



Chattanooga TN, July 10, 2002

Mr. David Cullivan
Project Engineer

City of Sacramento 5730 24th, Building 1
Sacramento, Ca.95822

Reference: Paving fabric used over milled surfaces.

Dear Mr. Cullivan.

It is my understanding that you have some concerns about the use of paving fabrics directly over milled surfaces.

SI Geosolutions has no problem recommending or endorsing the use of Pave Dry® paving fabric over milled surfaces because of the great benefits that this practice provides to the road structure. Paving fabrics correctly installed have been proven to provide long lasting benefits such as acting as a moisture barrier, extending the life of the pavement and reducing the reflection from crack, old and stressed pavements.

We understand the concerns that the city of Sacramento have, but we will continue to offer all the possible help that SI Geosolutions can provide to promote and help to understand the use of paving fabrics over milled surfaces in your projects.

The standard practice for the use of paving fabrics over milled surfaces can require some special considerations as follow:

The surface has to be completely dry and free of debris. This is required to eliminate the risk of delamination when sand or dust from the cuttings attaches

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to the tack coat and prevents the correct bond between the old milled pavement, the paving fabric and the new asphalt concrete layer.

The recommended tack coat for this application is liquid asphalt cement since asphalt emulsions have the tendency to accumulate in the bottom of the ridges of the milled surface making the application not uniform, increasing the time of curing and increasing the risk of retention of the solvents. All this will create uneven sections and incorrect adhesion of the paving fabric to the old pavement increase the potential risk for delamination failure.

It is important to adjust the application rate of the tack coat based on the characteristics of the milled surface and porosity of the pavement.

In the case that the milled surface has near vertical grooves, the correct process for the installation is to place a fine-grained leveling course. One reasons for this practice is the likelihood of nonuniform coverage of the tack coat on the vertical sides of the grooves.

Another reason is that although the fabric has a minimum elongation at failure of 50%, with grooves almost vertical the fabric can be stretched far over their maximum elongation which increases the possibility to tear or create inadequate bonding between layers just because of the lack or intimate contact with the lower milled surface.

These comments are also valid for cracks incorrectly or deficiently sealed, sharp objects or changes in level (such is the case over Portland cement concrete slabs), construction joints, etc.

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The fabric should be placed and broomed or rolled in place (most of the automatic lay down machines do this process automatically) with the fabric conforming over the milled surface.

The milling process in conjunction with the system of paving fabric and liquid asphalt helps to close the micro-cracking generated by the process of milling as well as being beneficial to the structure as a moisture barrier and stress relief layer.

In closing, by following simple considerations and good practices in the process of installing paving fabrics over milled surfaces this practice can be incorporated in the standard process of rehabilitating paving structures. SI Geosolutions can provide all the assistance required in your projects to achieve a successful and economic result.

If there are any questions please contact me at your best convenience.

Best regards,

A handwritten signature in black ink that reads 'ROBERT LOZANO'.

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