

**Geotechnical/  
Structures****NOVEMBER 2024****Project Title:**Technology Transfer Concrete  
Consortium II [TPF-5(437)]**Task Number:** 2746**Start Date:** January 1, 2015**Completion Date:**

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## Technology Transfer Concrete Consortium, Phase II [TPF-5(437)]

This pooled-fund study aims at identifying and examining new concrete pavement research initiatives to foster new technologies and practices.

### WHAT IS THE NEED?

State departments of transportation (DOTs) are challenged to design and build longer-life concrete pavements which provide the greatest economic value over the long term for taxpayers and end users. One of the strategies for achieving longer-life pavements is to use innovative materials and construction optimization technologies and practices. Led by Iowa DOT, experts from state DOTs, Federal Highway Administration (FHWA), academia and industry will collaborate to identify and examine new concrete pavement research initiatives to foster new technologies and practices.

### WHAT ARE WE DOING?

The objectives of this pooled-fund study include:

- Identifying and guiding the development and funding of technology transfer materials such as technical brief summaries, web-based courses, and training materials from research activities
- Publishing Moving Advancements into Practice (MAP) Briefs on a quarterly basis
- Providing research ideas to funding agencies
- Identifying and instigate needed research projects
- Including current activities and deliverables of this study on the CP Tech Center website
- Maintaining the pooled fund project website with current activities and deliverables
- Maintaining the Technology Transfer Concrete Consortium (TTCC) pooled fund listserv: a forum for state representatives to post questions to the other state representatives and hear how similar problems or situations have been mitigated



DRISI provides solutions and knowledge that improves California's transportation system.

- Tracking TTCC listserv posted problems and discussions and categorize them for inclusion in a library on the project website
- Developing research problems statements for possible pooled fund projects to address research needs identified by member state representatives
- Acting as a technology exchange forum for the participating entities
- Contributing to a technology transfer newsletter on concrete pavement research activities every six months
- Submitting electronic quarterly reports following lead state guidelines. Pooled fund activities and budgets are discussed at the semi-annual meetings

## WHAT IS OUR GOAL?

The main goal of this pooled fund project are as follows:

- Identifying needed research projects
- Developing pooled fund initiatives
- Providing a forum for technology exchange between participants
- Developing and funding technology transfer materials
- Providing on-going communication of research needs faced by state agencies to the FHWA, industry, and CP Tech Center

## WHAT IS THE BENEFIT?

Caltrans significantly benefits from this project by integrating innovative materials and construction optimization technologies aimed at achieving longer-lasting concrete pavements. The collaboration with other state DOTs, FHWA, academia, and industry will allow Caltrans to stay at the forefront of technological advancements, enhancing the quality and durability of infrastructure. Additionally, through the technology

transfer initiatives, Caltrans gains access to cutting-edge research and practical applications, which will improve construction practices and user satisfaction, ultimately leading to more sustainable and cost-effective pavement solutions.

## WHAT IS THE PROGRESS TO DATE?

Significant deliverables have been continuously produced, including guides, technical briefs, case studies, and reports that document advancements. Additionally, the project continues to maintain active engagement through biannual meetings at the National Concrete Consortium (NC2), fostering a rich environment for exchanging ideas and practical outcomes. The Fall meeting of NC2 was held in conjunction with the 13th International Society for Concrete Pavements conference, "Innovative Paths to Lower Carbon in Concrete Pavements." The meeting was held in Minneapolis on August 25-29, 2024. This meeting focused on promoting sustainable practices and cutting-edge solutions in concrete pavement design, with an emphasis on reducing carbon emissions, enhancing durability, and adapting to climate change through innovative materials and construction methods. These efforts aim to collectively improve the sustainability, cost-efficiency, and user satisfaction of concrete pavements, setting a standard for future infrastructure projects.