



**New Jersey Department of Transportation
Bureau of Research
RESEARCH PROJECT
Request for Proposal
2022 – 2023 SPR Program**

Project Title: NJDOT Corrosion Study on Steel Structural Members
Posting No.: 2022-05
Date of RFP Announcement: 08/25/2022
Closing Date: 10/13/2022

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 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

1 - RESEARCH PROBLEM STATEMENT AND OBJECTIVES

1.1 Problem Statement

NJDOT is seeking research on comprehensive corrosion study for its steel infrastructure (other than embedded steel in concrete), which is exposed to various weather and traffic conditions. Corrosion which acts in several different forms results in section loss, which reduces capacity of the affected member. A research study is needed to enhance the corrosion protection that would allow engineers to add design considerations into future designs.

1.2 Research Objectives

The study must have minimum of three phases including

Phase#1 literature study pertaining to the NJ State steel infrastructure condition regarding corrosion, maintenance practices and new tools and technologies.

Phase#2: field and lab studies including coupon tests and other destructive tests which can be implemented to determine the member's strength. Samples should be taken from structure near or at the end of its useful service life and compare it's as-inspected measurements to its as-built measurements. Also given New Jersey's diverse geographic features, samples should be taken from marine, urban and rural environments. Additionally, samples should be taken from structures owned by not only the State, but also the Counties, Municipalities, and other agencies.

Phase#3: Data Analysis: The collected data in Phase#2 can be used to develop statistical models, specifications update, and a corrosion prediction equation can be developed which can be useful in designing structural steel members by NJDOT to maintain a desired service life.



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1.3 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 **\$500,000 US Dollars**. Budgets will be evaluated separately, and only after a selection has been made as to which proposal is the most qualified based on technical merit.

The PI must provide the anticipated research 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 be advised that going forward, new task orders having permissible justification will be allowed no more than a one-time extension with the advent of 2 CFR 200.

A 30-36-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 online presentations may be requested as part of this RFP. If required, you will be notified by the Bureau of Research to schedule your oral presentation. They will be held at NJDOT headquarters in Trenton, NJ, attended by the Technical Advisory Panel (TAP), and be limited to no more than an hour, including time for questions and answers.

4 – Deadline

Proposals (no hard copies required) are due at the NJDOT Bureau of Research no later than **4:00 p.m. on October 13, 2022**. Electronic proposals (preferred pdf) shall be emailed to Research.Bureau@dot.nj.gov with the subject: *RFP-YYYY-XX University – PI's name*.

Approximate Start Date: 01/05/2023. The official start date is the date that the Bureau of Research obtains a signature from the Assistant Commissioner.

5 – CONTACTS

Interested parties shall send all questions related to this RFP to the Research Bureau Manager by sending an e-mail to Amanda.Gendek@dot.nj.gov or by phone (609-963-2242). Questions on this topic **shall not** be directed to any Research Project Manager, Research Customer, or any other NJDOT person. All questions must be received **on or before 09/12/2022 in order to be answered**.



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PROPOSAL DELIVERY INSTRUCTIONS:

Electronic proposal documents (preferred pdf) shall be emailed to Research.Bureau@dot.nj.gov with the subject: *RFP-YYYY-XX University – PI's name*.
A confirmation of receipt will be sent via email.