



Midwest Bridge Preservation Partnership

Agenda – Monthly Teleconference

Tuesday August 3rd, 2021

1:00 – 2:00 PM CST

• **Roll Call –**

NCPP Representatives			Industry Representatives		
Darlene Lane	NCPP	☒	Tim Woolery	Adv. Chem. Tech.	☒
Ed Welch	NCPP	☐	Lorella Angelini	Angelini Consulting	☒
John Hooks	NCPP	☒	Patrick Martens	Br Pres & Insp Svcs	☐
Chris Keegan	NCPP	☒	Allen Scarborough	CMC	☒
State Agency Representatives			Barritt Lovelace	Collins Eng.	☐
Michael Hill	Arkansas DOT	☒	Drew Garceau	Collins Eng.	☐
Sarah Wilson (Director)	Illinois DOT	☒	Thomas Collins	Collins Eng.	☐
Adam Post	Indiana DOT	☐	Brent Toller	DS Brown	☐
Jennifer Hart	Indiana DOT	☐	Mark Ericson	ECHEM	☐
Jeremy Hunter	Indiana DOT	☐	Ray Breer	ECHEM	☐
Mark Swiderski	Indiana DOT	☐	Diana Hellman	FujiFilm	☒
Joe Stanisz	Iowa DOT	☒	Jason Fogg	HDR, Inc.	☐
Scott Neubauer	Iowa DOT	☒	LJ Dickens	HNTB	☒
Dominique Shannon	Kansas DOT	☐	Ed Liberati	Hughes Group	☐
Don Whisler	Kansas DOT	☐	Blake Liberati	Hughes Group	☒
Jim Leaden (Secretary)	Kansas DOT	☒	Kevin Irving	Int. Zinc Assoc.	☐
John Culbertson	Kansas DOT	☐	Greg Heilman	Jet Filter System	☒
Josh Rogers (Director)	Kentucky TC	☒	Paul Vinik	GPI	☐
Brandon Boatman	Michigan DOT	☐	Richard Dunne	GPI	☒
Jacob Creisher	Michigan DOT	☐	Paul Jensen	Jensen Eng.	☒
Jason DeRuyver	Michigan DOT	☒	Dave Juntunen	Kercher Group	☒
Paul Pilarski	Minnesota DOT	☐	Drew Storey	Kercher Group	☒
Sarah Sondag (Vice Chair)	Minnesota DOT	☒	Bobby Scarpitto	Kwikbond	☒
Jerry Goodman	Missouri DOT	☒	Gregg Freeman	Kwikbond	☒
Todd Miller	Missouri DOT	☒	Josh Bunderson	Metal Fatigue Soln.	☐
Fouad Jaber	Nebraska DOT	☐	Adam Hales	Phoscrete	☒
Kent Miller	Nebraska DOT	☐	Kyle Bartfay	Phoscrete	☐
Mark Traynowicz	Nebraska DOT	☐	Paul Imbrock	PoreShield	☒
Barry Kinnischtzke	North Dakota DOT	☒	Tessellen Fennelly	PoreShield	☒
Matthew Kurle	North Dakota DOT	☐	Richard Huza	Salit Steel	☐
Nancy Huether	North Dakota DOT	☒	Derrick Castle	Sherwin Williams	☐
Brad Noll	Ohio DOT	☒	Mark Hudson	Sherwin Williams	☐
Jared Backs	Ohio DOT	☒	Aamer Syed	Sika	☐
Mike Brokaw	Ohio DOT	☐	Fabio Puzzo	Sika	☐
Walt Peters	Oklahoma DOT	☒	Chris Davis	Structural Tech	☒

David Coley	South Dakota DOT	☒	Tom Donnelly (Vice Chair)	Transpo	☐
Todd Thompson	South Dakota DOT	☒	Michael Stenko	Transpo	☐
Alex Pence	Wisconsin DOT	☒	Lawrence Kirchner	TranSystems	☒
Bill Oliva (Chair)	Wisconsin DOT	☒	David Brodowski	TrueTech Bridge	☒
Philip Meinel	Wisconsin DOT	☐	Peter Seibert	UHPC Soln.	☐
Ryan Bowers	Wisconsin DOT	☒	Kevin Stumpf	Uretex USA	☐
Travis McDaniel	Wisconsin DOT	☒	Kevin Stalz	Washer Coatings	☐
David Bohnsack	Wisconsin DOT	☒	Nick Graziani (Director)	Watson Bowman	☐
Local Agency Representatives			Kevin Stalz	Washer Coatings	☐
Mel Quick-Miller	Harrison Cty IN	☐	Unknown Affiliation		
Javier Romero	Cook County, IL	☐	Paul Denkler		☒
Academia Representatives			Alla Eddine Acheli		☒
Basak Bektas	MN State Mankato	☐	Jim Hauber		☒
Glenn Washer (Director)	U of Missouri	☒	Kelly Tomjanovich		☒
Pat Conner (Director)	Indiana LAP	☒	Michael Stroia		☒
FHWA Representatives			Anthony Stakston	DOT	☒
Larry O'Donnell	FHWA	☐	Steven Conley		☒
Raj Ailaney	FHWA	☒	Guest Speakers		
Scott Stotlemeyer	FHWA	☒	Dr. Bruce Russel	Oklahoma State Univ.	☒
Tim Anderson (Director)	FHWA	☒			

Before the Meeting began, some attendance logistics were provided: Rick Marz, the Maintenance Chief of the Wisconsin DOT retired back in May of 2021. Dave Bohnsack is the new Chief of Bridge Maintenance in the Central Bureau of the Wisconsin DOT. He has an extensive background in bridge maintenance, inspections, as well as Research. He is Wisconsin DOT's 2nd representative of the MWBPP.

• Approval of Minutes – July 2021 Monthly Meeting

Bill Oliva displayed the meeting minutes from the July 6th, 2021 MWBPP Monthly Teleconference. There were no comments, corrections, or additions to the minutes. John Hooks made a motion to approve the minutes. Bill Oliva seconded the motion. There was no opposition. The minutes were approved.

• 2021 MWBPP Annual Meeting (TBD) – John Hooks -

- Update on the December 2021 WBPP/MWBPP Annual Meeting.
- Draft Agenda
- **Travel Scholarships – we will be asking if there is desires from members for travel scholarships (example: a state would like to bring a third participant)**

After the next planning call, John will recruit panel members. At this point we are 4 months out from the Annual (face-to-face) Meeting, and we are in pretty good shape as far as the agenda goes. John stated that there are 25 members that paid their 2020 dues and did not ask for a refund. So, we have 25 companies that have already signed up to exhibit at both the SEBPP Annual Meeting and the joint WBPP / MWBPP Annual Meeting. He anticipates that there may even be

more. Bill Oliva thanked John for his efforts along with the WBPP for consideration and allowing the MWBPP to join them for the Annual Meeting in December 2021.

Bill then shifted discussion on the available Travel Scholarships that will be provided by the MWBPP to State DOTs and other agencies. The Board met on July 26th, 2021 to discuss promoting attendance and offsetting the costs. The MWBPP will offer 7 travel scholarships in addition to the 2 funded members of each paid DOT member. Bill asked the DOTs to submit names if they have additional people that want to go to the Annual Meeting. If they were interested, the DOTs were encouraged to email Bill Oliva, Sarah Sondag, and Jim Leaden (Cc all 3). Provide the Organization (your State, or other), the Name of the person, a description of their interest, and a reason why it would be beneficial to attend. Do this by August 13th, 2021. On August 20th, 2021, there will be a Board Meeting to prioritize and award these scholarships. We will announce who was chosen for a scholarship in the MWBPP September monthly call.

A question was asked: Brad Noll (Ohio DOT) asked if the Draft Agenda has been released yet. Bill Oliva said not yet. Brad said that this could help in getting approval for Out-of-State Travel. John Hooks said he had some cleaning up to do but thinks he could send a draft out soon. He'll send it out by August 13th, 2021. Bill reiterated if your organization would like to take advantage of one of the Scholarships being offered to get the request sent in by August 13th, 2021.

- **MWBPP Deterioration Modeling Working Group (Bill Oliva)**

- Draft results from Task 6 Analysis (6.1 & 7.1)

Bill Oliva noted that they met last Friday and had an extremely detailed walk thru with the research team on the process from data collection to filtering into the analytics on spreadsheets related to the NBI. Good discussion and feedback from the research team. All the members are better poised to critically examine and give comments. Bill noted that the last 2 meetings have been recorded and are available in the Teams Application that they are using to track comments between the research team and the States.

- **MWBPP Bridge Inspection Program Manager Working Group – Nancy Huether & John Hooks**

John Hooks started out by stating that the MWBPP Bridge Inspection Program Manager Working Group met on July 1st, 2021. There were 21 people logged-in to the meeting. They established ground rules, and elected officers. Mike Brokaw (Ohio DOT) volunteered to serve as the Chairman of the Working Group. Ed Lutgen (Minnesota DOT) volunteered to serve as the Secretary / Note-Taker. They are in the process of finding somebody to serve as the Vice-Chair. Mike Brokaw has taken charge on developing the agendas for future teleconference calls. The next call is scheduled for Thursday August 5th, 2021. Some ground rules for the monthly calls were developed, and expectations of the members were discussed. The consensus revolved around sharing and discussing topics that the DOTs would face; challenges faced and overcome in their inspection programs, how DOTs worked with local bridge owners to ensure inspection requirements were met, adhering to FHWA policies and regulations, meeting the 23 metrics, challenges presented by the upcoming NBI regulations, and best practices in program management. Mike Brokaw will set the agenda and pick a discussion topic for each of the monthly calls. And these will begin Thursday August 5th, 2021.

- **Load test on the Emergency Vehicles (EV3) loading full scale lab bridge 40' span – Walt Peters & Dr. Bruce Russell (Oklahoma State University)**

Bill Oliva introduced Dr. Bruce Russell of Oklahoma State University who gave a great presentation on the topic referenced above. The 53 slide PowerPoint he used in his presentation is attached to these minutes.

- **NCHRP IDEA program - research for developing a nondestructive evaluation technology for testing the effectiveness of sealers in-place on bridge decks – Glen Washer (University of Missouri)**

Glenn washer took over the screen and used 21 slides to present on this topic. Glenn's talk was about the NCHRP project they had recently. Final reports will soon be done, and he will distribute it to MWBPP members. A little background... it was a short 2-year project funded by NCHRP in some proof of concept testing that Glenn will present here. They are looking into the future to maybe do some additional research in this area. The idea behind the research is to develop a way to test the effectiveness of sealers on bridge decks. There were 2 purposes: 1. for quality assurance from contracted work, and 2. Decide when it is time reseal a deck.

The concept: If you put water on the deck, the purpose of the sealer is to keep the water from penetrating the deck. If some water penetrated the deck, and you observed the evaporation of the water, those 2 things would look different in terms of the thermal signature. If you watched that with a thermal camera, you should see a signature that is different if the deck was sealed versus if it was not sealed. In an unsealed deck, some water would be absorbed and before it could evaporate, it would have to first come by capillary action to the surface. They would put a thermal imaging camera up on a mast, wet the deck and watch it dry, you should be able to see the difference of the sealed and unsealed areas of the bridge deck.

A little history on the technology... It was named UTD (Ultra Time Domain). They used this technology in determining the condition in existing bridge decks. The idea is that you put a camera in a fixed position over a bridge deck and collect data constantly for a day or two. Images/data would be taken and processed, and a thermal image would be developed. And results could be determined. Results could locate delaminations and defects in the bridge deck.

So, this technology was adapted and was used to see if the deck was sealed or not. The types of sealers they are testing are penetrating sealers that are designed to keep water from penetrating into the deck. The research developed an algorithm to look at the thermal signatures associated with the evaporation in the bridge decks when they were wetted. The time-based thermal images would be processed and reconstructed back into an image. They would look at the warming of the bridge decks to look at the rate at which the evaporation is allowing warming where it discriminated from sealed and unsealed conditions.

Glenn went over a field test associated with this research. A highway bridge over route 63 just north of Columbia MO. A MoDOT water truck wetted down the deck, the research team used the thermal imaging cameras to look at it and make measurements. Then MoDOT sealed the deck. Then the research team came back a couple days later and repeated the process. They took measurements in the sealed condition, and then compared the two.

They did two field tests. This particular test where they sealed the entire bridge deck, and another field test where they sealed just a portion of the bridge deck. The algorithm seemed to have worked good in these first couple tests. Glenn presented a result in an image of a bridge deck which showed the sealed versus unsealed portions distinguished by different colors.

So far they are happy with the results. They created the first in-place assessment method for penetrating sealers for bridge decks. Glenn doesn't think that anyone has done that before where it can be used in the field like this one does.

Glenn also mentioned that during the test, the lanes of the bridge remained open. He said that they took 5 hours to do the test, but all the action is really in the first hour once the deck has been wetted. The data collection time only took 30 minutes, and the whole test took less than an hour. Because the same technology is used for the deck sealer test as well as to determine if delaminations and defects exist in the deck, the bridge owner may choose to perform both tests on the bridge deck. Also, this test doesn't have to be set up to test the entire bridge deck, it could be set up over a local area as well.

Glenn noted that they are looking forward at doing a phase II study, but they need a the support of State sponsor to do that. Support could come in the form of money or even a letter of support. This report will come out as soon as Glenn finishes up some editing and it will be available on-line sometime in the Autumn of 2021. Glenn will go into more detail on this topic when he presents on it at the MWBPP/WBPP Annual Meeting scheduled to be in Phoenix in December, 2021.

Glenn then opened it up to questions: Bill Oliva asked if they were able to evaluate the effectiveness of a sealer that was already applied to a bridge deck. Glenn said he believes that this technology can do that but said that will take a little more research and testing.

- **Other New Business**

- Monthly Preservation Topics for September 7th - volunteers

Bill reiterated that if you are thinking of nominating someone for a scholarship to send an additional person to the Annual Meeting in Phoenix, that you get those in by 8-13-21 via email to Bill Oliva, Sarah Sondag, and Jim Leaden. The Board Meeting to select recipients of those scholarships will be on 8-20-21.

- **Next Monthly Meeting**

- **September 7, 2021**

- **Meeting Adjourned**

Bill thanked the speakers for their presentations, and the meeting adjourned on time.