SHRP2 Bridge Product Implementation Update

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America’s Bridges Need Repair –
SHRP2 is on the Job

Innovative Bridge Designs for Rapid Renewal (R04)

Nondestructive Testing for Concrete Bridge Decks (R06A)
Nondestructive Testing for Tunnel Linings (R06G)

Service Life Design for Bridges (R19A)
Service Limit State Design for Bridges (R19B)
8 states received funding and technical assistance to use the R04 product

SHRP2 Implementation Assistance Projects included:

- Arizona: Gila River Indian Reservation
- California: Fort Goff Creek
- Kentucky: Stewarts Creek
- Maine: Kittery Overpass
- Missouri: Boone County
- Rhode Island: Warren Avenue
- Wisconsin: I-39/94
- Michigan: Seney Wildlife Refuge
R04 Activities

- 3 project showcases
- 3 peer exchanges
- TRB and other conference presentations and workshops
- Trainings for 33 states
- 3 national webinars
- Technical assistance
R04 Resources

Technical assistance
Toolkit - http://trb.org/Main/Blurbs/168046.aspx

AASHTO –
http://shrp2.transportation.org/Pages/Bridge-Designs-for-Rapid-Renewal.aspx

FHWA -
https://fhwa.dot.gov/goshrp2/Solutions/All/R04/Innovative_Bridge_Designs_for_Rapid_Renewal

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## Nondestructive Testing for Concrete Bridge Decks (R06A)

### Round 4

<table>
<thead>
<tr>
<th>State</th>
<th>Methods Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Florida</td>
<td>IR, GPR</td>
</tr>
<tr>
<td>Indiana</td>
<td>IR, GPR, IES</td>
</tr>
<tr>
<td>Iowa</td>
<td>GPR, IES</td>
</tr>
<tr>
<td>Louisiana</td>
<td>IR, GPR</td>
</tr>
<tr>
<td>Missouri</td>
<td>ER</td>
</tr>
<tr>
<td>Oregon</td>
<td>IR, GPR</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>IR, GPR</td>
</tr>
<tr>
<td>Virginia</td>
<td>GPR</td>
</tr>
</tbody>
</table>

### Round 7

<table>
<thead>
<tr>
<th>Testing in all states is ongoing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
</tr>
<tr>
<td>Arkansas</td>
</tr>
<tr>
<td>California</td>
</tr>
<tr>
<td>Delaware</td>
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<tr>
<td>Georgia</td>
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<td>Hawaii</td>
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<td>Kentucky</td>
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<tr>
<td>Nebraska</td>
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<tr>
<td>New Mexico</td>
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<tr>
<td>New York</td>
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<tr>
<td>North Dakota</td>
</tr>
<tr>
<td>Oregon</td>
</tr>
</tbody>
</table>
Nondestructive Testing for Concrete Tunnel Lining (R06G)

Round 4
- Colorado
  - IR, LiDAR
- Pennsylvania
  - IR, GPR, IE, SASW, Imaging

Round 7
- Colorado
- California
- Oregon
- Virginia
R06A/G Activities

- 2 Showcases (R06G)
- Conference presentations
- 2 webinars
- Panel at SMT NDE/NDT Conference in August
R06A/G Resources

Technical assistance
AASHTO –
http://shrp2.transportation.org/Pages/R06_NondestructiveTesting.aspx

FHWA -
R06A
https://fhwa.dot.gov/goshrp2/Solutions/Renewal/R06A/Nondestructive_Testing_for_Concrete_Bridge_Decks
R06G

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Service Life Design for Bridges (R19A)

**Round 4**
Iowa
Oregon
Pennsylvania
Virginia
FHWA-Central Federal Lands

**Round 7**
Iowa
Maine
R19A Activities & Resources

• Technical papers and calculations
• Academic toolbox
• 5 peer exchanges

Technical assistance
AASHTO –
http://shrp2.transportation.org/Pages/ServiceLifeDesignforBridges.asp

FHWA -
https://fhwa.dot.gov/goshrp2/Solutions/All/R19A/Service_Life_Design_for_Bridges

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Service Limit State Design for Bridges (R19B)

Round 7: California and FHWA-Central Federal Lands

- 3 state trainings
- 2 white papers
- Technical support to T-15

AASHTO –
http://shrp2.transportation.org/Pages/R19B_ServiceLimitStateDesignforBridges.aspx

FHWA -
https://fhwa.dot.gov/goshrp2/Solutions/Available/R19B/Service_Limit_State_Design_for_Bridges

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Questions?