



Program Update

Spring 2014



U.S. Department of Transportation
Federal Highway Administration



TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Overview

Program:

- **9 – year research program**
 - Research 90% complete.
 - \$130 M for Implementing 60+ products
- **Renewal Focus Area**
 - Implementation Lead is FHWA Office of Infrastructure
 - Focus on minimum disruption to highway users
 - 28 Products
- **Implementation Assistance**
 - Application process
 - 135 projects in 38 States

Renewal Products

R04: Innovative Bridge Designs for Rapid Renewal.

Product Focus:

- Target is standard everyday bridges.
- Toolkit for prefabricated bridge elements
- Proven techniques

Implementation:

- 7 States Lead Adopters + 1 Federal Project
- Construction this year
- Showcases and other events to follow



Renewal Products

R06A: NDT for Concrete Bridge Decks.

Product Focus:

- Identify appropriate technologies for NDT
- Minimize traffic disruption
- Develop Toolkit for NDE

Implementation:

- Solicitation Planned for Summer 2014
- Toolkit to be available this year
- Showcases and other events to follow

Renewal Products

R06G: NDT for Tunnel Linings.

Product Focus:

- Identify effective technologies for NDT on tunnel linings
- Minimize traffic disruption, keep costs down
- Meet Inspection Requirements

Implementation:

- Solicitation Planned for Summer 2014
- Technology Demonstrations
- Showcases and other events to follow

Renewal Products

R19A: Long Life Design for Bridges.

Product Focus:

- Systematic design for extended service life
- Techniques for new construction and rehabilitation
- Small to medium size bridges

Implementation:

- Solicitation Planned for Summer 2014
- Guides and Training to be available
- Technology Demonstrations
- Showcases and other events to follow



Renewal Products

R19B: Service State Design for Bridges.

Product Focus:

- Longer and more predictable service life
- LRFD Design Service Limits

Implementation:

- Solicitation Planned for early 2015
- Toolkit being developed
- Technology Demonstrations and Showcases planned.

Renewal Products

R05: Precast Concrete Pavement

Product Focus:

- Demonstration of benefits
- Longer and more predictable service life

Implementation:

- 5 States selected to construct demonstration projects
- ETG formed
- Case Studies and Outreach planned.



Renewal Products

R06C: Quality Control of Asphalt Pavements during Construction

Product Focus:

- Use of IR and GPR during Asphalt Pavement Construction
- Improved Quality Control of HMA paving

Implementation:

- Solicitation Planned for Summer 2014
- Technology Demonstrations and Showcases planned.

Renewal Products

R06E: Real-time Concrete Pavement Smoothness (NDT)

Product Focus:

- Improved NDT during Construction
- Smoother and longer lasting pavements

Implementation:

- Solicitation Planned for Summer 2014
- Equipment Lease program
- Workshops and Outreach planned

Renewal Products

R21: Composite Pavements

Product Focus:

- Improved Design for 2-Lift PCC and AC/PCC Composite Pavements
- Improved service life

Implementation:

- Solicitation Planned for 2014
- Construction Projects
- Technology Demonstrations
- Case Studies and Showcases planned



Renewal Products

R23: Pavement Renewal Solutions

Product Focus:

- New guidelines for alternatives to renewal approaches
- Web-based pavement design scoping tool

Implementation:

- 5 States Lead Adopters / 4 States Technical Support
- Scoping Tool now available
- Project Assessment Manual
- Guide Specifications
- Technology Demonstrations and Showcases planned



Renewal Products

R26: Preservation of High-Traffic-Volume Roadways.

Product Focus:

- Extend service life of high-traffic-volume highways
- Identify techniques and methods

Implementation:

- 14 States participating in projects
- Toolkit being developed
- Technology Workshops, Showcases and Peer Exchanges



Participation:

- Open to States and other highway owners
- Incentive funds provided to construct
- Easy Application process
- Several more rounds of projects are coming
- Focus on renewal, preservation, and innovation

Contacts:

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