PPRC14 SPE PBS-C: Simplified Performance Based Specifications for AC Long Life

This research simplifies the asphalt mix design procedures and specification preparation for asphalt concrete (AC).

WHAT IS THE NEED?

Design and construct pavements with specifications that assure longer service lives.

WHAT WAS OUR GOAL?

Develop simplified asphalt mix design procedures and specification preparation processes for AC long life projects that are easier for contractors and districts to understand and communicate, but do not increase the risk of poor performance to Caltrans, and also of incorporating changes in mix design from the move to Superpave procedures.

Task objectives:
- Revise the mix design and specification processes.
- Evaluate the specifications on new and existing AC long life projects.
- Support Caltrans on implementation and training in the new procedures and specifications.
- Prepare a comprehensive final report summarizing project findings and recommendations.

WHAT DID WE DO?

- Propose and discuss revision to the mix design and specification process with Caltrans.
- Monitor of previous asphalt concrete long life project performances
- Conduct testing and develop performance related specification for Interstate 5 (I-5) Sacramento AC long life project.
WHAT WAS THE OUTCOME?

The outcome of the research includes the following:

• Improved performance testing procedure and a new material classification system.
• Third year field performance data for I-5 Red Bluff AC long life project.
• Construction specification for the I-5 Sacramento AC long life project.

WHAT IS THE BENEFIT?

The improved testing procedure allows shorter turn-around time and better scheduling. The new material classification allows for pre-qualification and shorten the material approval process. This helps contractor to better estimate project cost and bid accordingly. The field performance data verifies the effectiveness performance related specification. The construction specification for I-5 Sacramento AC Long Life project implements the research results and allows more industry partners to become more familiar with the new specification.