In 2019, looking to upgrade its specification and reduce costs and traffic delays, the California Department of Transportation (Caltrans) turned to the FHWA’s Mobile Concrete Technology Center (MCTC) for pavement specification solutions. That summer, MCTC was mobilized to test project-produced concrete in two locations, as well as review the specification and identify areas for improvement.

MCTC IN ACTION

Caltrans, working together with industry, adopted MCTC’s recommendations for specification changes. Caltrans officials documented a savings of $9.4 million on the very first project utilizing the new specification.

Action items that led to these changes:

- Responded to Caltrans request for assistance improving their concrete specification and practices.
- Jointly identified opening times for concrete pavements as an opportunity for improvement.
- Developed and carried out a site visit and testing program to support specification changes.
- Provided Caltrans and their industry counterparts with suggestions for a new opening to traffic specification.
- MCTC specification suggestions were accepted and immediately used on a project.

“FHWA’s MCTC Program has been extremely helpful in deploying new and innovative concrete pavement technologies in California, as they have helped collecting data and demonstrating nationwide best practices. They have been crucial to numerous recent improvements to our concrete pavement specifications. We appreciate the MCTC Program’s strong support and technical assistance on these recent and future improvements to our specifications.”

– Dulce Rufino Feldman
Senior Transportation Engineer, Caltrans

THE MCTC IS AVAILABLE TO COME TO YOUR PROJECT.

VISIT OUR WEBSITE: www.fhwa.dot.gov/mctc
Industry technicians and California transportation officials were able to improve concrete construction and testing practices with the assistance of the MCTC. The MCTC has proven its ability to create value, advance science, and work with State Departments of Transportation. The MCTC’s efforts in California illustrate the value of its engagement with stakeholders to deploy technologies and improve concrete infrastructure.

**MCTC EDUCATION IN CALIFORNIA**

2. Fontana: Open House, June 2019; QA Workshop, Feb. 2020
3. Los Angeles: I-5 Field Visit, June 2019
4. Kramer Junction: RTE 58 Field Visit and Open House, July 2019
5. San Diego: Dowel Detection Virtual Training, Jan. 2021

**ADDITIONAL MCTC IMPACTS IN CALIFORNIA**

- Technical recommendations incorporated into Caltran’s specifications include:
  - Contractor option for using maturity to determine opening to traffic strength.
  - Acceptance based on compressive strength in lieu of flexural strength only.
  - Addition of unit weight testing to control charts.
  - Performance-based language to address random pavement cracks.
- Targeted training efforts on Performance-Engineered Mixtures implementation.

“Our pavement engineers and construction professionals are eager to find exceptional knowledge, education, and leadership that will help them pursue innovations and improvements on their pavement projects. The MCTC team delivers exactly that.”

– Charles Stuart  
Southwest Concrete Pavement Association

www.fhwa.dot.gov/mctc