25th Regional Local Road Conference
October 20-21, 2010

FHWA Update

Wendall L. Meyer
Division Administrator
FHWA North Dakota Division
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”

- Implement Laws and Regulations
- Financial Oversight and Eligibility
- Federal Goals
- Trust Value Received

Oversight
Stewardship
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/
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?  5 YEARS?  10 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 form 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)
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
Prefabri cated Bridge Elements & Systems

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

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

Wendall L. Meyer
Division Administrator
Federal Highway Administration
North Dakota Division
1471 Interstate Loop
Bismarck, ND 58503

Phone: 701-250-4204
Email: NorthDakota.FHWA@dot.gov

Buckle Up, Every Trip, Every Time