

DRISI

CALTRANS DIVISION OF RESEARCH,
INNOVATION AND SYSTEM INFORMATION

Research Notes

Pavement

SEPTEMBER 2023

Project Title:
PAV TPF 1560: LTPP Forensic
Investigations, Stage 2

Task Number: 4184

Start Date: August 17, 2023

Completion Date: March 31,
2026

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PAV TPF 1560 TPF-5(500): LTPP Forensic Investigations, Stage 2

Construction and field data from cradle to death from California test sections will provide valuable insights into the factors contributing to the overall long-term pavement performance in California.

WHAT IS THE NEED?

Long-Term Pavement Performance (LTPP) is largest and longest pavement performance study in the whole world. As part of LTPP, Caltrans actively participated and built many LTPP test sections on Caltrans highway system. These test sections are/were monitored by LTPP program by a FHWA contractor over multiple years. Some of these sections have complete life cycle history with extensive construction and subsequent field test data. As these sections are decommissioned due to age or deterioration, it is very important to collect the final set of field data before phasing out the test section for data completeness.

WHAT ARE WE DOING?

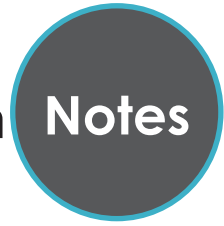
This is a continuation of TPF-5(532) effort, where it will perform more forensic evaluation of LTPP section. Final data collection including nondestructive testing and field cores from the test section itself will be collected and analyzed, as active test sections are phased out by Caltrans due to system maintenance and rehabilitation needs. These forensic evaluations will be done accordance with the guidelines provided in the Transportation Research Board's National Cooperative Highway Research Program (NCHRP) Report 747: "Guide for Conducting Forensic Investigations of Highway Pavements."

WHAT IS OUR GOAL?

The study goal is to evaluate the long-term pavement performance and the factors contributing to the performance.



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The end-product will be a report detailing the forensic evaluation and whether the LTPP database adequately explained the performance of the test sections.

WHAT IS THE BENEFIT?

With participation in the proposed pooled fund study, Caltrans will have invaluable long-term pavement performance data for analysis and future use/implementation.

WHAT IS THE PROGRESS TO DATE?

The project agreement was fully executed on Aug 17, 2023. Immediately after, the project team commenced work on project management activities, including:

- Preparation and execution of project safety and management plans.
- Conduct of project management activities, including contract administration, addition of NCE as subcontractor to the study and start of cost proposal preparation for first work order.
- Coordination of and preparation for project kick-off, which was held on Sept 27, 2023, as well as participation in the meeting and follow-up activities.

In addition, the project team began working on various test section selection activities, including a request for help from the LTPP program and its data collection services contractor with the identification of potential test sections for forensic evaluation.