

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 10, 2011

Decision Subject: Scope of Work and Contractor for the Warm Mix Asphalt (WMA)
Technology Evaluation Contract (Tire Recycling Management Fund, FY
2010/11)

Action By: May 17, 2011

Summary of Request:

Warm Mix Asphalt (WMA) exhibits potential benefits for use with rubberized asphalt concrete (RAC), but additional evaluation of these benefits is needed. Staff requests the approval of the Scope of Work (SOW) and California Department of Transportation (Caltrans) as the Contractor for the Warm Mix Asphalt (WMA) Technology Evaluation Contract.

Recommendation:

Approve the Scope of Work and Caltrans as the contractor for the Warm Mix Asphalt (WMA) Technology Evaluation Contract in an amount not to exceed \$500,000 for Fiscal Year (FY) 2010/11.

Deputy Director Action:

On the basis of the information, analysis, and findings in this Request for Approval, I hereby approve the Scope of Work and the California Department of Transportation as the Contractor for the Warm Mix Asphalt Technology Evaluation Contract in an amount not to exceed five hundred thousand dollars (\$500,000), subject to availability of funds appropriated to this program.

Dated: 5/17/11



Howard Levenson
Deputy Director

Background Information, Analysis, and Findings

Warm Mix Asphalt (WMA) is a suite of several different technologies that greatly reduce the temperatures for production and construction of hot-mix asphalt (HMA). WMA has a lot of potential benefits for use with rubberized asphalt concrete (RAC) including: greater use of RAC due to extension of paving season, more night paving and longer hauls of material; worker health and safety via less fumes; potential increased pavement service life; reduced fuel consumption; reduced greenhouse gas emissions; and reduced emissions during RAC production and construction.

This Interagency Agreement (IAA) is part of a larger research program being conducted by Caltrans through the University of California Pavement Research Center (UCPRC) and is vital to answering some remaining questions regarding the use of WMA technology with RAC. Specifically, the tasks of this IAA will include: laboratory performance testing (rutting, cracking and moisture sensitivity) of gap-graded RAC mixes; evaluation of binder aging properties (RAC vs. conventional) to quantify potential effects on rutting and cracking performance; construction and testing of new open-graded RAC mix designs that have been developed to optimize sound reduction and permeability; and evaluation of emissions from RAC and WMA with RAC. It is anticipated that after the conclusion of the tasks of this IAA, Caltrans will develop and implement recommendations for use of WMA with RAC.

The \$500,000 for this contract (indicated in bold in the table below) will come from the \$1,000,000 TDA Civil Engineering Technical and Construction Management Support line item for FY 2010/11 in the Market Development Section in the current (5th Edition) Five-Year Tire Plan. The table below shows funding for all three contracts being supported by this line item.

Contract	Fund Source	Amount Available	Amount to Fund Item	Amount Remaining	Line Item (Index/PCA)
CSU Humboldt TDA Research Contract	Tire Fund FY 2010/11	\$1,000,000	\$230,000	\$770,000	TDA Civil Engineering Tech & Construction Mgmt support (7730/T5100)
LA County RAP in RHMA and Chip Seal Contract	Tire Fund FY 2010/11	\$770,000	\$270,000	\$500,000	TDA Civil Engineering Tech & Construction Mgmt support (7730/T5100)
Caltrans WMA Technology Evaluation	Tire Fund FY 2010/11	\$500,000	\$500,000	\$0	TDA Civil Engineering Tech & Construction Mgmt support (7730/T5100)