

Meeting Minutes: NRRRA Intelligent Construction Technologies (ICT) Team (Meeting No. 2)

(Agency & Associate Member Meeting)

Date: September 6, 2018
Minutes prepared by: Rebecca Embacher
Location: Skype

Attendance

Agency Members

| Participated | Affiliation | State Contact |
|-------------------------------------|-------------|----------------------|
| <input checked="" type="checkbox"/> | California | Deepak Maskey |
| <input checked="" type="checkbox"/> | California | Ragu Thangavelautham |
| <input checked="" type="checkbox"/> | Illinois | Brian Hill |
| <input checked="" type="checkbox"/> | Minnesota | Rebecca Embacher |
| <input checked="" type="checkbox"/> | Minnesota | Kyle Hoegh |
| <input checked="" type="checkbox"/> | Missouri | Bill Stone |

Associate Members

| Participated | Affiliation | Contact |
|-------------------------------------|--------------------------------------|-------------------|
| <input checked="" type="checkbox"/> | GSSI | Roger Roberts |
| <input type="checkbox"/> | GSSI | Roger Summerfield |
| <input type="checkbox"/> | Infrasense | Ken Maser |
| <input checked="" type="checkbox"/> | Leica Geosystems | Brad Adams |
| <input checked="" type="checkbox"/> | Mathy Construction | Erv Dukatz |
| <input checked="" type="checkbox"/> | Minnesota Asphalt Paving Association | Brandon Brever |
| <input checked="" type="checkbox"/> | The Transtec Group, Inc. | George Change |

Friends

| Participated | Affiliation | State Contact |
|-------------------------------------|-------------|-------------------|
| <input checked="" type="checkbox"/> | FHWA – MN | Kevin Kliethermes |
| <input checked="" type="checkbox"/> | Minnesota | Curt Turgeon |
| <input checked="" type="checkbox"/> | Minnesota | Ben Worel |

Other Attendees: Matt Zellar (Minnesota Concrete Paving Association), Bob Flipczak

Decisions Made

- Agreed on ICT mission statement and goals.
- Agreed to move forward with using the Ideascale for submittal of project ideas.

Action items

- NRRRA-ICT Team | Brainstorm items that should be potentially funded by NRRRA. Add items to Ideascale prior to October meeting for future discussions by team. The Ideascale link is at: <https://mndot-lrrb.ideascale.com/a/ideas/recent/campaign-filter/byids/campaigns/61069/stage/unspecified>

Agenda

- Current NRRRA – ICT Members
- Mission Statement and Goals
- Meeting No. 1 Summary
- Ideascale

Next Meeting

Date: October 4, 2018

Time: 10:30-11:30AM Central Time

Location: Skype

(no conference call will be used; skype audio is also available via smart phone application if needed)

Agenda items: Discuss items submitted to Ideascale

Meeting Notes

See attached slides.

Current NRRRA – ICT Team Members

Discussed the current agency, associate and friends of this committee.

Mass e-mail was sent out to the Intelligent Construction Technologies (ICT) – Expert Task Group (ETG) to spark interest in NRRRA and this newly created team. There has been some interest.

The NRRRA – ICT will be brought up again to industry at the next ICT-ETG meeting on October 10, 2018.

Mission Statement and Goals

Reviewed the mission statement and goals. There were no concerns with how they are currently written.

Meeting No. 1 (Agency Meeting)

Provided a summary of the discussions that the agencies had at this first meeting. The objective of this meeting was aimed towards discussing future state funding options between the various pooled funds that are currently related to part of the NRRRA-ICT mission. The mission statement was also discussed.

The connection between the following pooled funds was discussed and how to prevent silos among these pooled funds (or groups) and NRRRA: TPF-5 (334) – Veta Enhancements, TPF-5 (354) – ProVAL – pavement smoothness, ICT-ETG and SHRP2 R06C – PMTP and dielectric profile method.

The following action items resulted from this meeting: Embacher will send out NRRRA ICT team membership opportunities to the ICT-ETG; Stone will discuss NRRRA with the TPF-5 (334) pooled fund; Worel will start discussions on how to merge some of these pooled funds to NRRRA in the future.

Ideascale

Discussed how MnDOT research services currently uses the Ideascale and that they have opened up the Ideascale for use by NRRRA.

Discussed how the Ideascale can be used by the NRRRA-ICT team to track project ideas for the team to review. The team agreed that this method would be used.

Requested that the NRRRA-ICT team start brainstorming ideas of projects that can be completed by the NRRRA-ICT team and enter those thoughts into the Ideascale prior to the October meeting.

The NRRRA-ICT team currently has \$500,000 potentially allocated for its use. Reminded folks that the Executive Committee makes the final decision on which projects move forward. Consequently, the NRRRA-ICT team would prioritize potential projects based upon available budget/funding and submit those that are being proposed to be funded for consideration by the Executive Committee.

Shared where to find the link to enter information into the Ideascale: <https://mndot-lrrb.ideascale.com/a/ideas/recent/campaign-filter/byids/campaigns/61069/stage/unspecified>

Some project ideas had previously been submitted via e-mail. Requested those individuals to add the proposed projects to the Ideascale for review by the NRRRA-ICT team at the next meeting.

The goal is to get the contract paperwork in by the end of December 2018 for execution of work on given projects.

NRRA – ICT Team

MEETING #2 09/05/18



Agenda

Current NRRA – ICT Members

Mission Statement and Goals

Meeting No. 1 Summary

Ideascale



Current NRRRA ICT Team Members

Agency Members

- Caltrans, Deepak Maskey
- Caltrans, Ragu Thangavelautham
- Illinois – Brian Hill
- Minnesota – Rebecca Embacher & Kyle Hoegh
- Missouri – Bill Stone

Associate Members

- GSSI – Roger Roberts & Roger Sommerfeld (in process to join)
- Infrasense – Ken Maser
- Leica Geosystems – Brad Adams (in process to join)
- Mathy Construction – Erv Dukatz
- Minnesota Asphalt Paving Association – Brandon Brever
- The Transtec Group – George Chang

Friends

- Minnesota – Curt Turgeon, Ben Worel, Dave Van Deusen



NRRRA ICT Team | Mission Statement

ICT includes innovative technologies for:

planning
design
construction
real-time quality control/monitoring
management for the lifecycle of infrastructure construction

Activities include:

- short-term & long-term research
- field evaluation and/or demonstration of current and emerging technologies
- partnering with industry to assist with development and deployment of technologies
- creation of tools and resources to assist with deployment efforts
- technology transfer among NRRRA partners
- specification development
- providing input to the technology transfer team on what should be marketed



NRRA ICT Team | Goals

Identification of gaps of current construction practices and technologies

Evaluation of recent research and emerging ICT

Construction of test sections, or identification of locations/projects, that can be used to validate (or further develop) a given ICT

Information sharing (e.g., lessons learned, best practices, etc.)

Advancement of ICT and data analysis methods

Creation of tools and resources to assist with deployment and training efforts

Development and refinement of ICT-related standards



NRRA ICT Team | Members

Equipment Manufacturers and Vendors

Highway Construction Contractors

Federal and State Agencies

Researchers and Academia

Consultants

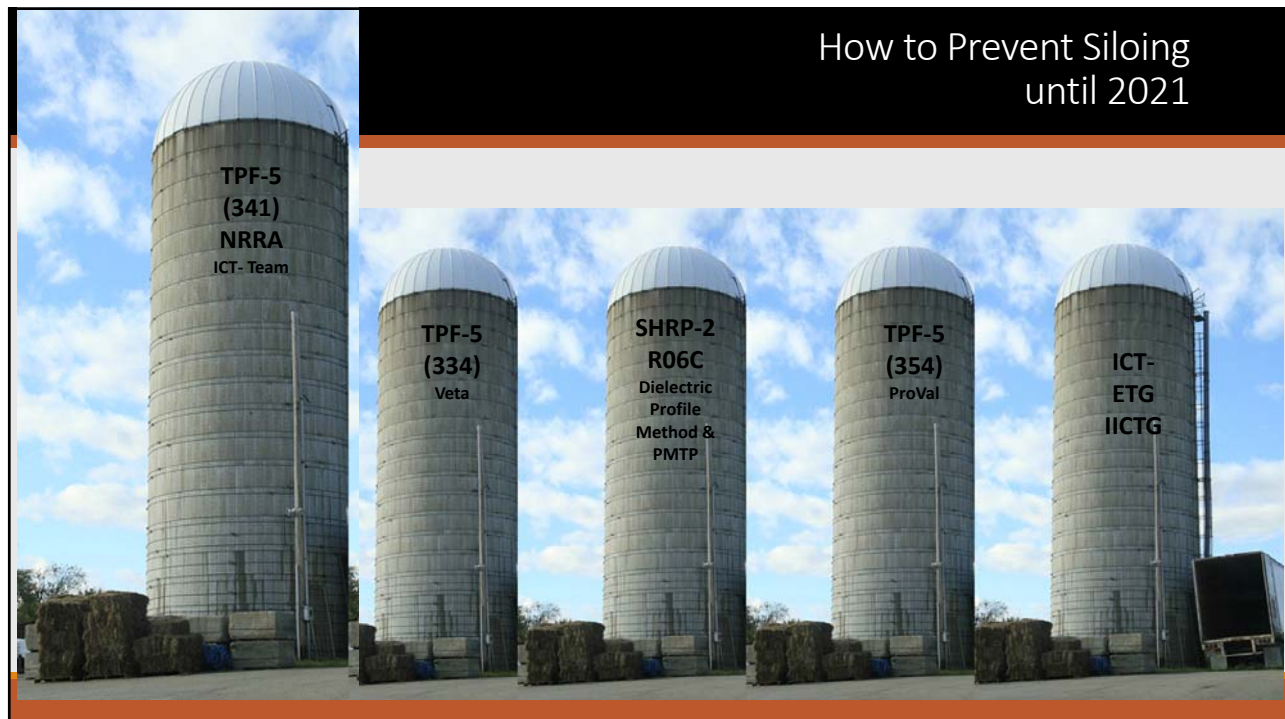


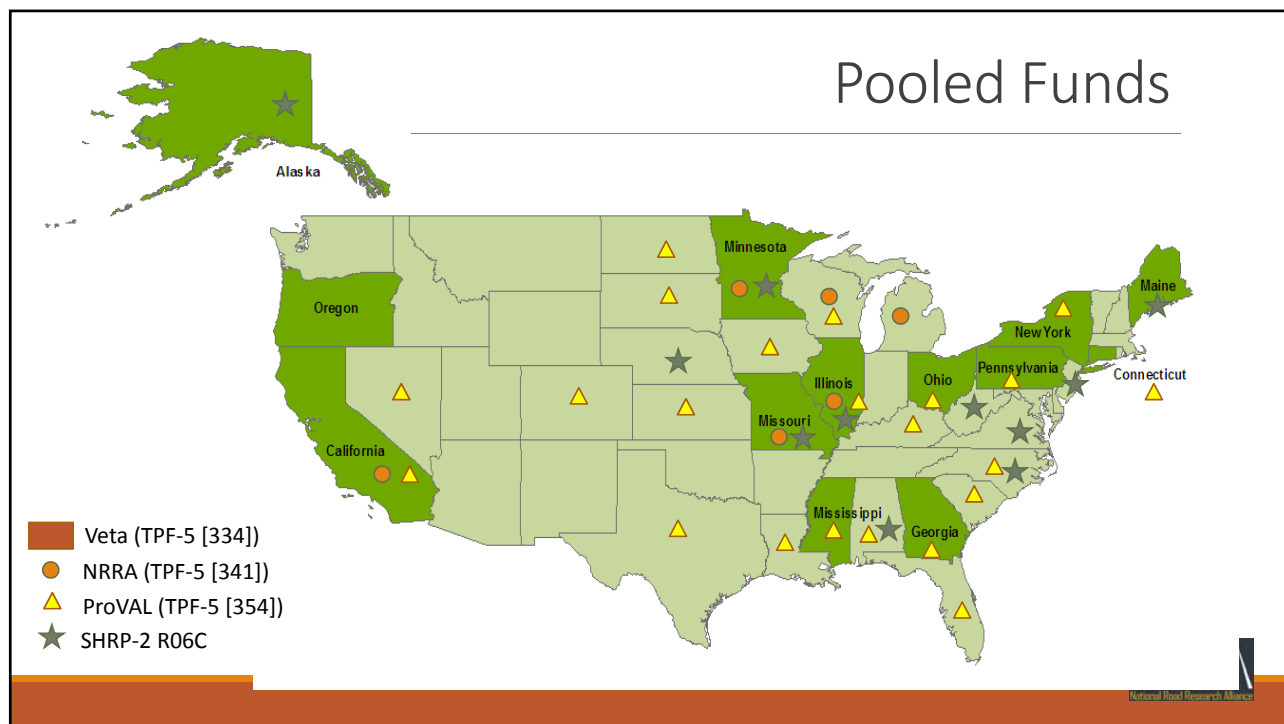
Meeting #1 08/02/18

Agency Member Meeting

Objectives

- State funding to NRRRA vs. TPF-5 (334) Pooled Fund
- How to prevent silos
- First review of mission statement





Meeting #1 Action Items

Ben Worel

- Send new team information out to current NRRA members to determine interest to participate with team.
- Create visualization of how to potentially merge TPF-5 (334) and NRRA in the future.

Embacher

- Send out NRRA ICT team and membership opportunities to Intelligent Construction Technologies – Expert Task Group

Bill Stone (Missouri)

- Discuss NRRA with TPF-5 (334) pooled fund

Ideascale


Intelligent Construction Technologies Team

[Submit New Ideas for Intelligent Construction for MnROAD research](#)

The NRRA ICT team is comprised of technical experts in the area of intelligent construction technologies (ICT). ICT includes innovative technologies for planning, design, construction, real-time quality control/monitoring, and management for the lifecycle of infrastructure construction. The ICT team's

registerlog in





MN Transportation Research Collaboration Site

NRRA – Intelligent Construction Technologies

WELCOMEIDEAS

Submit New Idea



NRRA – INTELLIGENT CONSTRUCTION TECHNOLOGIES

Support Importing, Viewing and Analysis of Dielectric Constant Data in Veta

Veta is a map-based tool for viewing and analyzing geospatial data, currently including intelligent compaction (IC), paver-mounted thermal profiling (PMTTP), and laser test rolling. It is developed and continuously enhanced under the sponsorship of MnDOT and TPF Pooled Fund Study "TPF-5(334) Enhancement to the Intelligent Construction Data Management System (Veta) and Implementation". It is required in the FHWA IC specifications, ...[more](#) »

Submitted by [rebecca.embacher](#) (@rebecca.embacher) 4 minutes ago

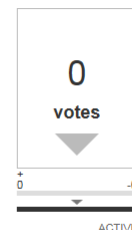


NRRA – INTELLIGENT CONSTRUCTION TECHNOLOGIES

Independent Verification of Paver Mounted Thermal Profile (PMTTP) Surface Temperature Measurements

FHWA 23 CFR 637.207 states that quality control sampling and testing results may be used as part of the acceptance decision provided that the quality of the material has been validated by the verification sampling and testing. The verification testing shall be performed on samples that are taken independently of the quality control samples. As a result of SHRP-R06C many states are moving forward with deployment of the ...[more](#) »

Submitted by [rebecca.embacher](#) (@rebecca.embacher) 15 minutes ago



Additional Ideas Submitted to NRRA – ICT Team

Evaluation of Levels 3-4 Intelligent Compaction Measurement Values (ICMV) for Soils and Subgrade and Aggregate Subbase

Lower Cost Highway Noise Abatement Using Sound Waves

Technology Transfer – Intelligent Compaction and Paver Mounted Thermal Profiling Support

Goal: Contract paperwork submitted in December 2018.

