

- Quarry products;
- Skid resistance;
- Construction and maintenance practices; and,
- Design of treatments.

Action statements were prepared by the Workshop Steering Committee for issues that were identified by attendees as being the most important. A large proportion of the proposed research is already included in the existing approved research program, or can be fitted in with the existing approved research. The Austroads Bituminous Surfacing Research Reference Group (BSRRG) will prepare project proposals to cover

some of the issues that are not currently being addressed. Other issues that are strategic in nature, or are related to areas outside bituminous surfacings, will be referred to the Austroads Pavement Technology Review Panel.

Queensland Main Roads will be holding a Sprayed Sealing Workshop in May 2005 to further define issues relevant to Queensland roads. The aims of the workshop are to improve the rate of success of sprayed seals, identify issues that may require research, and suggest improvements to the national sprayed seal design method. The workshop will be held on 10 May 2005.



Narrow Pavements and Areas of Trafficking



Bonding and Embedment Problems in New Seal

New Sprayed Seal Design Method

A new Austroads publication, "Selection and Design of Sprayed Seal Surfacings," is currently being developed. The document is based on the Austroads Provisional Seal Design (Revision 2000) Method. It has been considerably

extended and now includes selection criteria for seals, and selection and design criteria for primes and primerseals. It is expected that Austroads will release the new method in June 2005.



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<http://www.aapa.asn.au/docs/queensland.html>
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Strategic Alliance NEWS LETTER

Developing superior flexible pavements



Issue 1 of 2005

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Articles in this and prior newsletters available
on the web site at
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Update on SMA Trials

The activities being guided by the QDMR/AAPA Strategic Alliance project "Trial demonstration of a more durable SMA in Queensland" are well under way.

Five asphalt contractors are currently trialling mixes designed around a new SMA specification. The primary goal of the trials is to develop and test a modified SMA specification, including manufacture and paving processes, to provide a workable and durable (impermeable & non rutting) surfacing.

The trials focus on 14 mm SMA mixes, as these are the most common mixes currently in use. Changes to the existing SMA specification have been made by drawing on the USA experience, and also as a result of research into fillers undertaken by the Road Surfacing Section of Main Roads. The following broad changes have been made:

- gradation (refer figure);
- binder type;
- filler requirements;
- mix components & volumetrics;
- density requirements;



SMA Production and Placement Trials

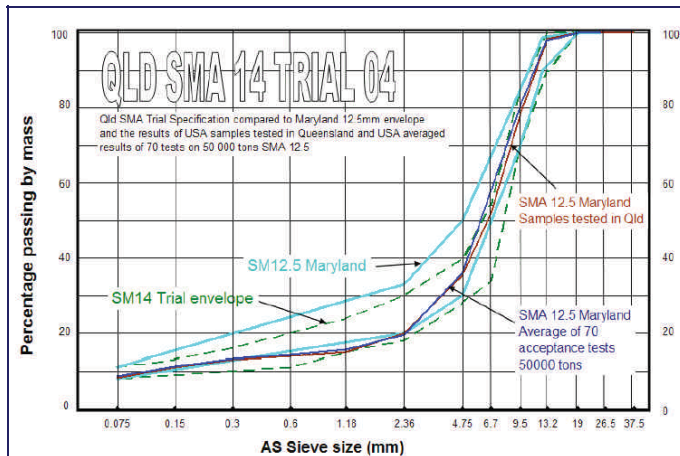
- permeability testing (to be recorded); and
- mix approval, based on laboratory testing of mix design, and a 1000 m² production and placement trial.

All five contractors have undertaken a production and placement trial (1000m²). Based on the results of these trials, further refinements are being made before full mix approval is granted, and before the full scale production trials begin. The full scale production trials each consist of 3 nights production, with

an average of approximately 400 tonnes per night of mix to be laid as a 45 mm overlay.

A supplementary specification was written which included the additional testing requirements for the trials during both the production and placement trial, and the full scale trial.

It is anticipated that the full scale trials will commence in late April 2005 and be completed in May 2005.



Spray Seal Contractors Registration System

Spray seals represent about 25,000 kilometres of the Queensland Main Roads network. Maintaining these seals and applying new seals on sections of the unsealed road network represents \$70M to \$80M per annum.

The current system of delivery for spray seals requires contractors to use a QDMR

certified bitumen sprayer. Currently, there are no other contractual requirements to be satisfied. Given these limited requirements, and as the Department has moved away from direct supervision, increasing problems have been observed.

In 2005/06 it is proposed to develop a

new spray seal registration system modelled on the current Asphalt Registration System. Registered spray sealing contractors will be referred to as "Approved Spray Seal Contractors."

The system for registration of approved spray seal contractors would be defined in accordance with the framework for establishing and maintaining registers of approved specialist suppliers in Appendix H of Volume 3 (Major Works Prequalification System) of the Main Roads Project Delivery System. The Approved Spray Seal Contractors Registration System would include the following criteria for suitability of applicants:

- Expertise of staff;
- Management systems;

- Proven capability;
- Suitability of equipment/surface preparation equipment;
- Approved product listings.

The system will be developed by QDMR in consultation with industry through the established QDMR/AAPA Strategic Alliance.

The anticipated benefits the system will provide include:

- Improved consistency of contractors;
- Reduced contract management requirements;
- Improved delivery of spray seals; and,
- Reduced failures caused by inexperienced contractors.

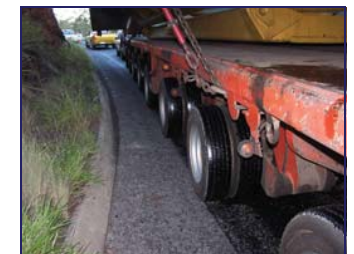
Austrroads National Sprayed Sealing Workshop

To assist with the development of a practically focused Austrroads research program in the sprayed sealing area, a workshop was held at ARRB on 9th and 10th February 2005. The workshop was attended by 71 delegates from all over Australia and New Zealand, covering interest groups including CEO's, regional and network managers, operational staff and technical specialists.

The key issues identified during the workshop were:

- Workplace safety and traffic management;
- National uniformity in design, specification and testing;
- Expertise and capability;

- Seal/pavement interaction;
- Seal performance data;
- Improving business and communication;
- Gains from new technology;
- Binder behaviour and performance;



Heavy Vehicle Interaction with Sprayed Seals