



New England Transportation Consortium

NETC Advisory Committee Meeting Notes

DATE: Tuesday, September 24, 2019, 11:00am – noon ET

LOCATION: GoToMeeting - <https://global.gotomeeting.com/join/618530621>

Dial in: 872-240-3412: Access Code: 618-530-621

Chris Jolly, FHWA	Flavia Pereira, CT DOT
Matt Mann, UMass	Greg Rowangould, UVM
Dee Nash, NHDOT	Ann Scholz, NHDOT
Elke Ochs, VTrans	Kirsten Seeber, CTC & Associates
Lily Oliver, MassDOT	Maina Tran, CTC & Associates
Emily Parkany, VTrans	Nicholas Zavalas, MassDOT
Dale Peabody, MaineDOT	

1) Open Project Review (September 2019)

Project # and Title	PI, University <i>AC Liaison</i>	Update	End Date Budget
18-1: Development of MASH Computer Simulated Steel Bridge Rail & Transition Details	Chuck Plaxico, Malcom Ray, Roadsafe LLC D. Peabody	The TC met to review the preliminary draft final report. PI created proposal to add three subtasks, at TC request, to project. MA is the only state that hasn't responded. All other states approve. Email sent to DOT reps on 9/23/19 with proposal and justification.	6/1/20 \$199,936
18-2: Framework of Asphalt Balanced Mix Design for NE Agencies	Wala Mogawer, UMass Dartmouth A. Scholz	Task 3 is in progress. PI presented project update on 9/19/19. They are gathering a list of available testing equipment from each state.	6/30/20 \$127,499
18-3: Integration of Unmanned Aircraft Systems into State DOTs	Jon Gustafson, WSP E. Parkany	Task 1 is complete. A project status check-in meeting is set for 10/2/19.	3/31/2021 \$146,632
18-4: Quick Response: ICNet Workshop	Daniel, UNH A. Scholz	Seven Research Needs Statements were sent the TAC and NETC AC with feedback due 9/13/19. Greg Rowangould reviewed the problem statements. No other universities offered to review the statements.	10/14/19 \$30,000
19-1: Curved Integral Abutment Bridge Design	TBD E. Parkany	MaineDOT posted the RFP with a deadline of 9/25.	TBD \$150,000
19-2: Multi-Scale Multi-Season Land-Based Erosion Modeling and Monitoring for Infrastructure Management	TBD A. Scholz	MaineDOT posted the RFP with a deadline of 10/2. One question received.	TBD \$150,000
19-3: Experimental Validation of New Improved Load Rating Procedures for Deteriorated Steel Beam Ends	TBD N. Zavalas	TC membership is set. SOW review meeting is scheduled for 9/24/19.	TBD \$200,000

Discussion:

- 18-1 – Adding funds or time
 - ~ Current contract ends June 2020.
 - ~ The project has had monthly calls and is progressing well.
 - ~ The TC wants to add three extra tasks, which includes additional modeling to see if the proposed changes would make the bridge rails better. All rails will pass MASH now and no physical crash testing is needed. The TC members could take the project's modeling to their division FHWA offices and determine crashworthy based on it. The three extra tasks will put a bow on the project.
 - ~ Emily is fine with adding the extra tasks/funds if the TC is happy with how these get added to the final report.
 - ~ Ann – Motion to approve. Emily – 2nd. Yes – All. No opposition. Motion passes.
 - ~ **Action item:** PI to submit a proposal for the additional tasks to Dale and Kimbalie Lawrence.
- 18-2 – The TC wants to ensure the survey results the PI presented to the TC are implementable. The PI is gathering a list of asphalt testing equipment from each state to add to the report.
- 19-1 and 19-2 – ME will let the AC know if the responses to the posted RFPs aren't of sufficient quantity and/or quality. If ME receives only one response, NETC does not have to accept it and ME can extend the RFP deadline.
 - ~ **Action item:** Kimbalie Lawrence will send the AC reps for both projects the scoring meeting invitations.

2) ICNet Workshop Research Needs Statements and NETC's RNS template

- According to Jo Sias, MA was the only DOT that provided feedback on the RNSs.
- The ICNet TC used the NETC template for their RNSs. Ann is comfortable with the RNSs that ICNet provided.
- Greg Rowangould assessed the ICNet RNSs and provided ideas on the RNS template.
 - ~ Greg suggests that NETC needs to be more careful about research objectives and methodology. **Action item:** The AC members should review [Greg's memo](#) and determine if the NETC Research Problem Statement template needs to be revised. This will be discussed at the October meeting. Members can also send Kirsten ideas prior to the meeting. Current NETC [RPS template](#).
- **Action item:** AC members should go back to their ICNet Workshop TC members to determine if any of the RNSs are a priority. These can be submitted to NETC in the next Research Problem Statement solicitation in December. Also, ask if that person would want to be the TC chair.
- Lily – The two TC members from MA had a meeting and reviewed the RNSs. Some of the issues have been/are being addressed by NCHRP research projects and some overlap with MA efforts. Only two of the RNS add value to their current understanding and go beyond what is happening: Road Salt Usage and Coastal and Inland Impacts.
 - ~ The MA TC members feel that the coastal and inland impacts one has too large a scope for the given budget and needs to either be cut back or sent to NCHRP instead.
- Ann – This project will not have a final report but a memo. **Action item:** Kirsten to check with Jo Sias on incorporating what they received from MA by way of comments into their RNSs and submit a final package to CTC and NETC.

3) Financial update

- Total fund balance is \$1.5M – Transfers plus ME contributions.

- Dale – All contributions up to date. CT has provided FY2020 funds and is the only member to do so thus far.
- Dale – What do you want to see for financial updates? Emily – Assign years to transfers. **Action item:** Dale will add more details to the sheet, so the funds transfers are clearer on the next update.
- Emily – Has ME received any invoices for project 18-2? Dale – Both ME and CTC have been bugging UMass about this. The university bills based on deliverables, so they haven't submitted an invoice yet because they have not submitted the first deliverable. That deliverable should be coming next week so there should be an expenditure next month.
- The 19-series projects don't have contracts yet so those contract amounts may change.

4) Implementation of past NETC projects

- **Continuing action items:**
 - ~ **Action item:** Kirsten will update the spreadsheet that Ann sent on 5/28/19.
 - ~ 13-3: Improved Regionalization of Quality Assurance (QA) Functions – **Action items:** Dale will follow up Rick Bradbury and the fabrication engineer. Ann will connect with Dale to set up a conference call to include all those relevant to the process, which may include folks from materials, concrete and finance.
 - ~ 15-4 QRP: Optimizing Quality Assurance (QA) Processes for Asphalt Pavement Construction in the Northeast quality assurance projects – Ann learned that the tri-state meeting is for operations folks. The Assistant Director of Operations feels this project is geared toward construction engineers who could be invited to the tri-state meeting as a kickoff. Ann shared the project fact sheet with the construction administrator and pavement engineer in construction to get their feedback prior to suggesting it to the front office officials as a tri-state effort.
- **15-series projects.**
 - ~ **Action item:** AC members will provide updates on implementation of the projects in their states at the October meeting.

[15-1: Use of Forested Habitat Adjacent to Highways by Northern Long Ear Bats \(and Other Bats\)](#) – [Fact Sheet](#)

CT – Michael Whaley	NH – Rebecca Martin
MA – Timothy Dexter	RI – None
ME – Richard Bostwick (chair)	VT – Glenn Gringas

[15-2: Using the New SHRP2 Naturalistic Driving Study Safety Databases to Examine Safety Concerns Teens and Older Drivers](#) – [Fact Sheet](#)

CT – Amanda Saul	NH – Michael Dugas
MA – Bonnie Polin	RI – None
ME – Duane Brunell (chair), Rhonda Fletcher	VT – Bruce Nyquist

[15-3: Moisture Susceptibility Testing for Hot Mix Asphalt Pavements in New England](#) – [Fact Sheet](#)

CT – Elaina Carlson	ME – Derek Nener-Plante (chair)
MA – Mark Brum	NH – Beran Black

RI – Michael Byrne

VT – Andy Willett

[15-4: Quick Response: Optimizing Quality Assurance \(QA\) Processes for Asphalt Pavement Construction in the Northeast – Fact Sheet](#)

CT – Bob Lauzon

NH – Denis Boisvert

MA – John Grieco (chair), Mark Brum (vice-chair)

RI – Michael Byrne

ME – Kevin Cummings

VT – Aaron Schwartz

- **Discuss implementation of 13-, 14- and 17-series projects at October meeting.**
 - ~ **Action item:** Move discussion to November. Kirsten will send out the implementation spreadsheet with the projects and TC members at the end of October for the AC to complete.

Project # and Title	PI, University <i>AC Liaison</i>	End Date
13-1: Development of High Early-Strength Concrete for Accelerated Bridge Construction Closure Pour Connections	Brena, UMass Amherst E. Parkany	8/31/17
13-3: Improved Regionalization of Quality Assurance (QA) Functions	Dave, UNH M. Sock	4/2/17
14-1: Measuring the Effectiveness of Competency Models for Job Specific Professional Development of Engineers & Engineering Technicians	Ahmadjian, UMass Amherst D. Peabody	12/31/17
17-2: Quick Response: Quantification of Research Benefits	Frank Gross, VHB E. Parkany/ F. Pereira	1/5/19
17-1: Quick Response: New England Connected and Autonomous Vehicles	Chris Chaffee, AECOM E. Parkany	10/10/18
Implementation of Project 13-3/Phase II	Dave, UNH TBD	1/25/19

- **Closeout webinars for past projects**
 - ~ PIs have agreed to conduct a webinar on the following projects:
 - 15-2: Using the New SHRP2 Naturalistic Driving Study Safety Databases to Examine Safety Concerns for Older Drivers. Michael Knodler, UMass Amherst
 - 15-3: Moisture Susceptibility Testing for Hot Mix Asphalt Pavements in New England. Dave Eshan, UNH
 - 15-4: Quick Response: Optimizing Quality Assurance (QA) Processes for Asphalt Pavement Construction in the Northeast. Jo Sias, UNH
 - 17-2: Quick Response: Quantification of Research Benefits. Frank Gross, VHB
 - (a) **Action item:** Kirsten will inform the PI that a webinar is not needed as we already have one recorded.
 - Kirsten will schedule the webinars and practice sessions. Who else should be involved? TC members?
 - (a) Emily – Invite the states that are more excited about the project and ask them to share some information from their state.
 - (b) Ann – Is the goal of a webinar to present the information? Make it an option for the states to add their experience at the end.
 - (c) Matt – Will the webinars have a similar framework? Yes.

(d) Emily – Keep the webinars o 30-45 mins. Record them and put on the NETC website.
Advertise them and put a link to the webinars on the NETC site.

- ~ PIs who have declined a webinar
 - o 15-1: Use of Forested Habitat Adjacent to Highways by Northern Long Ear Bats (and Other Bats) – Jeff Foster will have a related publication ready soon that will share with NETC.
- ~ PIs not heard from
 - o 17-1: Quick Response Project: New England Connected and Autonomous Vehicles

5) June 2019 NETC Symposium – Continuing discussion on when to have the next Symposium

- No decision was made. Some folks are okay with waiting until 2021 while others are open to 2020.
- Symposium objectives - Is the main purpose to get research needs for NETC projects or is it more of a networking event for technical experts from the NE states? Or both?
- Potential new topic groups – Construction, Geotechnical, Highway Design, HR, TSMO, Transit
- **Action item:** Kirsten to place this discussion earlier during the October meeting.

6) NEMREM survey results

- A survey was sent to 34 Materials folks to inquire about their interest in holding a NEMREM meeting in 2020. Eleven responses were received. All indicated an interest in continuing the annual NEMREM meeting. Almost half of the respondents were concerned with individually bearing the cost to attend.
- Dale – This is a good time to separate NETC from NEMREM. NETC’s research goes beyond materials. Ann agrees. **Action item:** Ann will talk to Joe Blair about this and let him know that NEMREM will have to organize and fund future meetings.
 - ~ Emily – John Grieco (MA) expressed interested in the path forward for a NEMREM discussion.

7) Website refresh ([NETC website](#))

- **Action item:** Kirsten will schedule a separate meeting to discuss the proposed website updates.

8) Other Business

9) Adjourn

Next meeting: October 22nd from 11:00am – noon ET

September 18, 2019

To: NETC Advisory Committee

From: Dr. Gregory Rowangould, University of Vermont Transportation Research Center

Assessment of NETC Research Problem Statements

NETC solicited research problem statements related to topics discussed at the ICNet Workshop. NETC requested that NETC's university partners assist in evaluating the importance of the research described in the problem statements. The following is my evaluation.

I do not have research experience or expertise in all of the areas covered by these problem statements; therefore, my assessment is based on reviewing the content provided within each problem statement. I generally focused on two aspects of the research problem statements:

- Is there a clearly defined problem that has sufficient evidence to support its importance to NETC constituents and the New England region?
- Do the research objectives align with the research problem and if completed successfully would they address the research problem?

Rather than commenting on individual research problem statements, I have provided an overall assessment of the pool of statements that were provided to me. A candid review of individual research problem statements should be completed using a confidential process where the identity of reviewers is kept anonymous to those who have proposed each research problem statement.

My overall assessment is that NETC should consider providing clearer guidance to those who generate research problem statements and consider updating the required format for research problem statements. Addressing these issues would enable a more reliable vetting process. Alternatively, NETC could consider changing how research proposals are generated.

Current NETC Process

One issue with the current process is the separation of the "research problem statement" section and the "literature search" section. There are generally two components to a strong research problem statement: defining a concrete problem and explaining the importance of addressing it. The strongest problem statements and research proposals are able to position the problem within the existing body of knowledge to demonstrate the research need and its importance. The relevance of the problem to various constituents is also a component of a research need but establishing that a knowledge gap truly exists should be the first consideration. The current problem statement format seems to result in research problems being defined largely on constituent needs rather than on the basis of defined knowledge gaps. Eliminating the literature review section and requiring that the "research problem statement" section discuss gaps in current knowledge, literature and studies to help demonstrate the research need may result in more clearly defined problem statements.

A second issue with the current process is that the "research objectives" section of many problem statements mix research objectives and research methods. Since these problem statements are not research proposals, the discussion of specific methods for accomplishing research objectives seems misplaced. Furthermore, it was not always clear how accomplishing specific objectives would address

the research problem that was previously identified. NETC should encourage those submitting research problem statements to define specific research objectives and then explain how their successful completion would address the defined research needs. The methods and approach to accomplishing defined research objectives should be left to the research proposal phase.

Alternatives for Soliciting Research

As an alternative to improving the process for soliciting and vetting research problem statements, NETC could consider changing how it solicits research more generally. The current process requires three steps: soliciting and reviewing research problem statements, generating requests for proposals, and then soliciting and reviewing research proposals. Many alternatives are possible.

One general approach is generating a strategic plan that defines major challenges and lays out priority research areas (see for example the Health Effect Institute's strategic plan: <https://www.healtheffects.org/about/strategic-plan>). A strategic plan may be born out of a conference or workshop where all relevant constituents periodically meet together to review the results of previously funded research and discuss new and continuing needs. An open call for research proposals could then be used to solicit research that addresses the strategic plan but not specific research needs/problem statement. This type of process may result in more creative and competitive proposals while reducing the administrative burden associated with soliciting and reviewing research problem statements.

A second approach that NETC could consider in combination or separately from the above, is defining two or more categories of research project types. Some of the problem statements identified the need for new data and information that could be collected through a traditional research study. Other problem statements focused more on implementation and management challenges that may be better addressed through a careful review of current knowledge and best practices. It may be that NETC constituents have a need for more information about possible solutions to their current challenges that do not require new research but a better understanding of current research and practice.