FHWA Update

AASHTO Committee on Maintenance
July 21-26, 2018
Charlotte, NC

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TEAM LEADER, CONSTRUCTION
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Overview

- Every Day Counts (EDC)
  - EDC-4 Implementation
  - EDC-5 Launch
- Bridge Preservation Guide
- Maintenance Leadership Academy (MLA)
- Building Information Modeling (BIM) for Infrastructure
FHWA Every Day Counts (EDC)

Market-ready + Proven + Underutilized

Visit FHWA Website:  https://www.fhwa.dot.gov/innovation/everydaycounts/edc_5/
Launching EDC-5

Safety
- Rural Roadway Departure
- STEP 2.0

Mobility
- Crowdsourcing
- Weather-Response

Shortening Project Delivery
- Project Bundling
- Value Capture

Quality
- UAS
- Advanced Geotech
- CHANGE 2.0

Environment
- Virtual Public Involvement
## EDC-5 Summits Locations

<table>
<thead>
<tr>
<th>Region</th>
<th>Date</th>
<th>Hotel</th>
<th>Location</th>
<th>States</th>
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<tbody>
<tr>
<td>DC</td>
<td>Thurs/Fri</td>
<td>Hilton</td>
<td>Baltimore, Maryland</td>
<td>DC, DE, VA, MD, NJ, PA, OH, WV, FL, FLH</td>
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<tr>
<td>North</td>
<td>Wed/Thur</td>
<td>Hilton</td>
<td>Albany, New York</td>
<td>ME, NH, VT, NY, MA, CT, RI, INFAVATION</td>
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<tr>
<td>Mid-America</td>
<td>Mon/Tues</td>
<td>Sheraton Westport</td>
<td>St. Louis, Missouri</td>
<td>ND, SD, NE, KS, OK, TX, MN, IA, MO, WI, IL, IN, MI</td>
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<tr>
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<td>DoubleTree by Hilton</td>
<td>Portland, Oregon</td>
<td>WA, OR, CA, NV, AZ, UT, NM, CO, WY, MT, ID, AK, HI, WFL, CFL</td>
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<tr>
<td>South</td>
<td>Tues/Wed</td>
<td>The Florida Hotel</td>
<td>Orlando, Florida</td>
<td>PR, VI, FL, LA, MS, AR, AL, GA, SC, NC, TN, KY</td>
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EDC-4: Pavement Preservation Deployment Activities

- **Best Practice Guide**
  - Flexible-surfaced: Nevada DOT
  - Rigid-surfaced: Missouri DOT
  [Completed:](https://library.modot.mo.gov/RDT/reports/TR201618/cmr17-013.pdf)

- **Peer-to-Peer Exchanges**
  - Match lead States with exploring States

- **Updated Specifications**
  - Will be collected during peer exchanges

- **Updated Pavement Preservation Checklist**
  - Add video for common inspection tasks
  - Create app for tablet and smartphone functionality
EDC-4: Pavement Preservation Deployment Activities

- **Web-based Training for Flexible Pavement**
  - Microsurfacing
  - Chip Seal
  - Slurry Seal/Scrub Seal
  - Ultrathin Bonded Wearing Course
  - Completed: see link below

- **Web-based Training for Rigid Pavement**
  - Diamond grinding
  - Partial-depth repair
  - Full-depth repair
  - Dowel bar retrofit/cross stitching
  - JOINT SEAL (ADDED)
    - Under contract
Single contract award for preservation, rehabilitation, or replacement of several highway or bridge projects

FAST Act encourages bridge bundling to save time and cost

Bridge Bundling Guidebook under development

Goal to expand bundling beyond bridges to include all project types, efficiently improving the condition of the Nation’s highways
EDC-5: Unmanned Aerial Systems (UAS)

- FHWA National UAS Roundtable
- NCHRP Domestic Scan
- World Road Association (PIARC) Report and Webinar
- Tech Briefs Development
- Bridge Inspection Data Management Study
- Website Development
10 selectees announced on May 9, 2018
- Choctaw Nation of Oklahoma, Durant, OK
- City of San Diego, CA
- Innovation and Entrepreneurship Investment Authority, Herndon, VA
- Kansas Department of Transportation, Topeka, KS
- Lee County Mosquito Control District, Ft. Myers, FL
- Memphis-Shelby County Airport Authority, Memphis, TN
- North Carolina Department of Transportation, Raleigh, NC
- North Dakota Department of Transportation, Bismarck, ND
- City of Reno, NV
- University of Alaska-Fairbanks, Fairbanks, AK
Bridge Preservation Guide

Bridge Preservation Guide, Spring 2018

- Available online at: www.fhwa.dot.gov/bridge/preservation/guide/
- Identifies cyclical and condition-based preventive maintenance activities for consistency throughout the nation
- Defines routine maintenance and activities not eligible for Federal funds
- “How to” establish a bridge preservation program
A 12-week academy-style event comprising over 100 hours of training

Supports workforce development

Helps newer supervisors and top employees acclimate quickly to expanding maintenance leadership roles

Improves decision-making, resource management, communication and technical knowledge

Skills and knowledge can be applied on the job immediately
3 modules being updated
- Weather-Related Operations
- Traffic Services, Safety, and Work Zones
- Environmental Protection

Next Steps: Update remaining 3 modules, including web-based training
- Maintenance Administration
- System and Bridge Preservation
- Roadside Maintenance and Drainage

Goals
- Reduce independent study completed outside of class
- Add new topics - automated vehicle location for maintenance equipment, fleet management systems, emergency response, etc.
Maintenance professionals from neighboring State DOTs and local agencies participate in joint academy.

Participants share best practices and build their professional networks while gaining invaluable technical knowledge.

Hosts: Washington, Nevada, & Tennessee (tentative)
What is BIM for Infrastructure?

- A vague concept
- 3D modeling
- Digital data workflow
- Data integration
- Data interoperability
- Data governance
- Data extraction
- Used in all phases...continues throughout lifecycle of asset
Thank You!

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