



Don Siegelman
Governor

ALABAMA DEPARTMENT OF TRANSPORTATION

1409 Coliseum Boulevard, Montgomery, Alabama 36130-3050



G. M. Roberts
Transportation Director

July 31, 2000

MATERIALS AND TESTS TECHNICAL ADVISORY 2-00

TO: Division Engineers

FROM: Larry Lockett
Materials and Tests Engineer

RE: Prime Treatments on Granular Base Courses

Effective upon receipt, this office recommends the following guidelines to be used for prime treatments on granular base courses:

A prime coat (Bituminous Surface Treatment "A") should be used on all granular base layers, especially crushed aggregate base, prior to the placement of a bituminous plant mix layer or a permeable asphalt treated base layer on top of the granular base or crushed aggregate base layer. The use of a geotextile separator layer beneath a permeable asphalt treated base will be discontinued. Before a permeable asphalt treated base layer can be placed on the prime coat, the prime coat must be inspected to check for any discontinuities (cracks, tears, or breaks) in the prime coat application. If any discontinuities in the prime coat are found to exist, they must be repaired prior to the placement of the permeable asphalt treated base layer.

This guideline is being recommended after an informal survey of other state highway agencies regarding their procedures on the use of prime treatments on crushed aggregate bases, and the use of geotextile separator fabrics. The informal survey was conducted because of the increased usage of sandstone and granite as crushed aggregate base material in Alabama. It is felt that these materials may be more permeable than the limestone that has been the primary source for our crushed aggregate bases. If a geotextile separator fabric is used on top of sandstone or granite bases, the possibility that infiltrated water may saturate these materials is greater than with a limestone base. The best way to insure that our granular bases do not become saturated from infiltrated water is to place a prime treatment on all granular bases. The prime treatment will act as a moisture barrier for infiltrated water into the pavement system and will also act as a separator layer to keep fines from contaminating a permeable base being placed on a granular layer.

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It should be noted that pavement drainage systems are intended to quickly drain infiltrated water from a pavement system. They are not designed or intended to correct groundwater problems.

This office will be initiating a Guidelines for Operation to effect the above recommendation.

LL/PLA/SWG/swg

cc: Mr. Terry L. McDuffie
Mr. Don Arkle
Mr. Frank Courson
Division Construction Engineers
Division Materials Engineers
FHWA
File