

## PROJECT OVERVIEW REPORT

1. UTC Identifying Number  
69A3551847102
2. Center Identifying Number  
CAIT-UTC-REG28
3. Project Title  
Cost-effective Bridge Decks for Improved Durability and Extended Service Life
4. Principal Investigator & Contact Information  
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5. Rutgers/CAIT Project Manager  
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6. Customer Principal  
Ronald D. Medlock, Chair, Main Committee  
American Institute of Steel Construction, AASHTO/NSBA Collaboration  
1915 Old Philadelphia Pike  
Lancaster, PA 17602
7. Project Description  
The primary goal of this proposal is to develop cost-effective standard open rib SOBD demonstrating similar performance as CRD. The objectives of this research are:
  - (1) to promote increased implementation of SOBD for short and medium span highway bridges for improving durability, extending service life and safe operation of US bridge infrastructure; and
  - (2) to enable domestic bridge design and fabrication industry to be productive and competitive.
8. Implementation of Research Outcomes (or why not implemented)  
The new design specifications for open rib SOBD to be developed in this study are expected to be incorporated into the AASHTO Bridge Design Specifications. Additional companion design guide for implementation of small and medium span bridges will be developed as AASHTO/NSBA Collaboration document. The research findings and standardization could be adopted by steel bridge fabricators for streamlining production, economizing fabrication, and competitive advantage.

The research could lead to the development of a catalogue of standard open rib SOBD that would further promote implementation of these decks for short and medium span highway bridges.

9. Impacts/Benefits of Implementation (actual, not anticipated)  
To Be Determined

10. Dates and Budget

Start date: 12/1/2019

End date: 11/30/2020

UTC (CAIT) Dollars: \$400,000

Cost Sharing: \$0

Total Dollars: \$400,000

11. Keywords

orthotropic, open rib, steel bridge, standard bridge deck

12. Web Links (Reports and Project Website)

<https://cait.rutgers.edu/research/cost-effective-bridge-decks-for-improved-durability-and-extended-service-life/>