



25th Regional Local Road Conference

October 20-21, 2010

FHWA Update

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Discussion Areas

- FHWA Briefly
- Federal Funding
- FHWA Focus
 - Recovery Act
 - Every Day Counts



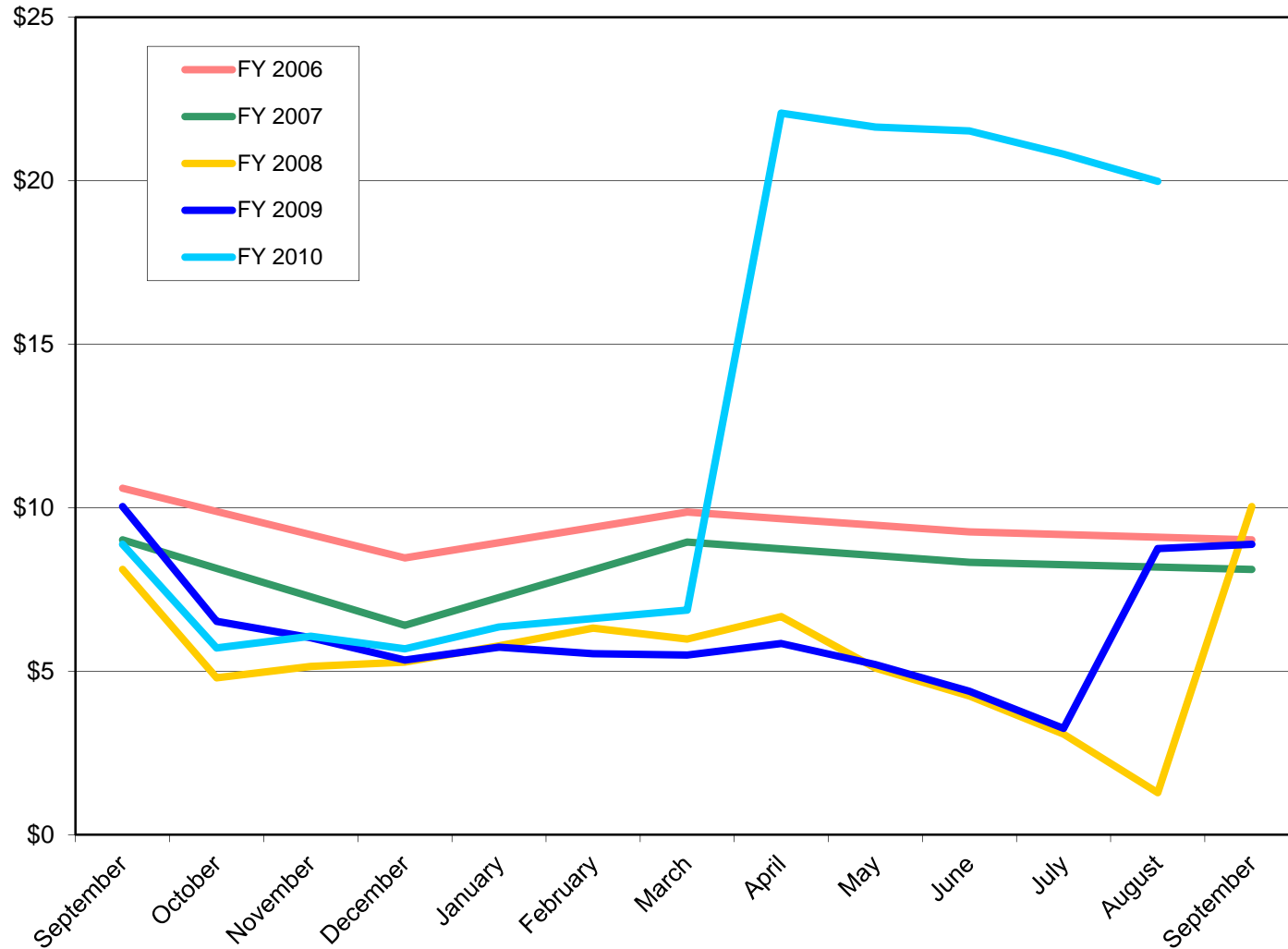
FHWA Briefly: Who are we?

- **Money:** About \$40B Federal Highway Funds
- **Legislated Mission:** “...provide for a strong and vigorous national economy...” 23 USC 101(b) *(and associated regulations)*
- **What we aspire to:** Improve Mobility on our Nation’s Highways Through National Leadership, Innovation, and Program Delivery.
- **What the public expects:** Safety and fiscal integrity, emergency response...

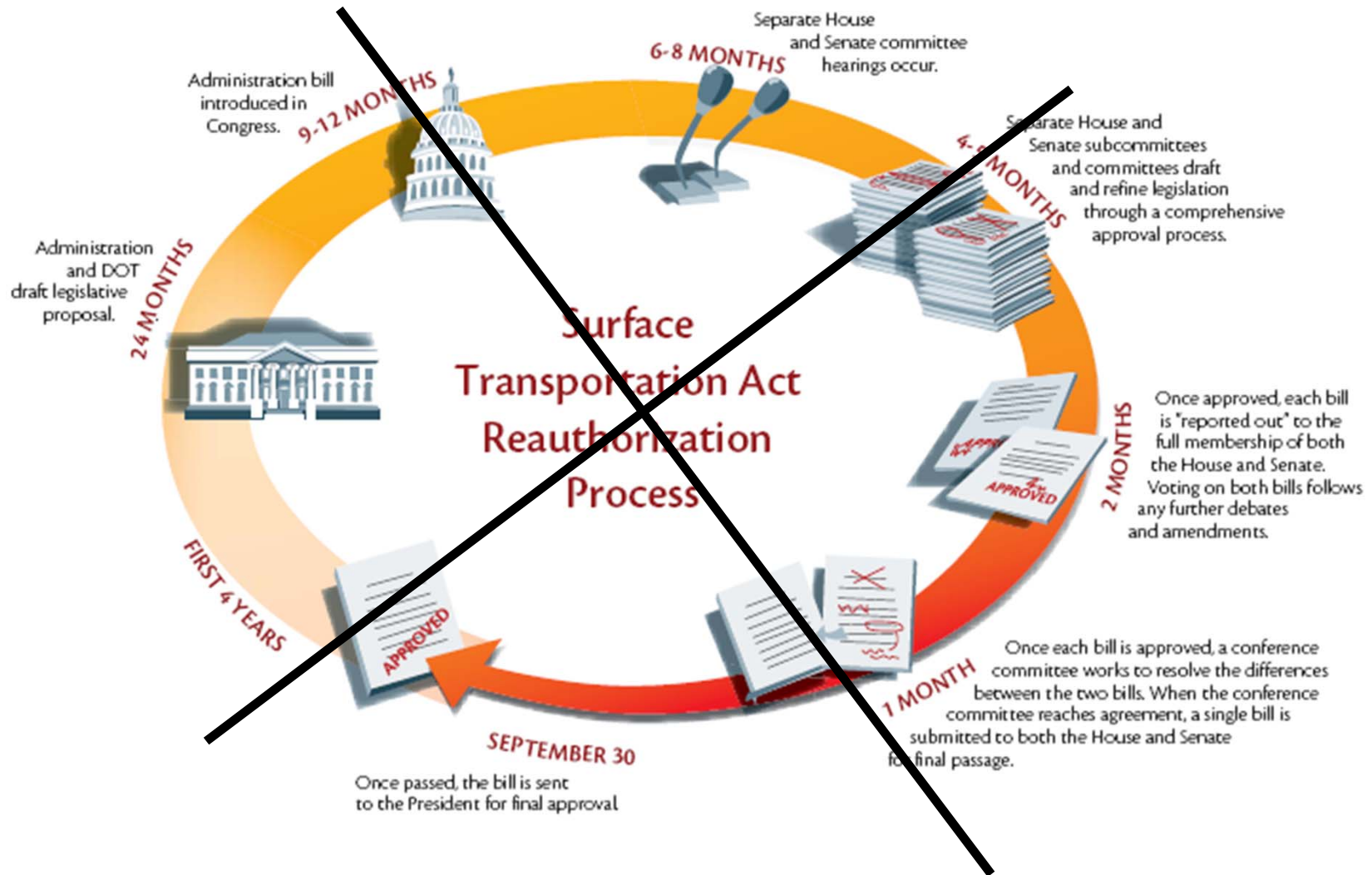


Highway Trust Fund Account Balance

(billions of dollars)



Ending balance for FY 2008 includes \$8.017 billion transferred from the General Fund in September pursuant to Public Law 110-318.
 Ending balance for FY 2009 includes \$7 billion transferred from the General Fund in August pursuant to Public Law 111-46.
 Ending balance for FY 2010 includes \$14.7 billion transferred from the General Fund in April pursuant to Public Law 111-147.





Federal Funding: Critical Issue

- Transportation Reauthorization
 - SAFETEA-LU expired September 30, 2009
 - Extension until December 31, 2010
- FY2011 Appropriations Act
 - Continuing Resolution until December 3, 2010.



Priorities for Reauthorization Bill

- Creating a national infrastructure bank
- Continuing to support states' development of high-speed rail
- Consolidating programs
- Promoting competition and innovation in federal transportation grants



Key USDOT Priorities

- Enhance Safety
- Promote Livable Communities
- Provide Environmental Sustainability
- Achieve Economic Competitiveness
- Keep our Transportation Assets in a State of Good Repair



FHWA Focus: Recovery Act

- 100 percent obligated
- 55 percent expended (nationwide)
- 71 percent expended (nine-state area)

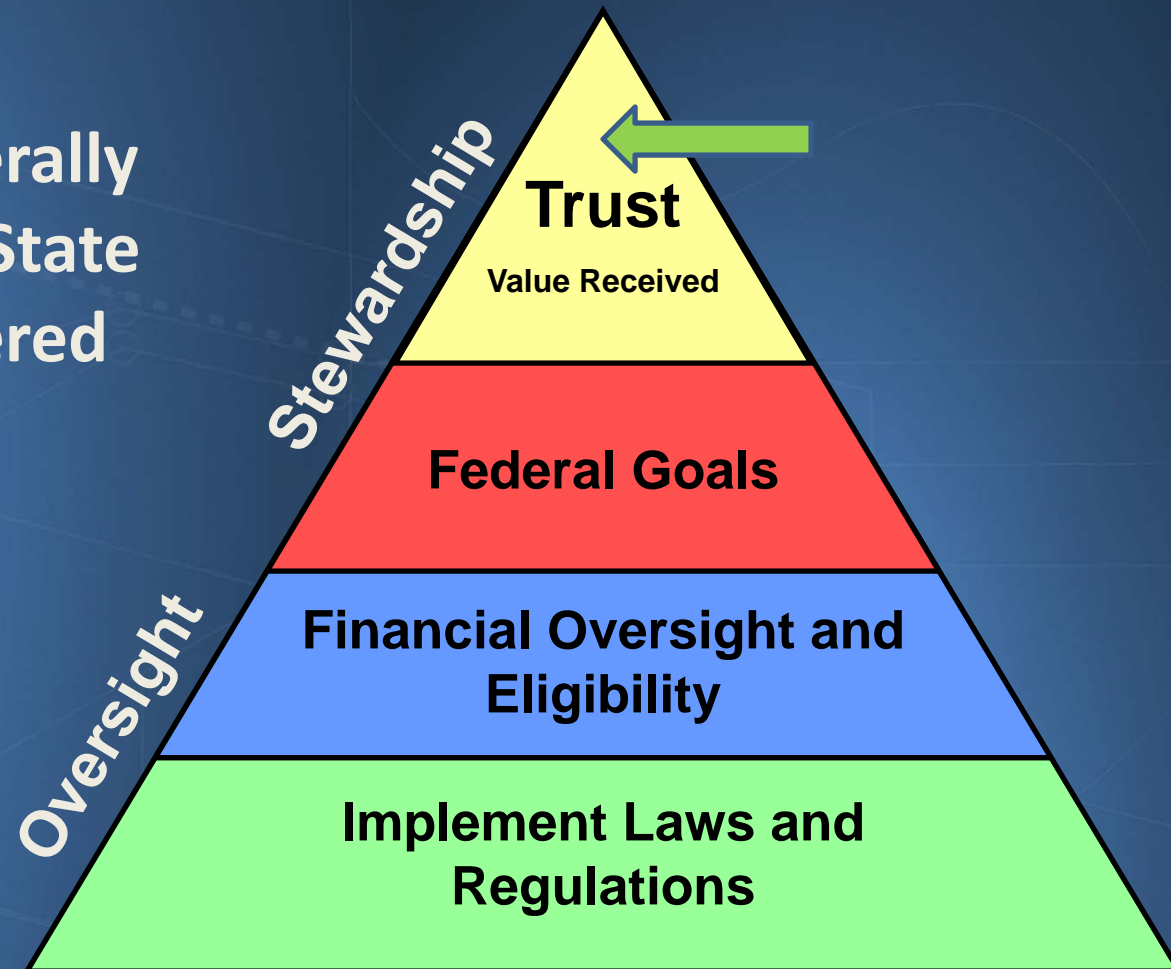




FHWA: Our Role Today

A Partner...

In “A Federally Assisted, State Administered Program”





FHWA Focus: Every Day Counts

- Going Greener initiative (internal)
- Shortening Project Delivery (external)
- Accelerating Technology and Innovation Deployment (external)

<http://www.fhwa.dot.gov/everydaycounts/>



U.S. Department
of Transportation
Federal Highway
Administration



ACCELERATING TECHNOLOGY AND INNOVATION DEPLOYMENT



Why the EDC Technology Initiative?

- How long does it take to deploy innovation in the transportation industry?
 - Change a business practice
 - Replace a design system
 - Replace a construction process...

2 YEARS?

10 YEARS?

5 YEARS?

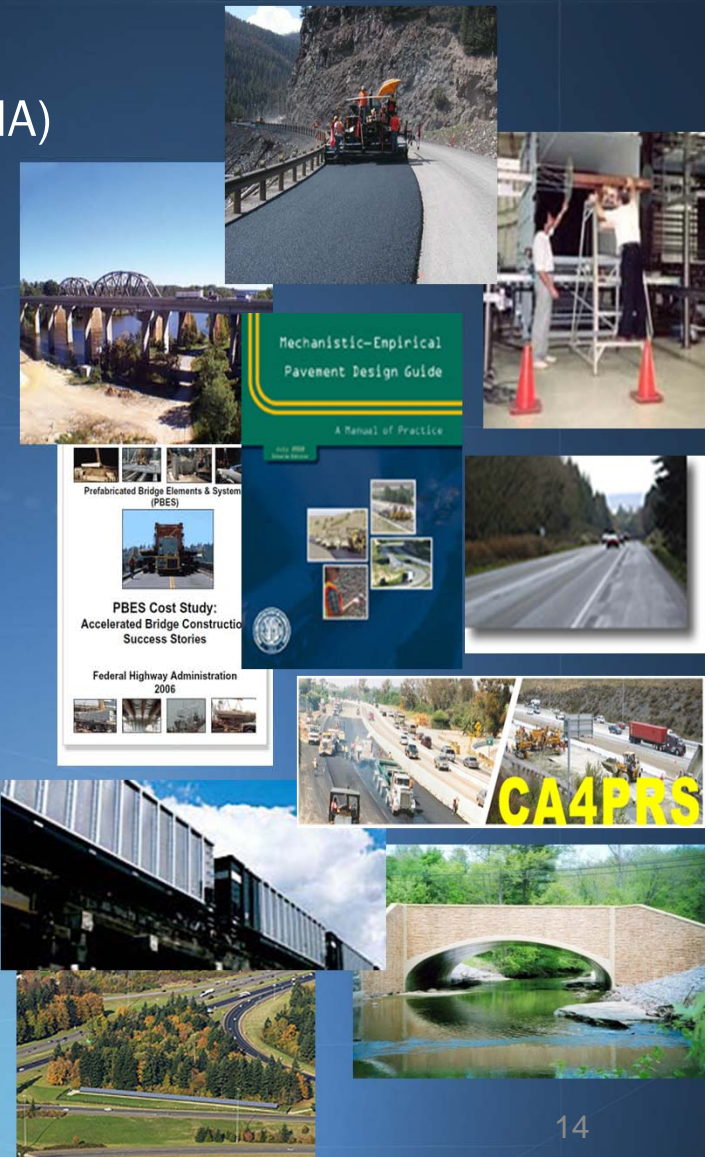
20+ YEARS?





TECHNOLOGIES CONSIDERED:

- Green Pavement (Two lift concrete, RAP, RCA, WMA)
- ABC (PBES, GRS, etc.)
- Bridge Inspections NDE Showcase – BINS
- Precast Pavement
- ACS Lite
- Roadway Departure Prevention
(Safety edge and High friction pavements)
- Alternative Intersection Designs
- Intelligent Construction Technologies
- Mechanistic Empirical Design Guide (MEPDG)
- CA4PRS Tools
- Smart Roadside
- Asset Management Tools
- Advanced Hydraulics Technologies
- Oregon Solar Highway project





A COLLABORATIVE PROCESS

- Input from stakeholders
- Input from FHWA field staff and SHAs
- Technology Rating Panel Recommendations
(January 26th 2010)
- Select Final Technologies
- Innovation Deployment Teams established
for each technology
- Implementation roadmaps, marketing plans,
and performance measures drafted
- Provide training to FHWA field offices
- Meet with stakeholders during Summits





WHAT ARE THE TECHNOLOGIES?

- Warm Mix Asphalt (WMA)
- Prefabricated Bridge Elements (PBE)
- Geosynthetic Reinforced Soil (GRS)
- Safety Edge
- Adaptive Traffic Control Technology (ATCT)





TECHNOLOGY & INNOVATION

Warm Mix Asphalt

Allows a reduction in asphalt mixture production & placement temperatures

Benefits:

- ▶ Provides better compaction
- ▶ Reduce worker fatigue
- ▶ Reduces fossil fuel consumption
- ▶ Reduces CO₂ & other emissions
- ▶ Longer paving season
- ▶ Allows for longer hauling distances
- ▶ Benefits with High RAP





Prefabricated bridge elements and systems manufactured on-site or off-site, under controlled conditions, and brought to the job location ready to install

- ▶ Minimizes traffic & community impact
- ▶ Improves construction zone safety
- ▶ Improves bridge designs constructability
- ▶ Increases quality & lowers life-cycle costs





TECHNOLOGY & INNOVATION

Geosynthetic Reinforced Soil

Fast, cost-effective bridge support method using alternating layers of compacted fill and sheets of geotextile reinforcement to provide bridge support.

Benefits:

- ▶ Eliminates approach slab or construction joint at the bridge-to-road interface
- ▶ Reduced construction time (complete in 10 days)
- ▶ 25 - 60 % less cost vs. standard of construction
- ▶ Less dependent on weather conditions
- ▶ Flexible design – easily modified for unforeseen site conditions
- ▶ Easier to maintain because of fewer parts
- ▶ Built with common equipment and materials





TECHNOLOGY & INNOVATION

Safety Edge

Pavement edge beveled at a 30° angle which allows drivers a more controlled re-entry back onto the roadway after a tire drop-off, if the adjacent graded material settles or erodes

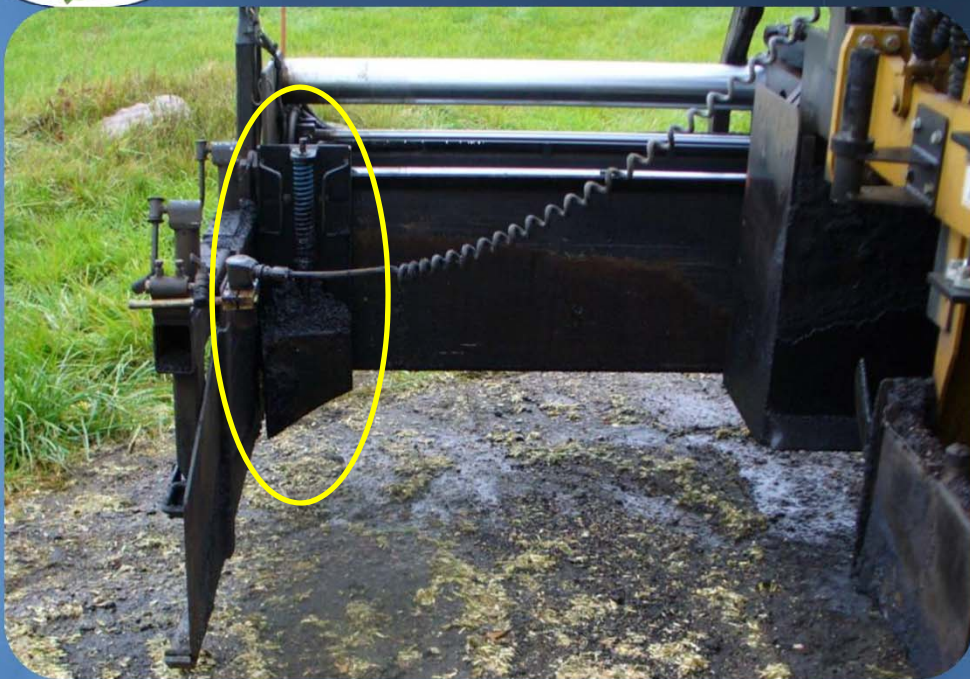
Benefits:

- ▶ Reduces crashes due to edge drop-off and uncontrolled recovery
- ▶ Minimal cost (less than 1% on 2-lane highway)
- ▶ Consolidated asphalt edge reduces edge raveling, increases durability
- ▶ Drop-off mitigation immediately after construction





THE SAFETY EDGE



Re-graded after
paving



Re-grade
shoulder
to top of
pavement



TECHNOLOGY & INNOVATION

Adaptive Traffic Control Technology

ACS measures traffic flow and adjusts signal timing to promote smooth flow of traffic along arterial streets

Benefits:

- ▶ *ACS improves travel time reliability, reduces congestion, smoothes traffic flow*
- ▶ *Increases long-term viability of traffic signal operations*
- ▶ *Widely deployable & uses existing control equipment*





Thank You!

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Buckle Up, Every Trip, Every Time