

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 17, 2011

Decision Subject: Scope Of Work And Contractor For The Use Of Reclaimed Asphalt Pavement in Rubberized Hot Mix Asphalt and Rubberized Chip Seal Contract (Tire Recycling Management Fund, FY 2010/11)

Action By: May 17, 2011

Summary of Request:

Staff requests the approval of the Scope of Work and Los Angeles County as Contractor for the Use of Reclaimed Asphalt Pavement in Rubberized Hot Mix Asphalt and Rubberized Chip Seal Contract.

Recommendation:

Approve the Scope of Work and Los Angeles County as the Contractor for the Use of Reclaimed Asphalt Pavement in Rubberized Hot Mix Asphalt and Rubberized Chip Seal Contract in an amount not to exceed \$270,000 for Fiscal Year (FY) 2010/11.

Deputy Director Action:

On the basis of the information and analysis in this Request for Approval and the findings set out above, I hereby approve the contract with Los Angeles County to evaluate the Use of Reclaimed Asphalt Pavement in Rubberized Hot Mix Asphalt and Rubberized Chip Seal in an amount not to exceed two hundred seventy thousand dollars (\$270,000), subject to availability of funds appropriated to this program.

Dated: 5/17/11

Howard Levenson

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Deputy Director

Background Information, Analysis, and Findings

This project has two primary objectives, both involving research on the use of reclaimed asphalt pavement (RAP) in different applications. The first objective concerns the fact that Rubberized Hot Mix Asphalt (RHMA-G, "wet process") specifications have not permitted the inclusion of reclaimed asphalt pavement (RAP). RAP is asphalt concrete pavement that has been removed, most commonly by cold milling, and stockpiled similar to an aggregate. More RAP is generated currently than can be used in new conventional asphalt concrete pavement. This project will analyze the use of RAP in RHMA through preparation of mix designs and placement of RHMA sections both with and without RAP. These sections will provide a comparison of performance over their lifecycle.

The second objective is to conduct research on the use of RAP as a cover aggregate on a chip seal. Hot-applied chip seals typically use screenings (high quality crushed rock) as cover aggregate. This rock is produced from virgin sources. In some areas, however, this rock is not readily available. In addition, the screenings must be pre-coated with paving asphalt and heated prior to delivery. RAP can be crushed and screened to produce screenings of the gradation for use on chip seals. This project will analyze the use of RAP as a cover aggregate on a chip seal using terminal blend binder. Since RAP is coated with residual paving asphalt, pre-coating and pre-heating of the aggregate will not be necessary. This project may potentially demonstrate that RAP can be used as cover aggregate on hot-applied chip seals, thus using a recycled rather than virgin material, and saving the material and energy resources consumed in pre-coating and pre-heating.

Los Angeles County is CalRecycle's Contractor for the RAC Technology Center because it is a strong local government advocate for the use of rubber in paving applications. It also has used RAC extensively and, as a result, has a good understanding of the benefits and the barriers that may hinder the future use of RAC. As a result of this RAC project experience, the County has also developed the expertise, infrastructure and resources needed to conduct this pilot study successfully.

The \$270,000 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.