

## Pavement

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**Project Title:**

Regional and New Materials in  
Standard Materials Library and  
Implementation of Design  
Guidance 2023/26

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## Regional and New Materials in Standard Materials Library and Implementation of Design Guidance 2023/26

Testing and adding more materials in the California Department of Transportation's (Caltrans) Mechanistic-Empirical (ME) standard materials library.

### WHAT IS THE NEED?

The requirement for this task order arises from the dynamic nature of pavement design and the continuous evolution of materials and construction processes used by Caltrans. The mechanistic-empirical (M-E) method, implemented through the CalME program, allows for efficient adaptation to new materials, construction techniques, and ensures continuous improvement of the Standard Materials Library. The task is essential for staying up to date, accommodating changes, and providing designers with updated guidance for flexible pavement projects.

### WHAT ARE WE DOING?

This task involves expanding the CalME Standard Materials Library to enhance flexible pavement design in California. This task builds on the work already completed in previous contracts and will continue to identify and fill the remaining gaps.

This task includes the following subtasks:

- Identification of gaps in the current CalME Standard Materials Library
- Materials sampling and testing
- Update the Standard Materials Library
- Maintenance of test tracking system
- Developing design guidance



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## WHAT IS OUR GOAL?

The goal of this task order is to expand and improve the CalME Standard Materials Library, specifically focusing on flexible pavement design in California. The main objective is to provide comprehensive and up-to-date information for pavement designers, enabling them to make informed decisions about selecting the most suitable materials for flexible pavement projects. Ultimately, the goal is to contribute to the ongoing evolution and efficiency of pavement design practices in alignment with Caltrans' mission.

## WHAT IS THE BENEFIT?

This task order brings significant advantages to Caltrans by improving adaptability, efficiency, and performance in flexible pavement design. Through the expansion and update of the CalME Standard Materials Library, the agency gains access to up-to-date and comprehensive data. This not only facilitates informed decision-making but also results in cost savings and allows the integration of innovative materials and construction practices.

## WHAT IS THE PROGRESS TO DATE?

The research team has made the following progress to date:

- Priorities were confirmed with Caltrans.
- Sampled two additional mixes, bringing the total to three, and testing of the newly sampled materials is ongoing.
- Developed a sampling and testing plan to assess the as-built stiffness of recycled materials and monitor changes over time.
- Suspended geogrid-related work following discussions with Caltrans; initiated planning for field monitoring of lime- and cement-stabilized subgrade and subbase.
- Continued supporting lab operations, increased assistance with field testing, and progressed on the Application Programming Interface (API) development.

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