



University Transportation Research Center
RFP Cover Sheet

Title: Innovative Techniques and Materials
Proposal Number: 2018-06
Sponsor: NJDOT
Date Issued: August 3, 2018
Pre-Proposal Meeting: On Request by August 29
RFP Due at NJDOT: September 12, 2018 4:00 PM
RFP Closing Date: September 12, 2018

If you plan to apply:
(research.bureau@dot.nj.gov, 609-530-5637) with any questions.

If you plan to submit a proposal through UTRC, please notify us by email at peickemeyer@utrc2.org. Also please indicate whether you are open to teaming up with faculty at other universities on this project.

Proposal submission guidelines:
When you apply, insert the UTRC cover sheet. <http://www.utrc2.org/resources> .

Note that matching funds will not be made available from UTRC for this project.

Please visit the NJDOT Research Website for important information about this RFP

http://www.state.nj.us/transportation/refdata/research/research_procurement.shtm



**New Jersey Department of Transportation
Bureau of Research
RESEARCH PROJECT
Request for Proposal
2018-19 Program**

Project Title: Innovative Techniques and Materials for Preventing Concrete Shrinkage Cracking
Posting No.: 2018-06
Date of RFP Announcement: 8/3/2018
Closing Date: 9/12/2018

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

1 - RESEARCH PROBLEM STATEMENT AND OBJECTIVES

1.1 Problem Statement

Shrinkage cracking is a huge problem for concrete based transportation infrastructures including pavements and bridges. Current research shows that many new techniques and materials are available to potentially reduce these cracks in concrete. However, it is not clear how these newly developed techniques and materials will work in New Jersey's climates. The objective of this proposal call is to study such innovative techniques and materials for preventing drying shrinkage and plastic shrinkage, which can help to delay the corrosion in reinforced concretes and increase the durability.

1.2 Research Objectives

At minimum, the proposal shall include Phase1: identification and studying the suitable innovative techniques and materials for reducing concrete shrinkage based on New Jersey climatic conditions and the materials availability. This phase may include literature search and lab testing. Phase2: Develop guidelines and specifications for the identified new techniques and materials in Phase1 as directed by the NJDOT Technical Advisory Panel (TAP).

Note: Phase2 may begin after NJDOT Bureau of Research approval of Phase1 deliverables.

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 **\$300,000**. 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 one time extension with the advent of 2 CFR 200.



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A 30 month total project duration is preferred.

3 - Oral Presentations. Oral 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, and be limited to no more than an hour, including time for questions and answers.

4 – DEADLINE

Proposals (10 single-bound copies) are due at the NJDOT Bureau of Research no later than **4:00 p.m. on September 12, 2018**

Approximate Start Date: 12/03/2018. The official start date is the date that the Bureau of Research obtains a signature from the Assistant Commissioner. This date can be utilized for project schedule preparation in the proposal.

5 – CONTACTS

Interested parties shall send all questions related to this RFP to the Bureau Manager by sending an e-mail to Research.Bureau@dot.nj.gov or by phone (609-530-5966). 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 8/13/2018 in order to be answered.**

A pre-proposal meeting may be scheduled with interested parties upon the request of *more than one* Institution of Higher Education. **This must be requested on or before 8/29/2018.**



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PROPOSAL DELIVERY INSTRUCTIONS:

For private, paid messenger services such as Federal Express, DHL, UPS, etc., or for hand-carried deliveries:

RFP No.2018-06 PROPOSAL-NJDOT
New Jersey Department of Transportation
Bureau of Research
1035 Parkway Avenue
Trenton, New Jersey 08625-0600

For U.S. Postal Service mail:

New Jersey Department of Transportation
ATTN: Manager, Bureau of Research
P.O. Box 600
Trenton, New Jersey 08625-0600