

ALLEN COUNTY'S CREDIT BRIDGE EXPERIENCE

RONALD J. MEYER II, P.E., P.S.

ZURMEHLY ROAD BRIDGE

- Over the Little Ottawa River
 - Steel truss, reinforced concrete deck with asphalt overlay
 - 65' long and 20' wide
 - Built in 1950
 - Current ADT = 2,300
 - Structurally deficient
 - Posted load limit since March of 2012
 - Less than a quarter mile from a middle school and high school
-

PREVIOUS STRUCTURE



PREVIOUS STRUCTURE



PREVIOUS STRUCTURE



PREVIOUS STRUCTURE



PREVIOUS STRUCTURE



PREVIOUS STRUCTURE



NEW STRUCTURE

- Surveyed in-house
 - Designed by Kohli & Kaliher Associates, Inc.
 - Single-span, non-composite prestressed reinforced concrete box beams
 - 78'-0" c/c bearings
 - 32'-0" f/f guardrail
 - HL-93 loading
 - Asphalt wearing surface
 - Reinforced Concrete Capped Pile Abutments
-

NEW STRUCTURE

- Length of Project = 400 feet
 - Guardrail
 - Twin Steel Tube on the bridge
 - Bridge Terminal Assemblies (Type 1), MGS with Long Posts, Type A & Type T Anchor Assemblies
 - All posts are steel
 - No additional right-of-way required
 - Earth Disturbing Activity = less than 1 acre
 - No design exceptions
 - Engineer's Estimate = \$589,348.15
-

FUNDING

- There was no way we could fund this project with local funds
 - We pursued OPWC funds
 - In 2014, we applied for an 80% grant with a 20% local match
 - In 2015, we applied for a 53% grant and 20-year, no interest loan
 - Once we were approved for funding, we began the Credit Bridge process
-

CREDIT BRIDGE TIMELINE

- 2/22/16: Maumee Watershed Conservancy District approved the project
 - 2/28/16: Requested field review with ODOT District 1
 - 3/14/16: Lima-Allen County Regional Planning Commission issued a Floodplain Development Permit
 - 3/16/16: Field Review with ODOT District 1
 - No historical/archeological concerns
 - No wetlands
 - No wild/scenic rivers
-

CREDIT BRIDGE TIMELINE

- 3/16/16: Field Review with ODOT District 1
 - A Nationwide Permit must be received from the Army Corps prior to any in-stream work
 - ODOT was concerned that the stream may be suitable for mussels
 - 4/4/17: Pre-Construction Notification submitted to the Army Corps
 - 6/2/16: Army Corps approves the Nationwide Permit
 - No mussel survey was required
-

CREDIT BRIDGE TIMELINE

- 7/1/16: Bid Opening
 - 3 Bidders: R.G. Zachrich Construction, Inc. was the low bidder at \$511,305.59
 - 7/11/16: ODOT approved the project for Credit Bridge
 - 8/12/16: Roadway was closed
 - 10/28/16: Roadway was reopened
 - 12/1/16: Credit Bridge Program Project and Cost Certification was submitted to ODOT
 - 12/12/16: ODOT final inspection
 - 3/16/17: Federal Highway Administration approval
-

COMPLETED PROJECT



COMPLETED PROJECT



COMPLETED PROJECT

- Final Construction Cost = \$500,491.46
 - On time and under budget
 - Credit Bridge = \$400,393.17
-

WHY CREDIT BRIDGE?

- We used Credit Bridge Funds on the Central Avenue Bridge
 - Local-Let LPA Project
 - Engineer's Estimate = \$757,691.93
 - We had budgeted 20%
 - \$151,538.39
 - We only had to pay 5%
 - \$37,884.60
 - We also used Credit Bridge Funds for the inspection/project management contract and only had to pay 5% (\$2,400)
 - We were able to save \$110,000 on just one project
-

WHY CREDIT BRIDGE?



WHY CREDIT BRIDGE?

- We have two more federal projects programmed
 - Grubb Road in FY 2019
 - Estimate = \$290,000
 - 20% = \$58,000
 - 5% = \$14,500
 - Savings = \$43,500
 - Fisher Road in FY 2022
 - Estimate = \$1,055,000
 - 20% = \$211,000
 - 5% = \$52,750
 - Savings = \$158,250
- We were able to fund 3 projects and still have Credit Bridge Funds available
 - All from 1 bridge we were already going to replace

SUMMARY

- Overall, it was a fairly smooth process
 - Being a contract job, cost certification was very simple
 - We will definitely pursue more Credit Bridge projects in the future
 - Both in-house and consultant designed
 - Both contractor and force account projects
 - Another tool to “do more with less”
-

LESSONS LEARNED

- Focus on relatively simple projects
 - Minimal environmental concerns
 - Little or no right-of-way needed
 - Start the process as early as possible
 - Not only on projects to earn Credit Bridge Funds, but also on projects that you want to use Credit Bridge Funds on
 - Make sure the amount of credit is worth the extra time, effort and money
-