



# Meeting Minutes: NRRRA Intelligent Construction Technologies (ICT) Team

(Agency & Associate Member Meeting)

Date: September 5, 2019  
 Minutes prepared by: Rebecca Embacher  
 Location: Skype

## Attendance

### Agency Members

Participated	Affiliation	State Contact	e-mail
<input type="checkbox"/>	California	Deepak Maskey	<a href="mailto:deepak.maskey@dot.ca.gov">deepak.maskey@dot.ca.gov</a>
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<input checked="" type="checkbox"/>	Illinois	Brian Hill	<a href="mailto:Brian.Hill@illinois.gov">Brian.Hill@illinois.gov</a>
<input checked="" type="checkbox"/>	Minnesota	Rebecca Embacher	<a href="mailto:rebecca.embacher@state.mn.us">rebecca.embacher@state.mn.us</a>
<input checked="" type="checkbox"/>	Minnesota	Kyle Hoegh	<a href="mailto:kyle.hoegh@state.mn.us">kyle.hoegh@state.mn.us</a>
<input type="checkbox"/>	Missouri	Jen Harper	<a href="mailto:Jennifer.Harper@modot.mo.gov">Jennifer.Harper@modot.mo.gov</a>
<input type="checkbox"/>	Missouri	Dan Oesch	<a href="mailto:Daniel.Oesch@modot.mo.gov">Daniel.Oesch@modot.mo.gov</a>
<input checked="" type="checkbox"/>	North Dakota	Curt Dunn	<a href="mailto:cdunn@nd.gov">cdunn@nd.gov</a>
<input checked="" type="checkbox"/>	North Dakota	Amy Beise	<a href="mailto:abeise@nd.gov">abeise@nd.gov</a>

### Associate Members

Participated	Affiliation	Contact	e-mail
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<input checked="" type="checkbox"/>	Caterpillar Global Paving	Todd Mansell	<a href="mailto:mansell_todd_w@cat.com">mansell_todd_w@cat.com</a>
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<input type="checkbox"/>	The University of Texas at El Paso	Nazarian Soheil	<a href="mailto:nazarian@utep.edu">nazarian@utep.edu</a>
<input type="checkbox"/>	GSSI	Roger Roberts	<a href="mailto:roger@geophysical.com">roger@geophysical.com</a>
<input type="checkbox"/>	GSSI	Roger Sommerfeldt	<a href="mailto:sommerfeldtr@geophysical.com">sommerfeldtr@geophysical.com</a>
<input checked="" type="checkbox"/>	Infrasense	Ken Maser	<a href="mailto:kmaser@infrasense.com">kmaser@infrasense.com</a>



<input type="checkbox"/>	Leica Geosystems	Brad Adams	<a href="mailto:brad.adams@leicaus.com">brad.adams@leicaus.com</a>
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<input type="checkbox"/>	WSB & Associates	Mike Rief	<a href="mailto:mrief@wsbeng.com">mrief@wsbeng.com</a>
<input checked="" type="checkbox"/>	WSB & Associates	Andrea Blanchette	<a href="mailto:ablanchette@wsbeng.com">ablanchette@wsbeng.com</a>

### Friends

Participated	Affiliation	State Contact	e-mail
<input type="checkbox"/>	FHWA – MN	Kevin Kliethermes	<a href="mailto:Kevin.Kliethermes@dot.gov">Kevin.Kliethermes@dot.gov</a>
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<input type="checkbox"/>	Minnesota	Ben Worel	<a href="mailto:ben.worel@state.mn.us">ben.worel@state.mn.us</a>
<input type="checkbox"/>	Minnesota	Bob Filipczak	<a href="mailto:robert.filipczak@state.mn.us">robert.filipczak@state.mn.us</a>
<input type="checkbox"/>	Minnesota	Dave Van Deusen	<a href="mailto:dave.vandeusen@state.mn.us">dave.vandeusen@state.mn.us</a>
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<input checked="" type="checkbox"/>	North Dakota	Jordan Nehls	<a href="mailto:jnehls@nd.gov">jnehls@nd.gov</a>
<input checked="" type="checkbox"/>	North Dakota	Darin Lindblom	<a href="mailto:dlindblom@nd.gov">dlindblom@nd.gov</a>
<input type="checkbox"/>	North Dakota	Carey Schreiner	

Other Attendees: Nathan Haaland



## Decisions Made

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- None at this time.

## Action items

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- NRRRA ICT Team | Collect thermal images capturing workmanship issues for use in development of training materials.

## Agenda

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- Project Updates
- Call for Innovation Update
- Round-Robin

## Next Meeting

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Date: October 3, 2019

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: TBD

## Meeting Notes

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### Project Updates

*Seismic Approach to Quality Management of Asphalt Paving Applications*

RFP closes September 12, 2019.

*Importing Dielectric Measurements into Veta*

Still completing Amendment #2 tasks. After these tasks are completed work will commence on this contract. Anticipate to start early 2020.



### *Evaluation of Levels 3-4 ICMV for Soils Subgrade and Aggregate Subbase Compaction*

Kick-off meeting was on August 9, 2019. George Chang (Transtec Group) and Nazarian Soheil (University of Texas at El Paso) provided project overview which included the following: project objectives, research team, industry partners and levels of ICMV. Chang and Soheil went into detail related to the scope of work.

It is anticipated that the integration of SCMG OEM IC roller with SINECORE level 3-4 ICMV to be completed by end of September 2019. Chang will arrange for a meeting between Moba and SINE to facilitate work after complete of SINECORE integration.

Due to contract execution start date, test sites in northern US states not practical (winter). Consequently, test site will be relocated to UTEP areas.

### **Call for Innovation**

No proposals were submitted by NRRRA ICT team members, and consequently, this team is not being tasked with voting on any proposals.

### **Round-Robin**

Embacher / Kowalski – discussed upcoming Intelligent Construction Technologies – Expert Task Group (ICT-ETG) and International Society for Intelligent Construction North America (ISIC NA) chapter combined meeting. It is being held on October 2, 2019 from 9AM to 5PM CDT at the Arden Hills Training Center in Minnesota and also through GotoMeeting. Space is limited both online and at the Arden Hills Training Center, and therefore, register as soon as possible. Registration link is: <https://www.eventbrite.com/e/ict-etg-and-isic-na-chapter-combined-meeting-tickets-71303016241>. The agenda is also available via this link.

Discussed future ISIC NA conference. Will ensure that it does not fall on the same year as the larger trade shows to ensure that vendors have enough time and resources to participate.

Embacher – Discussed need for development of “cheat sheet” to assist Veta users with identification of workmanship issues using the PMTP method. As deployment continues to increase, contractors are now paying more attention to thermal measurements and using this information to assist with modification of construction activities. Information displayed real-time on the data acquisition systems and post processed within Veta are being used to assist with this review. However, the individuals creating the Veta projects might not have field experience, and therefore, have difficulties understanding potential causes of given thermal segregation patterns. Recommend for users (i.e., agency / industry) to capture images of workmanship issues and thermal measurements to compile for creation of this reference document. It was noted, that there are publications containing causes of thermal/material segregation, however, these are too long for use as quick guides and often do not contain the corresponding thermal image.

Updates on Independent Verification of IC and PMTP measurements. Currently, MN and MO are working on determining how to best complete these processes. MnDOT has currently loaned out 2 temperature cameras to



construction staff for capturing of independent thermal profile measurements transversely across the mat. Images (and associated PMTP data within Veta) will be reviewed this winter. MnDOT has still not acquired an asset tracker for monitoring of IC measurements. MnDOT is hoping to have some trackers purchased by this fall for independent monitoring of IC trajectories.

NRRRA Team – discussed truck insulation. It was confirmed that some trucks indeed are insulated in the US. Studies have been completed in Europe illustrating benefits of insulated trucks on reduction of thermal segregation. Recommend including this reminder when teaching basics related to good construction practices.