

Welcome to the 2022 INDOT Bridge Design Conference

Stephanie Wagner

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Intentions

- Concept by the ASCE-INDOT Structures Committee
 - Completely “Volunteer”- Run Event
- Goals
 - Share Applicable Information
 - Policy Updates
 - Research
 - Practical Design Topics
 - Other Resources
 - Attendees Leave with Tangible Take-Aways
- **HUGE THANK YOU!!**
 - All the Presenters
 - Executive Producer Jim Lesh and the production team
 - Survey Responders

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Hybrid Format: How-To

Everyone

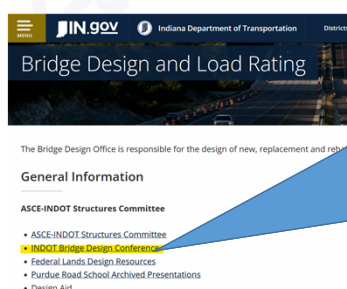
- Presentations Posted to Web
- CEU Certificates to be Emailed
- PLEASE Complete Survey!

In-Person

- Paper Sign-In Sheets (AM & PM)
- Hold Questions until the End

Virtual

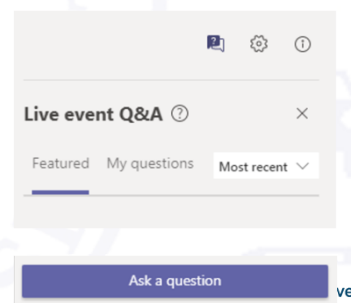
- Credit for Time in TEAMS Event
- Use Q&A Box (sooner the better)



General Information

ASCE-INDOT Structures Committee

- ASCE-INDOT Structures Committee
- **INDOT Bridge Design Conference**
- Federal Lands Design Resources
- Purdue Road School Archived Presentations
- Design Aid



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Agenda

- 8:15am—8:45 am: General (Stephanie Wagner)
- 8:45am—10:10 Policy (Subhi Bazlamit)
INDOT Policy, Design Manual and Procedure Update
Historic Bridge Memo (Mary Kennedy)
Scour Memo and HRA (Mark Bailey)
- 10:10am—10:30am: Break
- 10:30am—11:00am: Preventive Maintenance Refresher (Corey Pressler)
- 11:00am—11:50am: IHCP and other MOT Considerations (Jim Poturalski)
- 11:45am—1:00pm: Lunch (Lunch is on your own)
- 1:00pm—1:50pm: Fiber Wrap for Beam End Repair (Chris Williams)
- 1:50pm—2:45pm: US 136 over Wabash River: Load Rating, Analysis, and Inspection (Jennifer Hart, Amy Huebschman, Doug Crampton)
- 2:45pm—3:00pm: Break
- 3:00pm—3:30pm: Coping Replacement Design Example (Mike McCool)
- 3:30pm—4:30pm: INDOT's 1st Precast Elements Bridge (Angela Pearl)



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INDOT Update

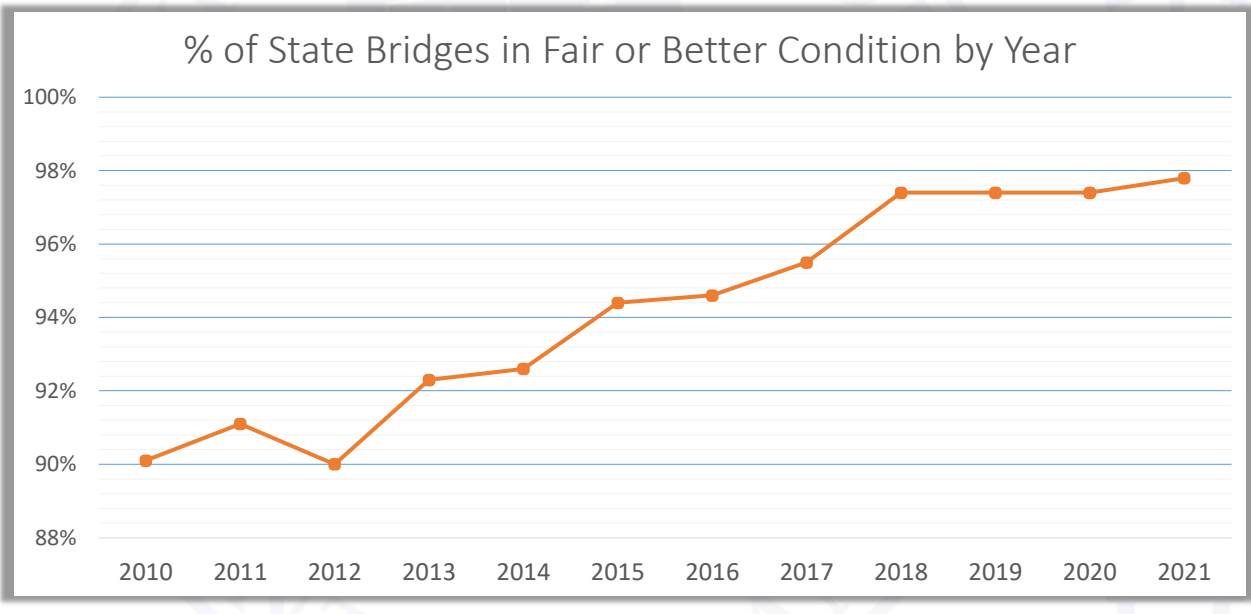
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INDOT Update

- Action
 - 20-Year Plan
 - Annual Call for Projects
 - Design Policy Updates
 - Overweight Permit Review
- Knowledge
 - In-service Performance
 - Deterioration Models
 - Capacity of Each Structure
- Data
 - Complete Bridge Files
 - Existing Plans and Details
 - History of Maintenance Work
 - Accurate Load Rating Models

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Making an Impact



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Good Data in Practice: ERMS Meta Data

- Ensure every bridge has a separate des number
- Include each des and structure number in file properties

The screenshot displays the ERMS software interface with two main sections: 'Required Properties' (outlined in red) and 'Optional Properties' (outlined in blue). Three callout boxes on the right side highlight specific fields:

- DES Number :** A callout box pointing to the 'DES Number' field in the 'Required Properties' section.
- Structure Number :** A callout box pointing to the 'Structure Number' field in the 'Required Properties' section.
- NBI Number :** A callout box pointing to the 'NBI Number' field in the 'Optional Properties' section.

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Good Data in Practice: Plan Details

- Provide Appropriate Details in Plans
 - Joint Replacement Details
 - Show Prestressing Strand Area
 - Updated Sample Plans

Your design plans live on for the entire life of that structure!

④ DESIGN DATA


Prestressing steel shall be 0.5" uncoated, low relaxation, seven-wire strand, 270 ks (Area – 0.167 sq. in.)
 Initial pull per strand, 33.82 kips.
 Concrete strength at release, f'_{ci} = 6,000 psi.
 Concrete strength at 28 days, f'_c = 7,000 psi.
 Reinforcing steel shall be Grade 60 ksi minimum yield strength.

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Good Data in Practice: Communication

Notify INDOT Bridge Engineering:

- Changes after STG3
- Structural Changes in the Field
- Precast Structure Shop Drawings  LoadRating@indot.IN.gov
 - Per Shop Drawing and Falsework Review Procedures document

Notes for General Correspondence:

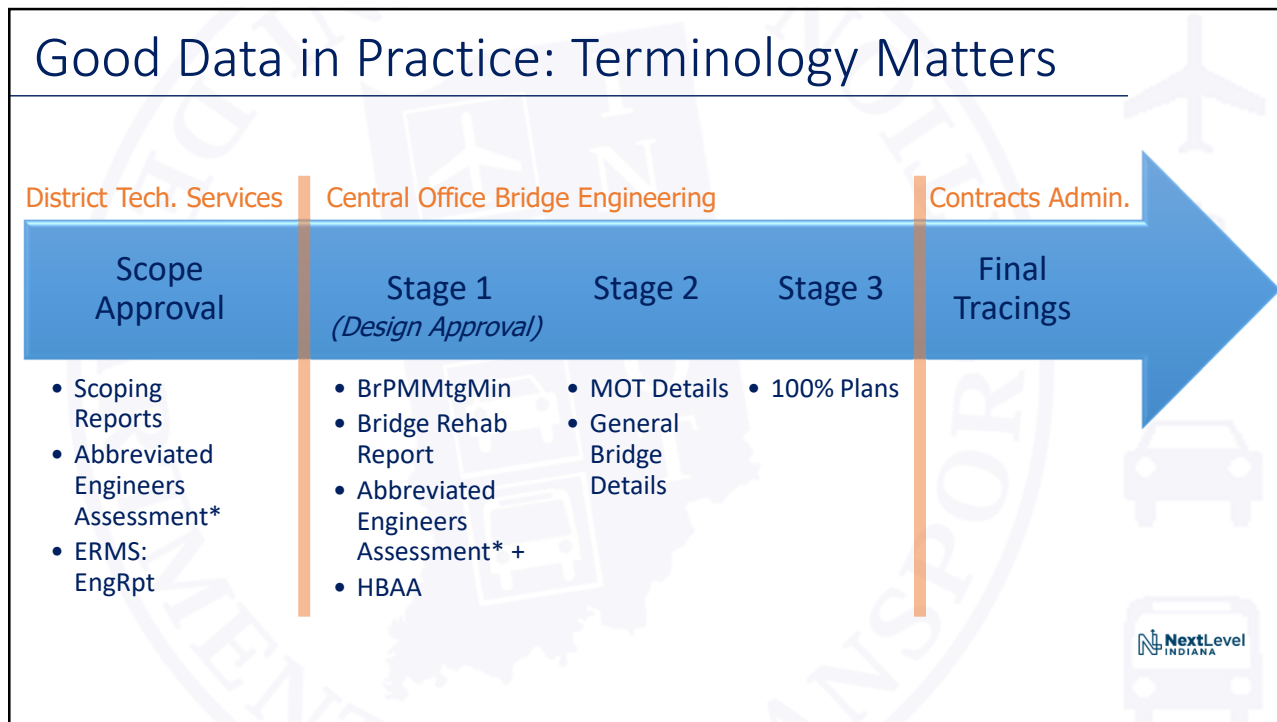
- Overshare on Field Check Invites
- Unique Challenges (i.e. Historic)
- Complex Issues
- Use Major Project Names



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Bipartisan Infrastructure Law (BIL) Update

- Additional funding starting in FY 22-26 for Capital Program
 - Bridge Formula: Allocation by Bridge Condition
- Funding for Local Program, Multi-Modal and others too
- New Grant Opportunities

INDOT well positioned thanks to HEA1002 (2017)

Minimize Disruption Schedule Disruption
Leverage Existing Program
Stay tuned!

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General Questions

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LoadRating@indot.IN.gov

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