

REQUEST FOR APPROVAL

To: **Howard Levenson**
Deputy Director, Materials Management and Local Assistance Division

From: **Brenda Smyth**
Branch Chief, Statewide Technical and Analytical Resources Branch

Request Date: May 1, 2012

Decision Subject: Approval of Scope of Work and CSU Chico as Contractor for the Rubberized Hot Mix Asphalt Performance Models Contract (Tire Recycling Management Fund, FY 2011/12)

Action By: May 10, 2012

Summary of Request:

Staff requests the approval of the Scope of Work and California State University (CSU) Chico Research Foundation as Contractor for the Rubberized Hot Mix Asphalt Performance Models Contract.

Recommendation:

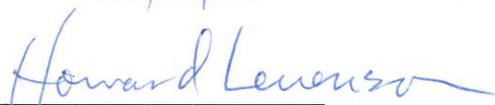
Staff recommends that CalRecycle enter into a contract with CSU Chico Research Foundation using FY 2011/12 funds allocated in the Research section of the Five Year Tire Plan (6th Edition) to complete the tasks outlined in the attached Scope of Work.

Deputy Director Action:

On the basis of the information and analysis in this Request for Approval and the findings set out below, I hereby approve the Scope of Work and CSU Chico Research Foundation as the Contractor for the Rubberized Hot Mix Asphalt Performance Models Contract in an amount not to exceed four hundred twenty-five thousand dollars (\$425,000) as shown in the table below.

Fund Source	Amount Available	Amount to Fund Item	Amount Remaining	Line Item
Tire Fund FY 2011/12	\$450,000	\$425,000	\$25,000	Research on Highway Construction Applications Using Waste Tires

Dated: 5/7/12



Howard Levenson
Deputy Director

Attachments: Scope of Work

Background Information, Analysis, and Findings:

Tight budgets have forced Caltrans and local agencies to implement strategies that make their pavements last longer (i.e., pavement preservation). This recent advent of pavement preservation has dramatically increased the use of pavement management systems (PMS) by Caltrans and local agencies. PMS are decision making tools that utilize the condition rating and properties of roadways coupled with the identification of paving strategies to determine the appropriate maintenance or rehabilitation activities for a particular pavement project. PMS programs in use today include performance models/curves (Figure 1) to predict future pavement condition and the improvement in pavement condition when maintenance and rehabilitation treatments are applied.

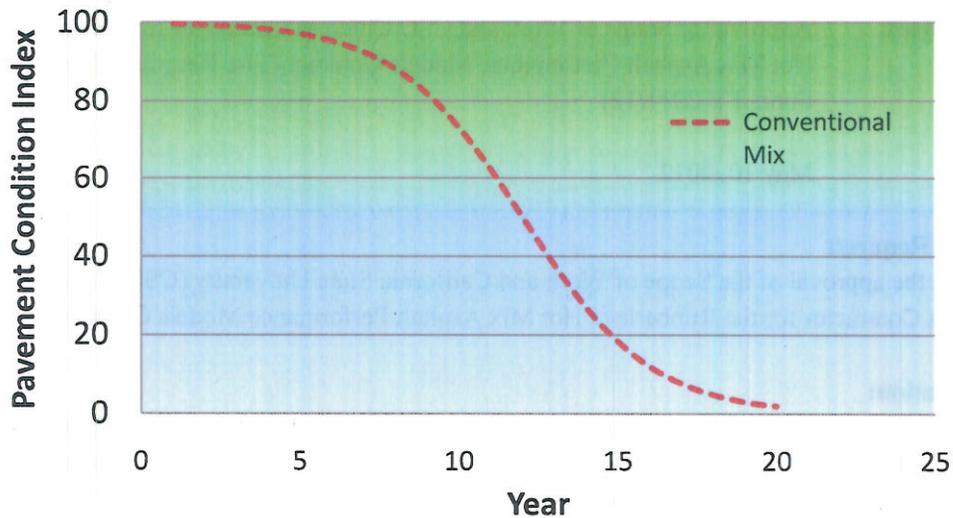


Figure 1. Typical performance curves for hot mix asphalt

The series of “performance curves” used in current PMS were originally based on data collected from pavements constructed in the 1980s. Since then, much has changed in the area of pavement technology in terms of new materials and improved performance. For instance, it is now well-documented that rubberized hot mix asphalt (RHMA) pavements (asphalt rubber and terminal blend) have improved resistance to reflective cracking, better durability, skid-resistance, and lower road noise, and thus perform better than conventional hot mixed asphalt (HMA) pavement. However, the pavement condition and performance data for RHMA were not available at the time the original performance curves were developed. CalRecycle anticipates that the performance curves of RHMA pavements will show that RHMA has superior longevity and performance in comparison with conventional HMA pavement, which should help increase the use of RHMA by Caltrans and local governments. This contract will lead to the development of RHMA performance curves for asphalt rubber, terminal blend and rubberized warm mix asphalt materials for use by state and local governments in their PMS.

CalRecycle will enter into an interagency agreement with CSU Chico to complete this research. Proposed funding for this contract will utilize \$425,000.00 from FY 2011/12 funds allocated to the Research Section of the 6th Edition of the Five Year Plan.