RUTGERS
Center for Advanced Infrastructure and Transportation

PROJECT OVERVIEW REPORT

1. UTC Identifying Number
   69A3551847102

2. Center Identifying Number
   CAIT-UTC-REG76

3. Project Title
   Advanced Testing and Modeling of Dredged Sediments for Beneficial Use

4. Principal Investigator & Contact Information
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6. Customer Principal
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7. Project Description
   The primary goal of this proposal is to develop modeling approaches for the beneficial use of raw and stabilized sediments in engineering applications. First, a robust material characterization and strength laboratory testing program will be performed on specimens of raw and stabilized dredged sediments. These results will then serve as reference data for developing different approaches for modeling the sediments using a variety of methodologies ranging from analytical solutions to nonlinear finite difference analyses. Approaches will be developed for a range of potential beneficial uses that require varying levels of engineering performance and modeling breadth. These modeling approaches will be used to develop guidance for modeling sediments for different beneficial uses (i.e., non-structural fill versus structural fill) in practice.

8. Implementation of Research Outcomes (or why not implemented)
   The intended outcome of the project is to provide guidance and methodology for modeling sediments in engineering applications using approaches tailored to different beneficial uses.

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

10. Dates and Budget
    Start date: 1/1/2023
    End date: 3/31/2024
    UTC (CAIT) Dollars: $80,000
    Cost Sharing: $0
    Total Dollars: $80,000

11. Keywords
    sediment behavior, sediment modeling, geotechnical characterization

12. Web Links (Reports and Project Website)
    https://cait.rutgers.edu/research/advanced-testing-and-modeling-of-dredged-sediments-for-beneficial-use/