Wisconsin DOT – State Report

SHPR2 Solutions: Innovative Bridge Designs for Rapid Renewal

James Luebke P.E., Structural Development Engineer

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WisDOT ABC - Program

• Support and Vision

• Past & Current Projects

• Future Projects

• IH-39 Optional Precast Piers
WisDOT ABC - Team

• The Team:
  – Guidance - State Trans. Innovation Council (STIC)
  – Department Experts (Bridge, Geotech, and Contract Admin.)
  – FHWA Resources and Support
  – Consultant, Contractor, and Fabricator Support

• The Objective:
  – Get out in front of projects and develop the Policy, Guidance, Standards, and Provisions to implement ABC tools and solutions
    ......*To Meet Project Needs*
• Highways for Life is aimed at improving Safety, Reducing Congestion, and Improving Quality

• Federal Highway Administration’s (FHWA) Every Day Counts (EDC) initiative “aimed at shortening project delivery, enhancing the safety of our roadways, and protecting the environment.”
Process of Development

• Research - Development of Technologies

• Custom - Project/Site Specific Details and Specifications

• Standardize - Program & Corridor Approach

• Institutionalize - System-wide Policy & Applications

• Learn, Document, and Update as Needed
WisDOT Perspective

- Lessons Learned

- Plans and Specifications
- WisDOT BM Chapter 7-ABC
- WisDOT Experience
- Next ABC - Bridge Project
- Project Debriefing
Research Initiatives for ABC

- FHWA IBRC (Innovative Bridge Research and Construction)
- FHWA IBRD (Innovative Bridge Research and Deployment)
- WHRP (Wisconsin Highway Research Program)
WisDOT ABC - 2005

- Completed - Precast full-depth deck panels

IH–39/90 (B-13-161) FHWA - IBRC
• Completed - Prefabricated abutments

USH 63 (B-55-217) FHWA - IBRC
WisDOT ABC - 2009

- Completed - Prefabricated pier caps and abutments

STH 25 (B-6-157/158) FHWA - IBRC
WisDOT ABC - 2011

- Completed - Superstructure lateral slide

STH 29 (B-5-648/649)
WisDOT ABC - 2012

- Completed - GRS-IBS

STH 40 (B-9-380) FHWA - IBRD
WisDOT ABC - 2013

- Completed - Inverted Tee
WisDOT ABC - 2013

- Completed - Precast Piers and SPMT Move
• Precast Piers Projects (2014 - 2016)
  o (1) Siggelkow Road Bridge - 2014
  o (3) SHRP2 Project - 2015
  o (1) SHRP2 Project - 2016

• Optional Precast Piers (2014 - ?)
  o Implementation

• Statewide Implementation (under development)
  o Precast Piers
  o GRS-IBS
    o Prestressed Box Girders (next generation)
    o Alternative Superstructures
• Programmed - (2) GRS-IBS

CTH S/KW (B-14-216/217) FHWA – AID
WisDOT ABC - Resources

- Bridge Manual – Chapter 7 (ABC)
  - GRS-IBS, Precast Piers, SPMT
  - Decision Making Matrix
- Standard Details – Chapter 7 (ABC)
  - (2) GRS – IBS
  - (4) Precast Piers
- Special Provisions
  - GRS-IBS
  - SPMT
  - Grouted Couplers

WisDOT ABC - State Report

Questions?
William.Oliva@dot.wi.gov
David.Kiekbusch@dot.wi.gov
James.Luebke@dot.wi.gov