

## National Updates & Discussion: MAP-21

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#### Thank You

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# History of Highway Bills 1956 TO TOMORROW...



#### US Highway Trust Fund, 2013 Pay-as-You-Go Fund

- Revenue from the Federal Fuel (Highway-User) Tax
  - 18.4¢ per gallon of gasoline
  - 24.4¢ per gallon of diesel fuel
  - General Fund Transfers
     (2008, 2009, 2010, 2012)



- FY2013 Three Accounts in HTF:
  - **1**. Highway Account, (15.44¢ per gallon of gasoline)
  - 2. Mass Transit, (2.86¢ per gallon of motor fuel)
  - 3. Leaking Underground Storage Tank (LUST), (0.1¢ per gallon of motor fuel)
    - 1986 Act amend Solid Waste Disposal Act under EPA

#### Revenue from State Fuel Tax Not always dedicated to Roadways

2013 Taxes/Fees	Gas (cpg)	Diesel (cpg)
Ave. US	27.6	33.8
High	51.2	61.1
Low	8	14

Gas Tax State Trend



#### **Highway Trust Fund**

**Q.** "Under which US President was the **gas tax** last increased?"

A. Jimmy Carter
B. Ronald Reagan
C. George H. W. Bush
D. Bill Clinton
E. George W. Bush



#### History of Federal Highway-User Fee



#### Highway Trust Fund





# Legislative Process

FHWA OFFICE OF POLICY & GOVERNMENT AFFAIRS <u>HTTP://WWW.FHWA.DOT.GOV/POLICY/</u>



Figure 1. Congressional Procedures (simplified, typical process)

Office of Policy & Government Affairs



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http://www.fhwa.dot.gov/policy/olsp/financingfederalaid/authact.cfm#fig1 I'm Just a Bill (Schoolhouse Rock!) <u>http://www.youtube.com/watch?v=tyeJ5503Elo</u>





# MAP-21

"PRESERVATION" & PAVEMENTS

Photo source: <u>http://www.utexas.edu/research/tppc/index.html</u>

# Re Authorization of Highway Legislation



#### • MAP-21-

Moving Ahead for Progress in the 21<sup>st</sup> Century Act



Photo source: <a href="http://www.whitehouse.gov/">http://www.whitehouse.gov/</a> <a href="http://commons.wikimedia.org/wiki/File:Cup\_of\_tea">http://commons.wikimedia.org/wiki/File:Cup\_of\_tea</a> (High\_Speed\_Photography)-MJ.jpg

#### MAP-21 Four "Core" Programs

58% National Highway Performance Program (NHPP)

27% Surface Transportation Program (STP)

6% Highway Safety Improvement Program (HSIP)

6%

Congestion Mitigation and Air Quality Program (CMAQ)

#### \$37.7 Billion/Year in formula funding

Surface Transportation Program (\$10.0)

National Highway Performance Program (\$21.8) HSIP (\$2.4)

CMAQ (\$2.4)

Transportation Alternatives (\$0.8) Metro Planning (\$0.3) Ferry (\$0.07)

Note: Amounts in \$ billions

#### MAP-21 Preservation FAQ's

- The word "Preservation" appears 35 times in the Law:
  - 3 Contexts: System (24), Historic (8), & Policy (3)

#### • § 1103. DEFINITIONS

- (a)(3)"(2) Asset management. the term includes preservation...
- (a)(4)(B)"(C)(ii) (ii) by striking "and rehabilitation" and inserting "rehabilitation, and preservation"







# MAP-21

"SECRETARY SHALL ESTABLISH..." (37 TIMES) RULEMAKING

Photo source: <u>http://www.dot.gov/regulations/special-programs</u>

#### Administrative Procedure Act (APA) Pub.L. 79-404, 60 Stat. 237, enacted June 11, 1946 MAP-21 Requirement: 18 months

- Provides for public notice and opportunity for comment on proposed rules,
- Requires an agency to explain the basis and purpose for its rule, and
- Provides for judicial review of the agency's actions.



## Asset Management Requirements in MAP-21

POC: STEPHEN GAJ LEADER, ASSET MANAGEMENT TEAM OFFICE OF ASSET MANAGEMENT, PAVEMENTS, AND CONSTRUCTION

DRAFT Rule with Office of Chief Counsel

#### **INFRASTRUCTURE CONDITION**

#### Maintain the highway infrastructure asset system in a state of good repair.



#### What is asset management?

Asset management is a strategic and systematic process of operating, maintaining, and improving physical assets, with a

focus on economic analysis information, to sequence of preservation, repair, replacement actions and sustain a good repair over assets at minimum



engineering and based upon quality identify a structured maintenance, rehabilitation, and that will achieve desired state of the lifecycle of the practicable cost.

(23 U.S.C. 101(a)(2), MAP-21 § 1103)

#### What does MAP-21 require Us to do?

Enhanced NHS ~ 220,000 miles

- ✓ Interstate
- ✓ All principal arterials
- Intermodal connectors
   STRAHNET -- important to
   U.S. defense

§1104; 23 USC 103

- We (USDOT) will issue a regulation (aka rule) on the process & requirements of a risk-based, asset management plan for the enhanced National Highway System (NHS) (\*) (Rulemaking)
- You (State DOT's) will develop a Plan (\*)

\*( 23 U.S.C. § 119(e)(8), MAP-21 § 1106), Within 18 months of enactment (4/1/14)

**\*\***(23 U.S.C. 119(e)(1), MAP-21 § 1106)



#### What will your Plan include?

NHS pavement & bridge inventory conditions

**Objectives and measures** 

Performance gap identification

Lifecycle cost & risk management analysis

A financial plan

Investment strategies

(preservation)

#### When do you see the draft Rule?

- We (USDOT) issue a draft rule from comment.
  (within 180 days of enactments, April 1<sup>st</sup>, 2014)
- You (State DOTs) have 60 days to provide comment.

• We (USDOT) will have the rule in place by October 1, 2015.



#### What will we do to certify your Plan?

- We will develop a certification process
  - 1. We (USDOT) have a 90 days review period, and...
  - 2. You (State DOTs) have 90 days to cure deficiencies if not certified



# What happens if you don't have a Plan?



- Your (State DOTs) federal share for NHPP will be reduced to 65%
  - NHPP is 58% of the Program
  - No Plan ≈ 20% in federal-aid share
  - Ex. MD SHA
    - NHPP FY13 = \$330,464,636, reduced to \$214,802,013



#### The Plans focuses on National Highway Performance Program

#### ✓ We will recertified you Plans every 4 years



Photo source: http://developmentcrossroads.com/2011/08/i-wouldnt-plan-on-it/



## MAP-21 Pavement Performance – NHPP (more Rulemaking)

POC: THOMAS VAN ASSET MANAGEMENT TEAM OFFICE OF ASSET MANAGEMENT, PAVEMENTS, AND CONSTRUCTION

DRAFT Rule with Office of Chief Counsel

#### What's the process for this Rule?

• We (USDOT) have the same process as the Asset Management Plan, but...

- You (State DOTs) have 90 days to provide comment.
  - "different section of MAP-21"
- We (USDOT) will have the rule in place by October 1, 2015.



#### Pavement Measures | Metrics



#### **TPM Pavement Goal**



 We (FHWA) will establish measures for you (State DOTs) to assess condition of the Interstate & the enhanced NHS...



- With minimum Standards for the Interstate ONLY
  - Example <u>ONLY</u>: Max 7 <sup>1</sup>⁄2 % of Interstate in POOR
- Currently 6 Agencies have > 7 ½ % of their Interstate in POOR condition based on IRI (>170 in/mile) only (1 out of 3), based on 2011 HPMS Data



#### In 2011 – National Highway System Source: USDOT HPMS



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# Americans with Disabilities Act of 1990

SENATOR TOM HARKIN (D-IA), AUTHORED THE BILL



#### Americans with Disabilities Act (ADA ) of 1990

>A civil rights statute

Prohibits discrimination against people with disabilities in all aspects of life, including transportation.

USDOJ has designated USDOT as the federal agency responsible for overseeing and implementing ADA compliance

**FHWA's Responsibility**: The implementation of ADA pedestrian access requirements.

#### New Joint Ruling DOJ / DOT-FHWA



 DOJ Regulation (28 CFR 35.151(i)): Altered streets, roads, and highways must contain curb ramps where there are curbs or other barriers to a pedestrian walkway (i.e., sidewalk).
 DOJ and DOT (FHWA) - Met in 2012 to 2013 to provide clarity and consistency of what is considered an alternation vs. maintenance.
 Maintenance applications do not require curb ramps at the time of improvement.

#### Pavement Treatment Types (Maintenance vs. Alteration)

### MAINTENANCE

Chip Seals Crack Filling and Sealing Diamond Grinding Dowel Bar Retrofit Fog Seals Joint Crack Seals Joint repairs

Pavement Patching

Scrub Sealing Slurry Seals Spot High-Friction Treatments Surface Sealing

Addition of New Layer of Asphalt Cape Seals Hot In-Place Recycling Microsurfacing / Thin-Lift Overlay Mill & Fill / Mill & Overlay New Construction Open-graded Surface Course Rehabilitation and Reconstruction Pavement Treatment Types (Maintenance vs. Alteration)

# MAINTENANCE Potholes

Ø

TION

# ALTERATION Everything Else (besides potholes)













#### What is SHRP<sub>2</sub>?

Tools to save lives, save money, save time.

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Products developed from objective, credible research



 Solutions that respond to challenges of the transportation community – safety, aging infrastructure, congestion



- Collaborative effort of AASHTO, FHWA, and TRB
- Tested products, refined in the field

SHRP2 Solutions offer new technologies and processes to enhance the efficiency of transportation agencies

#### Focus Areas



**Safety**: fostering safer driving through analysis of driver, roadway and vehicle factors in crashes, near crashes, and ordinary driving



**Renewal**: rapid maintenance and repair of the deteriorating infrastructure using already-available resources, innovations and technologies



**Capacity**: planning and designing a highway system that offers minimum disruption and meets the environmental, and economic needs of the community

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**Reliability**: reducing congestion and creating more predictable travel times through better operations

#### **Implementing SHRP2 Solutions**

#### **Moving Forward**

- 66 high-priority products introduced over the next several years
- Users run the gamut of the transportation industry
- Selected products integrated into current transportation practices



#### SHRP2 Implementation Assistance Program

#### **FHWA Assistance Opportunities**

- Designed to help State DOTs, MPOs, local agencies, and other interested organizations deploy SHRP2 Solutions
- Round 1 Announced in May, 2013
- Round 2 Announced Sept 6, 2013
- Round 3
  - > Application Period Jan 17 Feb 14, 2014
  - Announcement Anticipated mid-to-late Mar 2014
- Round 4 Anticipate in Jun 2014

#### Implementation Assistance: Round 1

• **Recipients:** 34 states, DC, 11 regional/MPOs, 1 tribal entity

• **108 total projects** undertaken through the program:

- Ro4 Innovative Bridge Designs for Rapid Renewal: 9 projects MA, RI, VT
- Ro9 Managing Risk in Rapid Renewal Projects: 2 projects MA
- R10 Innovative Strategies for Managing Complex Projects: 5 projects MA
- R26 Preservation on High-Vol-Traffic Roadways: 51 projects DE, DC, ME, MA, PA, RI
- Co6 Implementing Eco-Logical 14 projects ME, NH

Lo1/06 - Organizing for Reliability Tools: 27 projects DC, MD, NH, PA, RI, NY

#### R26 - Preservation for High Traffic Volume Roadways

#### Goal of the Product :

Provide effective guidance that will enable transportation agencies to extend the service life of a roadway, save construction or rehab costs, and reduce work zone accidents.

#### **Objectives of Product:**

Step-by-step process to identify the best repair techniques based on specific pavement needs and conditions

Method for weighing various technical inputs and selecting the most appropriate treatments

**Decision matrices** 



#### Implementation Assistance: Round 2:

C19 - Expediting Project Delivery: 12 Agencies MA, VT
 Strategies for addressing or avoiding common constraints to speed delivery of trans. planning and environment review projects.

• Ro7 - Performance Specifications for Rapid Renewal: 4 Agencies ME, VT Performance specs to speed construction, reduce oversight, and encourage innovation.

 Ro9 - Managing Risk in Rapid Renewal Projects: 4 Agencies PA Innovative strategies for evaluating risk and managing complex projects.

R16 - Railroad-DOT Mitigation Strategies: 7 Agencies PA
 Resources that streamline permitting processes, improve public involvement, and support rapid decision making to reduce delays.

#### Implementation Assistance: Round 3:

• C20 – Freight Demand Modeling and Data Improvement

An organizational approach to achieving improved freight data sets and freight modeling practices.

• Ro2 – GeoTech Tools

The technology selection tool and resource identifies more than 40 geotechnical solutions to common embankment, cut slope, structure/foundation interface, and pavement foundation issues.

• Ro5 – Precast Concrete Pavement

Tools for using precast concrete pavement (PCP) systems to reduce the duration of construction closures on critical roadways.

• R15B – Identifying and Managing Utility Conflicts

Improving cooperation among highway agencies and utilities for faster project delivery.

R23 – Using Existing Pavement in Place and Achieving Long Life

Guidelines for using existing pavements in rapid construction to extend pavement life and save money.

#### Implementation Assistance Proposed Round 4:

- Ro1A Technologies to Store, Retrieve, and Use 3D Utility Location Data
- Ro6A Nondestructive Testing Technologies for Concrete Bridge Decks
- Ro6G Mapping Defects in or Behind Tunnel Linings
- Ro6C Rapid Technologies to Enhance Quality Control on Asphalt Pavements
- Ro9 Managing Risk in Rapid Renewal Projects
- R10 Innovative Strategies for Managing Complex Projects
- R19A Designing and Preserving Bridges to Achieve a 100-Year Service Life
- R21 Composite Pavement Systems
- Co3 & C11 T-PICS / Economic Analysis Tools
- C10 Integrated Travel Demand Modeling
- Lo2/05/07/08/37/38 Reliability Data and Analysis Tools (Bundle)

#### SHRP2 on the Web • goSHRP2 website

www.fhwa.dot.gov/goSHRP2

- Product details
- Information about SHRP2 implementation phase
- SHRP2 @TRB <u>www.TRB.org/SHRP2</u>
  - Information about research phase
- SHRP2 @AASHTO http://SHRP2.transportation.org
  - Implementation information for AASHTO members



#### FOR MORE INFORMATION VISIT THE SHRP2 DISPLAY BOOTH!!

Contact Information

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