

## CRUMB RUBBER MODIFIED ASPHALT CONCRETE IN OREGON Summary Report

Over the last nine years, the Oregon Department of Transportation (ODOT) has constructed 13 projects using crumb rubber modifiers (CRM) in asphalt concrete pavements using both the wet and dry processes. The dry process is where the rubber is added to the aggregate prior to mixing with hot asphalt. The wet process is where the rubber is first blended with the asphalt cement. Three of the projects included more than one type of crumb rubber modifier. All projects included a control section.

Research data has been collected on the majority of projects and five construction reports have been written detailing the results. State and federal legislation may require the use of recycled rubber in asphalt concrete, therefore, the Oregon Department of Transportation is interested in determining the most cost-effective crumb rubber modified asphalt concrete.

This recently published report includes a literature review on the use of crumb rubber modifiers in asphalt concrete pavement; a review on non-ODOT CRM paving projects constructed by Oregon counties and cities; and the Washington Department of Transportation. In addition, the report summarizes the data collected on all CRM hot mix asphalt concrete pavement projects constructed by ODOT. The ODOT information includes background, construction, cost, and performance data for each of the test and control sections. Finally, the future activities of the project are reviewed.

The short pavement history precludes selection of a process based on performance. The results of the study indicate that if a CRM process were to be selected today, pavements constructed with PBA-6GR would be the most economical in terms of initial cost/ton. The PBA-6GR is also very easy to use since the rubber modified binder is blended at the refinery and delivered to the job site ready for mixing with the aggregate. This process reduces the number of errors possible during construction since the rubber content and the mixing process are tightly controlled at the refinery. Additional testing of the PBA-6GR is necessary, to insure that a product that meets the ODOT specifications is consistently available.

Recently, the summary report for this research project was published. If you want additional information regarding this project or a copy of the report, please contact:

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