Team, Jan 2022



2020/2021 BRIDGE IMPROVEMENTS

SFY 2020

- 4,426 lane miles of pavement improvements.
- \$302M was spent on 1446 Bridges to fix, repair, maintain and replace.

SFY 2021

- 4,333 lane miles of pavement improvements.
- \$253M was spent on 957 bridges to fix, repair, maintain or replace.



ODOT BRIDGE FUNDING

- Bridge Formula funding
 - \$96.7 M Ohio

- Bridge Discretionary
 - \$12.5B over next 5 years



ODOT BRIDGE FUNDING

- ODOT District Bridge \$200M
- ODOT Major Bridge \$95 M
- County CEOA Bridge \$74M
- Municipal bridge \$18.5M
- Local Major Bridge \$20M
 - Reduce threshold from 35,000 to 15,000 sqft



QUESTIONS

Tim.McDonald@dot.ohio.gov

Eric.Ross@dot.gov

