ASPHALT PAVEMENT NEWS

## Placer County Tries New Surface Sealer

By Roger Smith, CP² Center

Placer County's Department of Public Works hosted the trial of a new Tire Rubber Modified Surface Sealer (TRMSS) on July 23 on Kemper Road near Auburn. The project was coordinated by the County's Corinne Allen working with Wade Miller of the GuardTop Company.

The treatment involves the spray application of GuardTop's special clay-stabilized asphalt emulsion containing fully digested ground tire rubber. According to Miller, this fog seal process, called "surface sealing", has been in use in Arizona for over 10 years, but is rather new to California. Caltrans has used it as a flush coat on some large chip seal projects, including I-8 in San Diego, and they have also demonstrated its use as 'texture seal' (with aggregate) on US395 with near Bishop. One of the earliest adapters is the City of Santa Maria, now in its third season of TRMSS, as well as pilot projects with Madera County and City of San Jose.

Used on a conventional HMA surface, or as a flush coat on chip seals, it's intended to extend service life by providing increased protection against UV oxidation, while providing superior adhesion and retaining its black color. Its harder base asphalt is also reported to reduce tracking – an important aesthetic consideration. Each lane-mile of TRMSS contains 20-27 recycled tires.

Spray application of TRMSS

In Auburn, the product was placed on Kemper Road directly over painted striping, and temporary plastic lane markers were used. The application rate on the older chip sealed surface was 0.14 gal/sy. It's interesting to note that the liquid emulsion product is sprayed black – without the common brown-to-black color change. The distributor truck, from Talley Oil out of Madera, was modified with larger spray nozzles, which were easily cleaned with a water soak after use.

Asphalt emulsion products, being water based, rely on evaporation of the water element for drying /curing. With an air temp of 80F and a light breeze, the Auburn roadway was ready for traffic in less than 2 hours, drying to a uniform black matte color.

TRMSS cure stages (L at 20 min; C at 10 min; R at 5 min.)

According to the County's Corinne Allen, "This product shows promise as a pavement preservation tool. We like its look and the ease of application, and we'll be watching its performance with the possibility of adding it to our toolbox. We also like its 'green' aspect – the recycling of old tires. I really am looking at it as a tool to possibly extend the life of some of our chip seals, and as a cape seal type element in some of our more rural communities. The flexibility, drying time and lack of shedding make it a very attractive alternative."

GuardTop recommends this surface sealer as a pavement 'preservation' tool to be applied on pavement still in good condition.

As GuardTop expands their pavement services, their other newer products include a less visible crack sealer product for improved aesthetics, and a "cool" (lighter colored) pavement sealcoat product.

For more information go to: *www.guardtop.com*

## GRCS Test Sections In Santa Barbara County

By Ray Myers (AIA)

Geosynthetic Reinforced Chip Seals (GRCS) consist of a double chip seal over an interlayer. GRCS systems have been installed for over 30 years with great success in providing a new wearing course, a waterproofing interlayer membrane and the mitigation of crack propagation. In the early installations, and for many years following, the interlayer used was a 4.1 oz/sy polypropylene paving fabric. In recent years, however, geosynthetic manufacturers have developed a new class of interlayers designated paving mats. The paving mat group of products is made of a fiberglass-polyester blend. The group was developed to be higher in tensile strength and lower in shear than polypropylene, hence more millable and recyclable. Several recent GRCS projects have been accomplished with paving mats.

The Asphalt Interlayer Association (AIA) wished to quantify the relative benefit of each of the products it represents, so organized a test project with the cooperation of the Santa Barbara County Department of Public Works on San Leandro Lane in Santa Barbara.

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