

PERFORMANCE ENGINEERED MIXTURES (PEM) FOR CONCRETE PAVEMENTS

*DELIVERING CONCRETE TO
SURVIVE THE ENVIRONMENT*

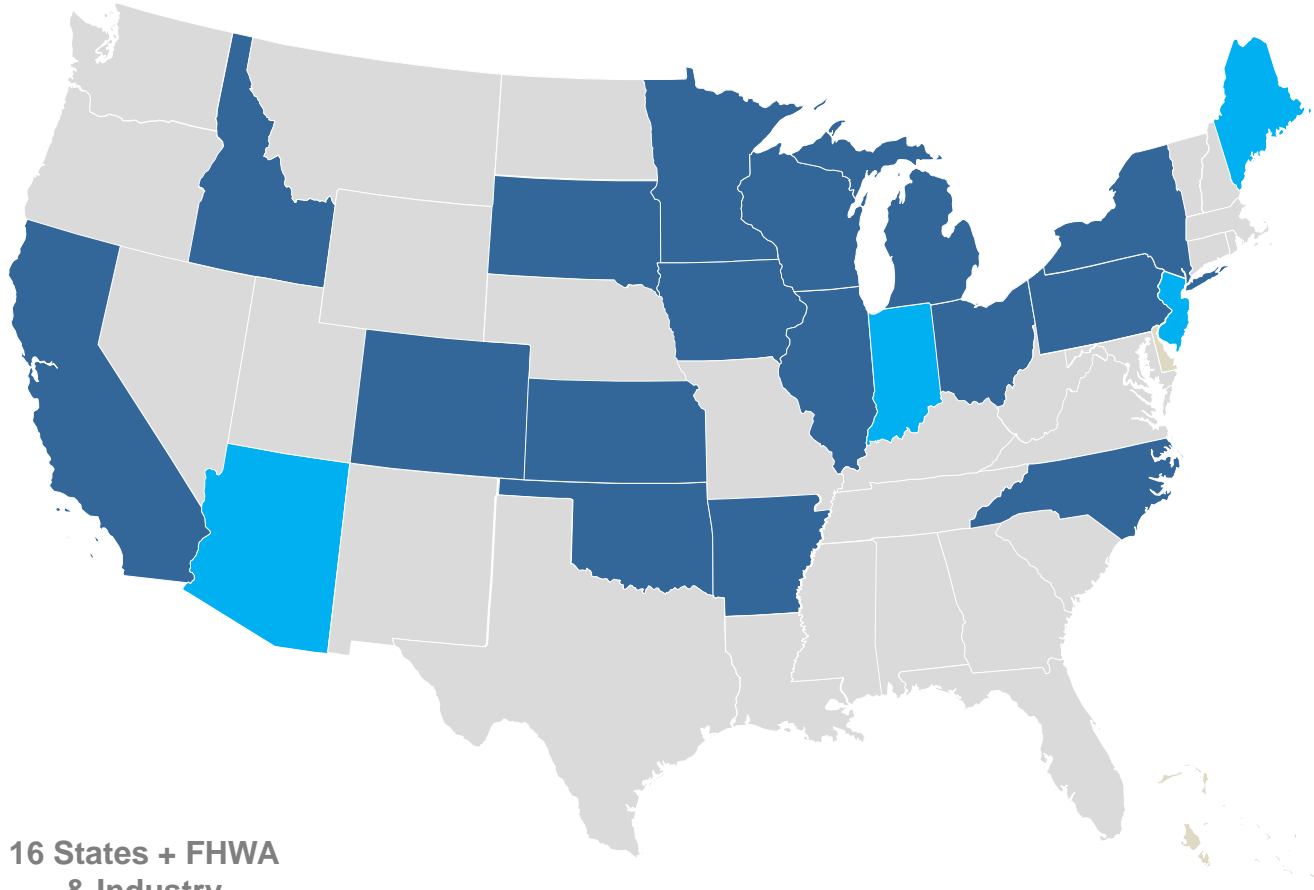
National Concrete Pavement
Technology Center



IOWA STATE UNIVERSITY
Institute for Transportation



PEM Pooled Fund Initiative TPF-5(368)



16 States + FHWA
& Industry
(July 2018)

Delivering concrete to survive the environment

A MODERNIZED SPECIFICATION

- ✓ Require the things that matter
- ✓ Measure them at the right time

- ✓ Develop test methods
- ✓ Develop “Guide Specification” (AASHTO’s PP-84)
- ✓ Develop tools to proportion mixtures

- ✓ Conduct shadow evaluations

- ✓ Later
 - Guide/monitor pilot projects
 - Develop PWL models
 - Guide in Q/C programs



PROTOCOL FOR PEM SHADOW PROJECTS

- DOT executive briefing
- Specification review
- Workshop for DOT office staff
- Construction, demonstrate tests, collect data, train field staff
- Review data and report findings/recommendations
- Ongoing data collection/shadow testing
- Data processing and storage
- Ongoing specification support
- Quality control plan guidance (w/FHWA)
- See PEM on the cptech.org website



PEM ACTIVITY 2018

- MCL/PEM Open House/Demo in CO (May), MN (July) and IA (August)
- Comparative Testing – SD/CP Tech – September 2018
- Demo/Open House(s) in PA - TBD
- FHWA Incentive Program Participation – MN, IA, IL, NC, PA, NY
- PP-84 Guide Specification Update 2019
- Test Refinement/Development
- Equipment Loan Program from FHWA
- Shadow testing and data collection
- Industry Collaboration(ACPA-PCA-NRMCA-SCC)

