Working with the 3R’s of Historic Bridges-
Restore, Rehab, Replace

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MDOT
Michigan Department of Transportation
Three “Rs”

- General Maintenance may not be enough
- Restoration
  - Repairs
  - Reconstruction (limited)
- Rehabilitation
  - Repairs
  - Reconstruction
- Replacement
Historic Significance

- Engineering
- Architecture
- Associations
  - Broad Trends in American History
  - Significant person(s)
Stakeholders

- FHWA
- MDOT
- SHPO
- MHPN
- Host Community
- ACHP
Replacement – M-32BS

- Main Rte into Hillman
- Functionally Obsolete
- Structurally Deficient
- Long Detour
- Historic
Hillman – temporary bridge
Replacement – M-32BS

- 2 12’ lanes
- 2 8’ sidewalks
- Shoulders
- Addresses sight-line problems
- Aesthetics selected by community
Hillman Bridge - new
Replacement – Tienken Rd Bridge

- Blt 1940
- 2 lanes
- Rural area
- Stoney Creek Village
Tienken Road Bridge

- Railing replaced
- Functionally obsolete
- Structurally Deficient
Replacement – Tienken Rd

- Heavy traffic
- Suburban – not rural
Issues:

- Historic District
- Controversy
  - Site specific
  - Corridor

[Image of a historic marker with the text: "STONEY CREEK VILLAGE. Leman Taylor and his family became Stoney Creek's first settlers in 1823. The next year a sawmill and a gristmill, along with a distillery and blacksmith shop were built. Next came a hotel and a wooden mill. Joshua Van Hoosen's family settled here in 1836, when he was six years old. In 1850, after seeking wealth in California's gold fields, Joshua returned to Stoney Creek, purchased the family farm and married Sarah Taylor, granddaughter of Leman. One of their daughters, Bertha Van Hoosen 1865-1952, became an internationally known surgeon. Their granddaughter, Sarah Van Hoosen Jones 1897-1972, earned a doctorate in genetics and operated the family estate as a model dairy farm from 1925 until 1952, when she decided about 500 acres to Michigan State University.]
Replacement – Tienken Rd.

- Community outreach
- Work w/ MDOT and SHPO
- CSS principles
Rehabilitation – Cut River Bridge

- Deck Replacement
- Limited Steel Repairs
- Traffic Barrier Upgrade
- ESS
Restoration – Cut River Bridge

- Mortar Deterioration/loss
- Stone Deterioration
- Graffiti
- Environmental Staining
- Possible subsurface issues
Restoration – Cut River Bridge

- SHPO Consultation
- FHWA Consultation
- Secretary of the Interior Standards
- Proprietary Products
- Proprietary Process
Restore/Rehab – US-31
Mitchell Street over Bear Creek
Restore/Rehab – US-31
Mitchell Street over Bear Creek

- Historic Bridge
- High-traffic route
- Park below
- Waterway below
- Detour challenges
conditions
conditions
Restore/Rehab – US-31
Mitchell Street over Bear Creek

- Replace railing
- Replace Deck and sidewalks
- Replace or repair fascia
- Remove Seal Coat
- Patch & Repair
Restore/Rehab – US-31
Mitchell Street over Bear Creek

- AASHTO Standards
- FHWA approval
- SHPO approval
- Local buy-in
- Local involvement
TE Program – MAP 21

- TE Program combined with Safe Routes to School, Recreational Trails programs
- Rolled into CMAQ Program (with Wetland Mitigation, and HOV programs)
- Funding for the 3 programs limited @ $833 million ($313 M less than 2010)
- States may opt out of TE, use funds for other transportation projects.
Questions?

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