







ADHESIVE BONDING

# **Case Study**

application

**Paving** 

location product

Ada County, ID Mirafi® MPV400 job owner engineer contractor Ada County Highway District Ada County Idaho Sand and Gravel

TenCate™ develops and produces materials that function to increase performance, reduce costs and deliver measurable results by working with our customers to provide advanced solutions.

#### THE CHALLENGE

Ada County is the home of Boise, the capital and largest city in the State of Idaho. The Boise area of Ada County has seen tremendous population growth over the years. With this increased population, has come increased vehicle travel on both residential and commercial area roads. The existing pavement on these roads increasingly deteriorates year after year as growing traffic patterns emerge. The county of Ada needed a cost effective solution to repair these roadways and "stretch their repair budgets further". With the ever increasing cost of asphalt, the county looked for a cost effective solution to extend the pavement life and repair the existing roadway surfaces - all while saving precious dollars.

### THE DESIGN

Each year the Ada County Highway District selects various roadways to be improved and maintained, in an attempt to remain a step ahead of the rapidly growing traffic in the Boise community. In 2008, the District chose to utilize Mirafi® MPV400 paving fabric on an over 10 mile stretch of roadway in and around Boise that also included 6 major intersections. Mirafi® MPV 400 is a nonwoven asphalt overlay fabric that provides a stress relief interlayer which inhibits the growth of reflective cracks. Mirafi® MPV400 provides improved fatigue resistance while preventing surface water into the subgrade. A typical highway rehabilitation in the Boise area was to grind 4" of the distressed pavement surface and replace it with 4" of new AC. Mirafi® MPV400 was chosen because it could provide similar performance to the 4" overlay with only a 2" overlay, cutting rehabilitation costs dramatically.









#### THE CONSTRUCTION

Local contractor, Idaho Sand and Gravel has a great deal of experience performing overlays. Once proper traffic control was established, the upper two inches of the existing street sections were rotomilled down. A CSS1 tack coat was applied to the newly ground asphalt surface. The Mirafi® MPV paving fabric was then rolled out over the tack coat. Finally a new two inch thick layer of plant mix pavement was applied over the Mirafi® MPV400.

As a result of heavy traffic flows, the majority of work was performed at night making construction much more difficult. Familiarity with the project and the ease of working with Mirafi® MPV400 all contributed to a successful project.

## THE PERFORMANCE

Mirafi® MPV400 was proven to be a great product to complete the project effectively. Mirafi® MPV400 is produced from polypropylene staple fibers with a unique stress-strain curve to provide easy installation around curves without wrinkles, while maintaining strength. As a result of its easy installation, long history of successful projects prolonging the effects of reflective cracking, and extensive overlay testing; Mirafi® MPV was used over the entirety of the project. Mirafi® MPV400 will be tested over time as the traffic flow of each road will only increase as Boise continues it's steady growth. The project was undoubtedly a success and when the bid time nears again next year, Mirafi® MPV paving fabric will undoubtedly be the paving fabric of choice.

Job supplied by: Specialty Construction Supply 12450 Franklin Road Boise, ID 83709 Phone: 208-322-6800





TenCate<sup>™</sup> Geosynthetics North America assumes no liability for the accuracy or completeness of this information or for the ultimate use by the purchaser. TenCate<sup>™</sup> Geosynthetics North America disclaims any and all express, implied, or statutory standards, warranties or guarantees, including without limitation any implied warranty as to merchantability or fitness for a particular purpose or arising from a course of dealing or usage of trade as to any equipment, materials, or information furnished herewith. This document should not be construed as engineering advice.

Mirafi® is a registered trademark of TenCate™ Geosynthetics North America.

© 2010 TenCate Geosynthetics North America









