

Project Title: NJDOT Bridge Resource Program-3

(BRP-3) Posting No.: 2024-07

Date of RFP Announcement: 12/23/24

Closing Date: 02/03/25

NOTE: Due to P.L. 2019, c. 196, the New Jersey Department of Transportation cannot award research grants to PRIVATE and/or OUT OF STATE institutes of higher education.

Proposals must be prepared in accordance with NJDOT's *Supplemental and Proposals guidelines*. Please visit https://www.state.nj.us/transportation/business/research/guidelines.shtm for the most current version.

All proposals must also have a corresponding online PreAward Risk Assessment form completed and submitted by the Principal Investigator (PIs) prior to the RFP closing date and time. This online form can be found at:

https://www.state.nj.us/transportation/business/research/risk_assessment_forms.shtm

NJDOT invites all qualified Principal Investigators (PIs) to apply for one or more or all Bridge Resource Program RFPs #1, #2, #3 from NJ State Institutes of Higher Educations. Our goal is to maximize the number of proposals submitted by each institution for these RPFs. Proposal selection will be based on the quality of the PI's proposal over the submitting institution.

1 - PROBLEM STATEMENT AND OBJECTIVES

1.1 Problem Statement

The primary mission of the Bridge Resource Program-3 (BRP)-3 is to provide ongoing engineering evaluation and research support to NJDOT's Bureau of Structural Engineering Services within the Division of Bridge Engineering and Infrastructure Management (BEIM). Engineering support provided through BRP will assist in developing new and updating existing Bridge Design policy and standards based on new technologies, guidelines, and current industry practice.

1.2 Objectives

The NJDOT is attempting to develop its Bridge Design policy and standards per the latest AASHTO specifications, design manuals, new guidelines/technologies, and current industry practices. The NJDOT being a Public Service Agency has core competence in design, construction and maintenance activities. The department, therefore, needs assistance with research and investigation of innovative technologies to accomplish the above objectives through academic expertise and research capabilities unique to Institutes of higher education/PIs.



The foundation for a successful Bridge Resource Program-3 is to ensure that its core functional areas are aligned with NJDOT's needs, and are flexible, responsive and can efficiently enhance the overall performance of State assets. As such the BRP plan will be focused on the following core work areas:

1) Innovative Material and Technology

- a. Review, test and pilot study of new products and technologies in the areas of structural engineering, bridge design and bridge preservation to enhance performance and constructability.
- b. Assist in the development of related design guidance, construction specifications and quality assurance test procedures to aid in the successful implementation of new methods and technologies.
- c. Develop and evaluate innovative materials. Assist in implementing innovative materials in alignment with industry, AASHTO, FHWA programs.

2) On-Call Services

- a. Rapidly respond to NJDOT's needs for advanced bridge engineering tools and services to address ongoing bridge design, construction field issues, or maintenance issues. Perform In-depth structural inspection and evaluation using innovative testing technology to investigate structural emergencies due to unforeseen and/or special events for individual structures as well as any other structures within the corridor and provide recommendations.
 - (The Principal Investigator (PI) will respond to the request within the time allowed by NJDOT develop an appropriate work plan to supply the needed support and respond to NJDOT's request).
- b. Assist in Investigating the applicability of new AASHTO, TRB/NCHRP and other industry guidelines to NJDOT Standards and Specifications specifically; recommend changes to NJDOT standards, specifications, and existing policies; develop guidelines as required.
- Assist in resolving practical issues in a quick turn-around manner encountered during design, construction, implementation and evaluation for NJDOT bridge and highway structures and/or develop recommendations and guidelines

3) <u>Technology Transfer</u>

a. Provide technology transfer and training to NJDOT's Division Bridge Engineering & Infrastructure Management staff on topics pertaining to but not limited to new products,



- policy guidelines and research products for Bridge design, construction, maintenance and preservation.
- b. Provide Ethics course for renewal of Professional Engineer license to NJDOT & FHWA staff annually.

4) Bridge Design Manual, Standards & Policy Update

- Pls should team up with consultants with expertise in specific fields of design and construction for the following tasks:
 - Assist in updating and maintaining NJDOT's Design Manual for Bridges & Structures and the structural portion of the Standard Specifications for Road & Bridge Construction.
 - Assist in updating NJDOT Standard Bridge Construction Details, Standard Drawing Plates and Guide Plates in accordance with the latest design and construction standards.
 - c. Conduct Research in support of Bridge Engineering and Infrastructure Management policy decisions. Assist in gathering and presenting information to help guide and justify NJDOT's bridge policy through data collection, surveys, and literature reviews.

1.3 Special Instructions

<u>Progress Meetings</u>: Bureau of Research, Innovation and Information Transfer (BRIIT) shall be included in Bridge Resource Program-3 progress and programmatic review meetings.

<u>Annual Reporting</u>: Bridge Resource Program-3 shall submit an annual 10–15-page summary report of complete and ongoing activities to BRIIT. A sample template specific to all NJDOT resource centers/support programs will be provided.

1.3.2 Pilot, Testing, and Demo Projects

BRIIT staff shall serve as an extended branch of Bridge Resource Program-3 staff by providing funding and/or management of any identified pilot/testing projects. BRIIT can assist in applying for and managing special grants that would be beneficial to Bridge Resource Program-3 efforts

1.3.3 Build on BRIIT's Technology Transfer Program

- 1. Bridge Resource Program-3 & BRIIT shall work together to identify topics and content.
- BRIIT Tech Transfer program, including but not limited
 - A. Articles
 - B. Promotional Videos
 - C. Tech Talks



3. Cross posting between NJDOT Tech Transfer and Bridge Resource Program-3 webpage

1.4 Type of Contract

It is proposed that if the Issuing Office enters into a contract because of this Request for Proposal (RFP), it will be a **Cost Reimbursement, Deliverable-Based** contract containing the Standard Contract Terms and Conditions.

2 - BUDGET and CONTRACT TIME

The **TOTAL** project budget shall not exceed \$1,800,000 US Dollars (\$900,000 per year) US Dollars. The overhead rate for this RFP proposal shall not exceed 15%.

The PI must provide the anticipated study duration based on the proposed tasks. Consideration should be given to potential impediments so that adjustments are incorporated into the schedule minimizing the need for time extensions. Contract time shall include sufficient time for the procurement of subcontractors, as well as no less than three months for Final Report review and acceptance. Please note that new task orders with valid justification will be permitted only a one-time extension under 2 CFR 200.

A 24-month total project duration is preferred.

Please provide a Gantt Chart schedule, by month number (e.g., 1-24), showing tasks start/end, and deliverables. List corresponding deliverables below the chart.

3 - Oral Presentations

Oral presentations may be requested as part of this RFP. If required, you will be notified by the Structure Engineering Services to schedule your oral presentation. They may be conducted online or at the NJDOT headquarters in Trenton, NJ, and will be limited to a maximum of one hour, including time for questions and answers.

4 - Deadline

Proposals (no hard copies required) are due at the Structure Engineering Services no later than **4:00 p.m. on February 03, 2025.** Electronic proposal documents (preferred pdf) shall be emailed to hemant.padalia@dot.nj.gov with the subject: **BRP-3-RFP-2025-26 University – PI's name**.

Approximate Start Date: The official start date is the date that the Structure Engineering Services obtains a signature from the Assistant Commissioner.

5 - CONTACTS

Interested parties shall send all questions related to this RFP to the Structure Engineering Services by sending an e-mail hemant.padalia@dot.nj.gov. Questions on this topic **shall not** be



directed to any Project Manager, Customer, or any other NJDOT personnel. All questions must be received **on or before January 6, 2025, in order to be answered.**

PROPOSAL DELIVERY INSTRUCTIONS:

Electronic proposal and budget documents (preferred pdf) shall be emailed to hemant.padalia@dot.nj.gov with the subject: BRP-3-RFP-2025-26 University – Pl's name. A confirmation of receipt will be sent via email.