

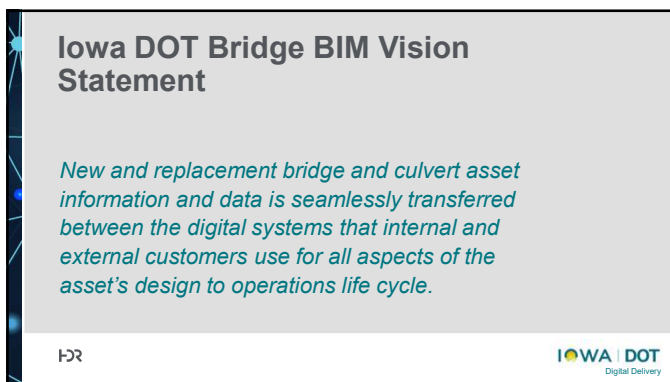


Digital Project Delivery in Practice: BIM for Bridges at the Iowa DOT

Iowa Transportation Conference
August 26, 2026

Presenters:
Thomas Hamski, Iowa DOT
Grant Schmitz, HDR

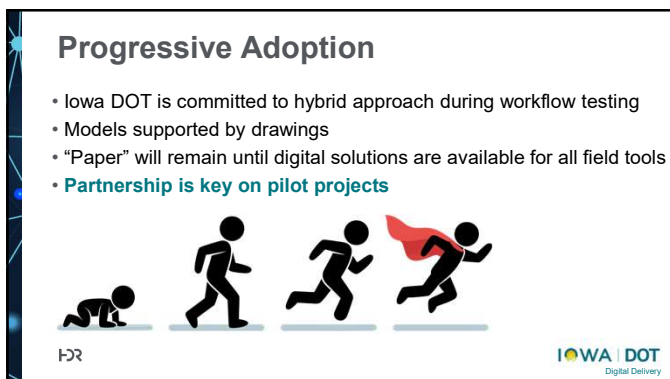
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Iowa DOT Bridge BIM Vision Statement

New and replacement bridge and culvert asset information and data is seamlessly transferred between the digital systems that internal and external customers use for all aspects of the asset's design to operations life cycle.

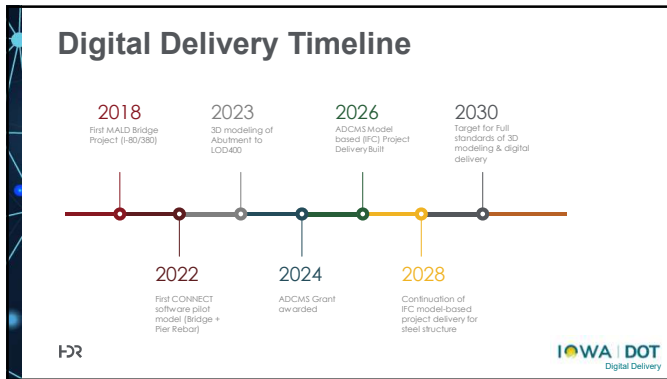
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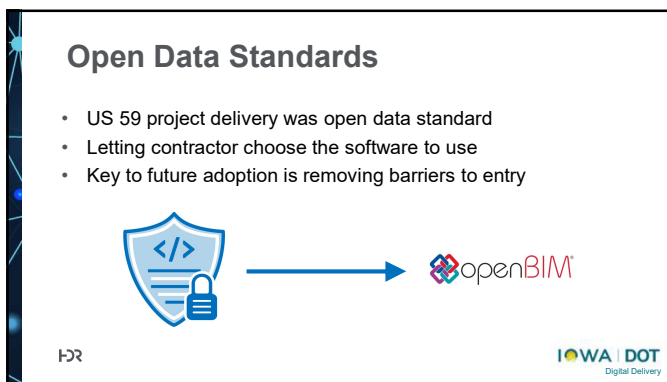


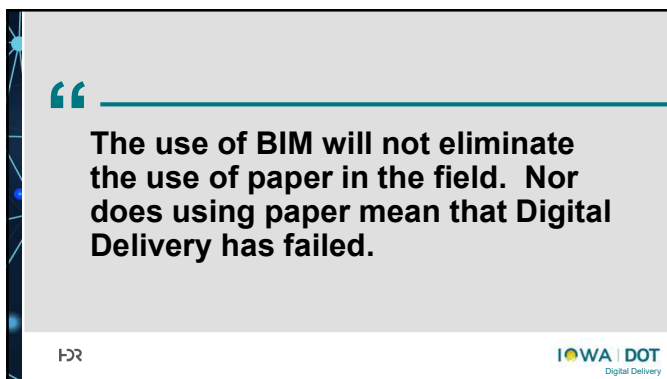
Progressive Adoption

- Iowa DOT is committed to hybrid approach during workflow testing
- Models supported by drawings
- "Paper" will remain until digital solutions are available for all field tools
- **Partnership is key on pilot projects**

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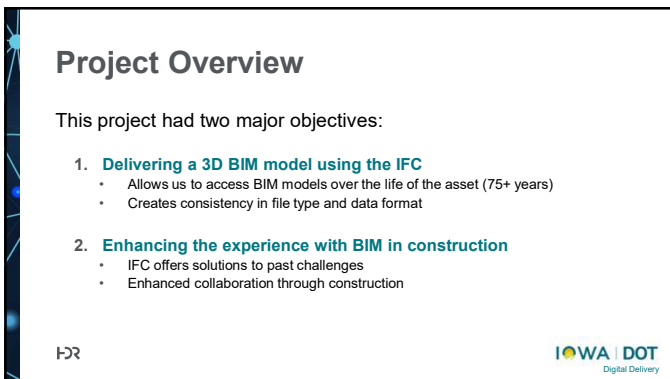












Delivering BIM Models in IFC

The process:

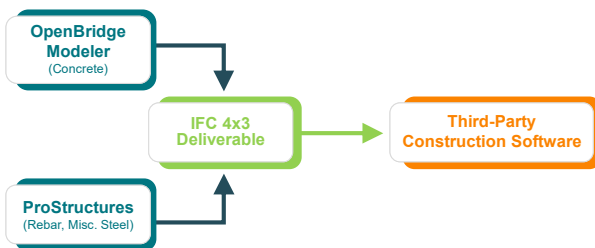
Evaluate IFC implementation in Bentley products

- OpenBridge Modeler
- ProStructures
- Infrastructure Cloud

H2R

[illegible]

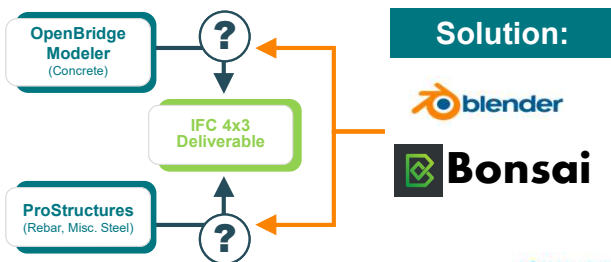
Delivering BIM Models in IFC



H2R

[illegible]

Delivering BIM Models in IFC



H2R

[illegible]

Delivering BIM models in IFC

Collaboration Efforts

- **National Transportation Pooled Fund, TPF-5(523)**
 - Contractors and Fabricators work across state lines.
 - Establishes national standards for different exchanges
 - Design-to-construction
 - Fabrication detail (i.e. shop drawings)
- PennDOT Pilots
 - Similar objectives related to IFC
- Software Vendors

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Enhancing BIM in Construction

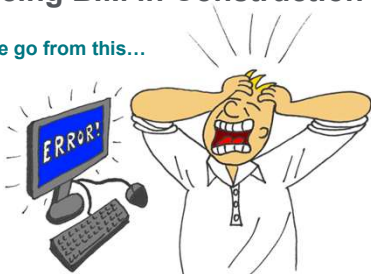
- Broader adoption of BIM requires meeting the needs of stakeholders along the way.
 - Inspectors, contractors, fabricators, suppliers, etc.
- These stakeholders are rich in data that is valuable to long-term asset management
- Verifying BIM models work for them is in everyone's best interest

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Enhancing BIM in Construction

How do we go from this...

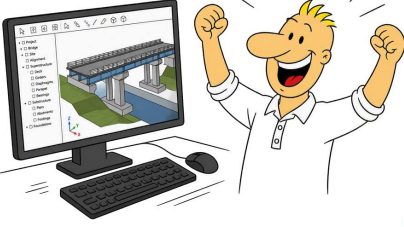


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Enhancing BIM in Construction

To this...



Enhancing BIM in Construction

Coordination with AGC

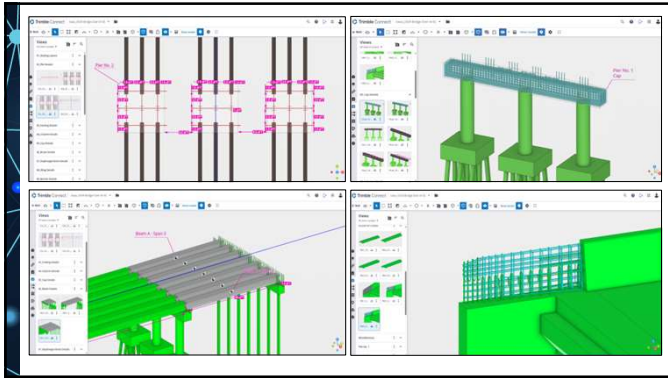
- Discuss challenges from past pilot projects
- Gathered feedback on model and viewer capabilities
- Determined the best approach for model use in construction
 - *Moved from Model as the Legal Document to For Information Only*
 - *Financial incentives to use and provide feedback on model use*

Support in Construction

Model Use in Construction

- Pre-bid meeting
- Model Review Sessions
- Weekly Construction Meetings
- On-site software vendor support







Model Use in Construction

Interacting with the real world through

- Augmented reality
- Reality captures (i.e. point clouds, LIDAR scans)

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Model Use in Construction



- Trimble Site Vision provided Augmented Reality to inspectors and contractors
- Good for visualization and inspection
- Requires improvements for use in construction

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Model Use in Construction



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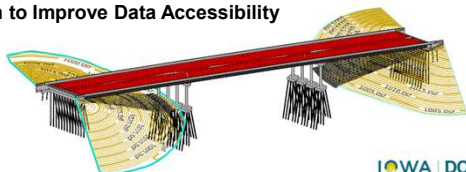
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Look Ahead

US 30 Pilot Projects for Open Data Standards

- Bridge – New three-span steel plate girder
- Roadway – Grading package (alignment & terrain)

AI Integration to Improve Data Accessibility



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