

# AASHTOWare Project Status

FieldManager & Contract Management Conference

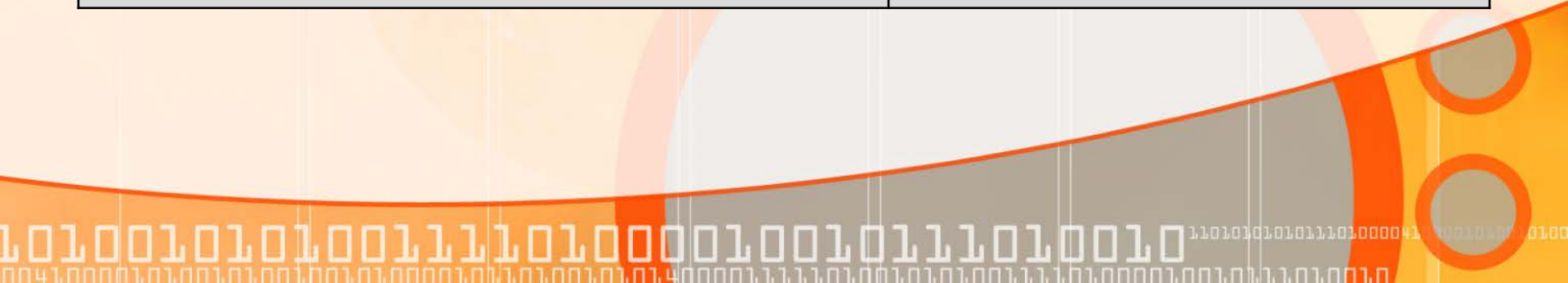
March 30, 2016

# Background

- *AASHTOWare Project (AP) is an enterprise-wide software solution developed by AASHTO for managing an agency's construction program*
  - *Capabilities encompass the full functionality of a construction contract management system*
  - *Includes cost estimation, proposal preparation, bid-letting, construction and material management, and historical data collection & analysis*
- *MDOT uses AP to manage and process virtually all aspects of Michigan's road, bridge, airport, and railroad construction project life cycles*
- *The software is critical to MDOT carrying out its mission*
- *Current legacy AP systems utilize client/server based technology which is becoming obsolete*
- *Major endeavor underway to replace existing client/server based systems with a web based system*

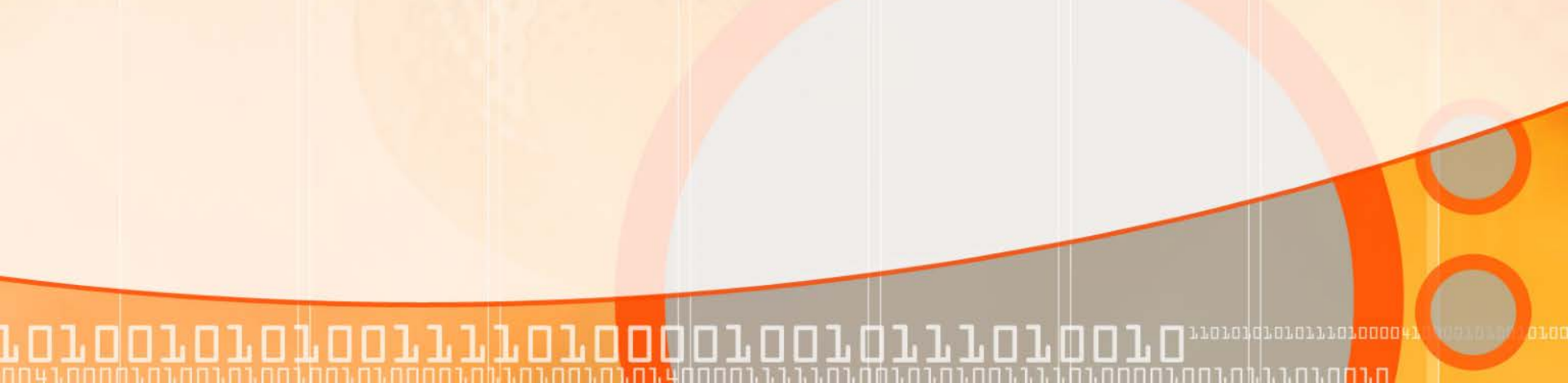
# Legacy Systems / Replacement Modules

<b>Legacy System</b>	<b>AP Replacement Module</b>
<ul style="list-style-type: none"> <li>• Proposal and Estimates System (PES)</li> <li>• Letting and Awards System (LAS)</li> </ul>	<ul style="list-style-type: none"> <li>• Preconstruction</li> </ul>
<ul style="list-style-type: none"> <li>• FieldManager Software Suite</li> <li>• FieldNet System</li> <li>• Construction Administration System (CAS)</li> <li>• Materials Testing System (MTS)</li> </ul>	<ul style="list-style-type: none"> <li>• Construction/Materials</li> </ul>
<ul style="list-style-type: none"> <li>• Expedite</li> </ul>	<ul style="list-style-type: none"> <li>• Bids</li> </ul>
<ul style="list-style-type: none"> <li>• N/A</li> </ul>	<ul style="list-style-type: none"> <li>• Civil Rights &amp; Labor</li> </ul>



# Projects Needed To Move Forward With Web System

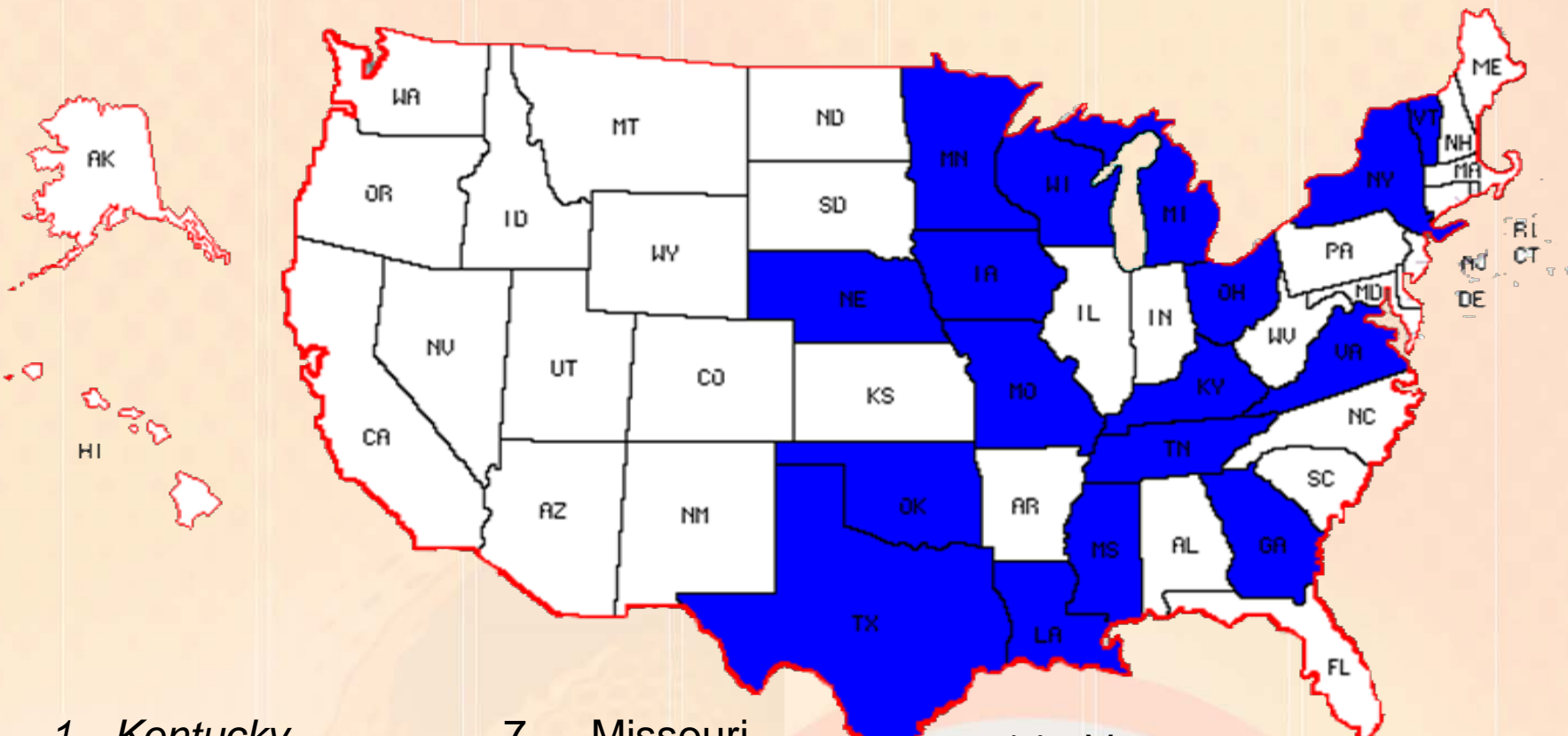
Project	Actual/Est. Begin Year	Actual/Est. End Year
Preconstruction Analysis/Preparation	2011	2014
Construction/Materials Development	2011	2014
Preconstruction Implementation	2013	2014
AASHTOWare Project 3.01 Development	2014	2016
Construction/Materials Analysis/Preparation	2015	2016
Construction/Materials Implementation	2016	2018
Construction/Materials Analysis/Preparation – Phase II	2018	2019
Construction/Materials Implementation – Phase II	2019	2020
Civil Rights & Labor / LCPTracker Gap Analysis	TBD	TBD
Civil Rights & Labor Analysis/Preparation	TBD	TBD
Civil Rights & Labor Implementation	TBD	TBD



# Construction/Materials Development Project

- *Software design and engineering required to develop the Construction/Materials module of AP*
- *Michigan partnered with AASHTO on the project:*
  - *Served as champion state with nationwide leadership role*
  - *MDOT's system requirements were included in project*
  - *Provided project management and oversight assistance*
  - *Provided staff for comprehensive hands-on participation*
  - *Provided funding contribution*
- *Partnership benefits included:*
  - *AASHTO and other states provided majority of funding*
  - *Utilized expertise of AASHTO committee members for “best business practices” (16 states participated)*
- *Project completed and software has been delivered*

# States That Participated In Construction/Materials Project



- 1. *Kentucky*
- 2. *Louisiana*
- 3. *Georgia*
- 4. *Iowa*
- 5. *Michigan*
- 6. *Minnesota*

- 7. Missouri
- 8. Nebraska
- 9. New York
- 10. Ohio
- 11. Oklahoma
- 12. Tennessee
- 13. Texas

- 14. Vermont
- 15. Virginia
- 16. Wisconsin



# Construction/Materials Software

- *Construction/Materials contains all applicable functionality in FieldManager and CAS*
- *Also includes significant amount of new functionality:*
  - *Electronic approvals for:*
    - *Contract Modifications*
    - *IDRs*
    - *Pay Estimates*
    - *Contractor Performance Evaluations*
  - *Historical reports*
  - *Ability to go paperless in many areas including:*
    - *Contract Modifications*
    - *IDRs*
    - *Pay Estimates*
    - *Contractor Performance Evaluations*
  - *Event notifications*
  - *Materials source & facility oversight*

# Construction/Materials Software (cont)

- *New functionality (cont):*
  - *User roles*
  - *Enhanced security*
- *Interfaces with Mobile Inspector app which allows inspectors to create IDRs using a mobile device (tablets, smart phones)*
- *Improved/reengineered functionality in many areas including:*
  - *IDRs*
  - *Material approvals*
  - *Material usage*
  - *Stockpiles*
- *Web based system will streamline and eliminate:*
  - *FieldNet*
  - *Sending read-only copies of contracts to contractors*
  - *Client software installs and upgrades*



# Construction/Materials Software (cont)

- *Many enterprise level agency customization options including ability to:*
  - *Customize field labels*
  - *Customize screens*
  - *Insert external links on screens*
  - *Customize reports*
  - *Develop and embed new reports*
  - *Locate user access to reports based on business task at hand*
- *Hundreds of enterprise level agency configuration options which will allow MDOT to configure software based on MDOT business rules*
- *New user interface:*
  - *Does not look like FieldManager*
  - *Looks like a web application*

# Construction/Materials Software (cont)

- *Will use standardized AASHTO terminology as much as possible - changes include:*
  - *Inspector's Daily Report -> Daily Work Report*
  - *Contract Modification -> Change Order*
  - *Construction Pay Estimate Report -> Payment Estimate For Contractor*
  - *Contractor's Performance Evaluation -> Contractor Evaluation*
  - *National Pollutant Discharge Elimination System -> Stormwater Environmental Compliance Inspection Report*
  - *Site Times - > Contract Times*
- *Consultants will not have to pay Construction/Materials license fees*

# Construction/Materials Analysis/Preparation Project

- *Conducts the analysis work and tasks required to prepare the Construction/Materials software for implementation*
- *Project is currently underway*
- *Work includes:*
  - *Conduct gap analysis between Construction/Materials and predecessor systems*
  - *Breakdown study*
  - *Preparation work required to migrate FieldManager/CAS data, interfaces, reports, and business processes to Construction/Materials*
  - *Configure software for MDOT's business processes*
  - *Identify and apply customizations needed*
  - *Prepare software for external access*
  - *Develop and customize reports*

# Construction/Materials Analysis/Prep. Project (cont)

- *Work includes (cont):*
  - *Test software in SOM environment*
  - *Upgrade interface systems to interface with Construction/Materials instead of FieldManager/CAS*
  - *Develop business change management plan*
    - *Business process changes*
    - *Policy and procedure changes*
    - *Communication campaign*
  - *Develop training plan*
    - *MDOT, local, consultant and contractor staff will require training*
  - *Develop implementation plan*
- *Currently in design/build phases*
- *Estimated completion is November, 2016*

# Construction/Materials Implementation Approach

- *Part of implementation plan*
- *Want to minimize risk and disruption to user community as much as possible*
- *Current plan is to implement in stages:*
  - *Stage 1: Limited Production*
  - *Stage 2: Transition To Full Production For All New Contracts*
  - *Stage 3: Migrate Remaining FieldManager/CAS Contracts to Construction/Materials*
  - *Stage 4: FieldManager Archived Contracts*
  - *Stage 5: Decommission FieldManager, FieldNet, CAS*

# Construction/Materials Impact To Contractors

- *Contractors will not have to pay C/M license fees*
- *Authorized contractor staff will receive Login ID for C/M*
- *Eliminates receiving read-only copies of contracts via FieldNet*
- *Contractors will have real time read-only access to reports & screens with information currently in FieldManager*
- *Change Order (Cont. Mod.) approvals will be done in C/M*
  - *Contractor firms will need to specify staff authorized to approve Change Orders*
- *Contractor Evaluation (CPE) notifications and reviews will be done in C/M*
  - *Contractor firms will need to specify staff authorized to review Contractor Evaluations*
- *Training is still TBD*

# Const/Materials Use For Non-MDOT Let Contracts

- *State of Michigan will host Construction/Materials software for MDOT let contracts only*
- *FieldManager will continue to be available for non-MDOT let contracts for awhile after MDOT has implemented Construction/Materials*
- *Potential tools that could be used for non-MDOT let contracts after FieldManager is no longer available include:*
  - *Michigan Tech's Michigan Engineers' Resource Library (MERL) software*
    - See <http://merl.michiganlta.org/about> for information
  - *AASHTO contractor's (Info Tech) Appia software*
    - See <https://www.infotechfl.com/appia> for information

# AASHTOWare Project 3.01 Development Project

- *Software design and engineering required to develop AP release 3.01*
- *Project currently in alpha testing phase*
- *Provides major functionality improvements to all the web based AP modules including Construction/Materials*
- *Construction/Materials enhancements include:*
  - *Storm water environmental compliance inspection functionality*
  - *Force account functionality*
  - *Ability to create and maintain meeting records*



- *Construction/Materials enhancements (cont):*
  - *Materials management additions:*
    - *Material requirements*
    - *Laboratory information management*
    - *Material sampling and testing*
  - *Ability to go paperless in additional areas including:*
    - *Material Test Reports*
    - *Material Test Certifications*
  - *Various user interface improvements*
- *Currently scheduled for completion Sept, 2016*
- *Software will likely be implemented as part of Construction/Materials Implementation – Phase II project*

# Questions?

*Kevin Fox*

*AASHTOWare Program Manager*

*Michigan Department of Transportation / Department of  
Technology, Management & Budget*

*517-322-6223*

*foxk@michigan.gov*

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