

Disclaimer

The contents of this guide reflect the views of the authors who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This guide does not constitute a standard, specification, or regulation.

CHAPTER 12 INTERLAYERS

12.1 OVERVIEW

Pavement interlayers are materials or combinations of materials that can be placed within a pavement system during new construction, rehabilitation or preservation in conjunction with an overlay or surface treatment to extend pavement service life. Most interlayers can mitigate reflective cracking, reduce amount of surface water into the pavement structure, and may allow a reduction in thickness of the proposed overlay.

The purpose of interlayers in general is to lower stress or strain in other pavement layers or to improve the ride with the addition of a surface layer is used or to provide a moisture barrier. If these goals can be accomplished, the new pavement surface may last longer, provide a smoother ride throughout the life of the pavement, and require less maintenance in the future. This may provide a cost effective treatment strategy for pavement preservation.

This chapter provides general guidelines on the use of interlayers. It should be noted that factors such as traffic volume, structural section and user delays should be taken into account when considering interlayers. There are many types of interlayers. The manufacturers of these materials have conducted research and have documentation on the various interlayers. It is recommended that manufacturer representatives be consulted if there are questions in using their products.

12.2 TYPES OF INTERLAYERS

Several types of interlayers have been used in California. Some of them are used in conjunction with rehabilitation and some for maintenance applications. The types of interlayers used by agencies include:

Paving Fabric: A non-woven geotextile fabric (Figure 12-1) that is saturated with asphalt cement and placed with an overlay or chip seal. Paving fabric followed by a chip seal has also been used as a stand alone application.

Paving Mat - A non-woven fiberglass/polyester hybrid material (Figure 12-2) that is saturated with asphalt cement and placed prior to a thin asphalt concrete overlay.

Paving Grids (Figure 12-3) – A material formed into a grid by a regular network of integrally connected elements with openings greater than or equal to ½” minimum to allow interlocking with the surrounding asphalt concrete materials. This material is applied either with a self-adhesive or with a lightweight scrim (a non-woven material <1.2 oz/sy attached to the grid) and/or tack application and is placed with an overlay.