

IOWA HIGHWAY RESEARCH BOARD (IHRB)

Minutes of May 20, 2022

Regular Members Present

J. Hauber
J. DeVries
C. Burke
R. Koester
R. Knoche
A. Bradley
D. Sanders
W. Weiss
T. Roll
J. Fantz
A. McGuire

Alternate Members Present

B. Wilkinson
T. Wolken

Members with No Representation

D. Skogerboe
A. Bardgett

Executive Secretary

V. Goetz

The meeting was opened on May 20, 2022 at 9:00 a.m. by Chair Andrew McGuire with an initial number of 12 voting members/alternates.

AGENDA

1. Agenda review/modification
2. Minutes Approval from the March 25, 2022 meeting

Motion to Approve by W. Weiss 2nd by R. Knoche

Motion carried with 12, 0, 0

Member Joined

3. Final Report ST-012, "Incorporating Digital As-Built Information into I-380 / I-80 Interchange BIM", Al Nelson, HDR Engineering, Inc., \$53,603.30, (15min)

Motion to Approve by W. Weiss 2nd by J. Hauber

Motion carried with 13, 0, 0

4. Final Report TR-790, "Alternative Funding Approaches for Iowa Roads", Eric Rouse, HDR Engineering, Inc., \$174,872, (15min)

Discussion

Q. The long-term plan did not include any Ag based fuel tax?

A. The revenue generated in the County would go back to that County, it would not go through the current allocation process from the State. It would return to the location where it was generated.

Motion to Approve by R. Koester 2nd by D. Sanders

Motion carried with 13, 0, 0

5. Final Report TR-721, "Low-Cost Rural Surface Alternatives Phase III: Demonstration Project", Jeremy Ashlock, Iowa State University, \$166,054, (15min)

Discussion

Q. The chemically treated sections with the calcium chloride which have been done previously, how does this fit into others that you have done?

A. We have discussed mixing this in with the whole surface course, this would be something to try with a new test section.

Q. When the Counties use calcium chloride for stabilization and then used PCC pavement over that surface, have you ever seen deterioration of the cement due to the calcium chloride?

A. Not aware of any Counties that have used calcium chloride as a base stabilization under pavement usually it's been more of a fly ash Portland type stabilization process.

Motion to Approve by W. Weiss 2nd by R. Knoche

Motion carried with 13, 0, 0

member left

6. Fall Idea Cycle – IHRB Ranking

Idea #	Idea	Tokens	Status
3625	Qualitative Relationship Between Increased Legal Loads and Reduced Bridge Service Life (#3625)	44	Idea Development
3633	Bridge Deck Strategy: Materials and Reinforcement (#3633)	40	Idea Development
3557	Engineering Fibers for Engineered Fiber-Reinforced Cementitious Materials (#3557)	33	Idea Development
3624	Performance Monitoring of two-course Bridge Deck Utilizing Ultra High Performance Concrete (#3624)	30	Idea Development
3556	New Generation of Adhesive Anchor Systems Made with Ultra-High Performance Concrete (#3556)	28	Idea Development
3560	Low-Cost Safety Strategies for Unpaved Rural Roads (#3560)	25	Idea Development
3590	Iowa Highway Research Board 75 Year Anniversary Publication (#3590)	16	Hold

3549	Test method to assess thermal shrinkage of concrete mixtures (#3549)	13	Hold
3559	Achieving Net-Zero Concrete Bridges through Digital Construction Paired with Carbon Sequestration (#3559)	13	Hold
3551	Large-scale Testing and Formulation of Guidelines for the Use of Lightweight Cellular Concrete (LCC) in Geotechnical Application (#3551)	9	Cancelled
3558	Sustainable Wood Composite Decks for Short-Span Bridges (#3558)	6	Cancelled
3575	Low Water Stream Crossing Alert System (#3575)	6	Cancelled

Motion to Approve by T. Roll 2nd by J. Hauber
Motion carried with 12, 0, 0

7. Additional Funding Request: TR-783, “Use of Organosilanes to Mitigate the Impacts of Freeze-Thaw Damage to the Granular Roadways in Iowa”, \$25,000, (15 min)

Motion to Approve by W. Weiss 2nd by R. Koester
Motion carried with 10, 0, 2

8. New Business

Discussion in person meeting. IHRB members would like to return to full in person meetings. V. Goetz will explore the options to hold meetings in different locations of the state, as well as suitability for alternating fully remote options.

9. Adjourn

Motion to Approve by T. Roll 2nd by R. Knoeche
Motion carried with 12, 0, 0