

An aerial photograph of a road construction site. A white truck is parked on the road, and two workers in orange safety gear are visible. The road has yellow and white lane markings. The background shows green grass and trees.

HIWAY

HIWAY Masters Range

MASTERSCRIM

Restoring skid resistance for safer journeys

HIWAY Masters Range

Drawing on nearly 40 years experience, the **HIWAY Masters Range** sets a new, environmentally-conscious standard for pavement performance. With an emphasis on innovation and durability, the range comprises a collection of services and solutions that put HIWAY's extensive research and development into use. Alongside best practice methodologies, HIWAY now offer carbon-conscious solutions that work better, for less.

We work closely with our customers, in both the private and public sectors, to understand their unique needs. Gaining a deep understanding around the roadblocks of traditional infrastructure projects, maintenance techniques and solutions, the **HIWAY Masters Range** is here to set a new global standard, enabling improved critical outcomes and quality of life, and a better future for the customers and communities we serve.



HIWAY. Working together for better

Our roads, railways and runways connect us. They connect us to our great outdoors and our way of life. Across great distances they sustain families, friendship and businesses – whole communities – and for nearly four decades, HIWAY has stood at the forefront of pavement infrastructure delivery, recycling and maintenance innovation, offering cutting-edge solutions that place an emphasis on community and the environment.

Specialising in providing world-class sustainable pavements across Australasia, our expert team of 250+ are dedicated to improving decarbonisation opportunities, optimising time efficiency, and minimising reliance on new virgin materials by maximising reuse and recycling. With an unwavering and steadfast commitment to research and development, alongside our highly valued research partners, our innovative **HIWAY Masters Range** is data-driven and evidence-based, allowing us to develop world-first products that significantly outperform traditional alternatives.

Our communities deserve it.
Our environment depends on it.



HIWAY MASTERSCRIM

Retexturing roads for a safer, cleaner commute

Flushed pavements are more than just an eyesore. We are all familiar with those smooth black wheeltrack strips that pose safety risks for drivers, particularly in wet conditions, where reduced skid resistance can lead to accidents.

HIWAY MasterScrim is an innovative surface retexturing solution that restores safety and performance without compromising pavement integrity.

Where traditional treatments, such as water cutting, remove binder and risk damage to the waterproofing properties and its intended pavement life, **HIWAY MasterScrim** maintains the integrity of the road. It retains and utilises existing surface binder, preserving the pavement's moisture barrier and eliminating the environmental waste as no bitumen is removed. All basecourse aggregates are moisture sensitive and prone to failure if exposed to water. By minimising water ingress, **HIWAY MasterScrim** ensures measurable improvements in pavement performance.

Offering solutions for an array of applications including pre-seal flushing correction, texture improvement and accelerated surface dryback before sealing. **HIWAY MasterScrim** is a proven solution for promoting, low-impact road maintenance, supporting safer journeys and sustainable infrastructure.

How it works

HIWAY MasterScrim is an innovative, on-site treatment process designed specifically for flushed wearing courses, most notably sprayed seals or chipseals. Where traditional approaches may strip away valuable free binder, compromising the integrity of the surface, **HIWAY MasterScrim** instead restores chipseal layer stability. Using a calibrated combination of targeted surface heating and sealing chip supplementation, **HIWAY MasterScrim** reconditions the pavement's surface layer, adding back lost texture.

The process begins by gently warming the flushed area, temporarily adjusting the viscosity of the binder without burning, addition of dilutants, or displacement. At this optimal state, a pre-selected and temperature conditioned sealing chip is introduced at a precise application rate. The chip embeds seamlessly into the reactivated surface and is then compacted using rollers. The process can be performed selectively on single or dual wheel paths or across the full lane width, targeting only the sections that require treatment.

The result is a corrected binder-to-aggregate ratio that restores the surface's macrotexture and skid resistance – bringing the seal back to its intended design profile. **HIWAY MasterScrim** is an ideal, sustainable solution, with reduced downtime and no waste generated during treatment as well as providing a longer-lasting surface that can be trafficked immediately.



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The benefits

Whether addressing isolated wheel tracks or fully flushed pavements, **HIWAY MasterScrim** adapts to site-specific needs. Its dual-track operation allows for simultaneous treatment, accelerating project delivery and minimising disruptions.

Engineered to outperform traditional methods, **HIWAY MasterScrim** can be delivered consistently year-round with fewer environmental and operational constraints. It preserves the pavement's waterproofing by maintaining free binder volume, extending surface longevity without compromising structural integrity. Customisable to each environment, **HIWAY MasterScrim** stands out as a sustainable, high-performance solution tailored to the unique demands of modern road networks.



Sustainability and the climate

As climate conditions across Australia and New Zealand grow increasingly unpredictable, our infrastructure must evolve. We know roads need to withstand more than just carrying vehicles, they must also endure the environment around them. **HIWAY MasterScrim** is engineered with the future in mind.

By restoring flushed pavements without removing free binder, **HIWAY MasterScrim** avoids the generation and challenges of hydrocarbon waste entirely. No material is stripped, no contaminated by-product is produced and no landfill dumping is required, making it a cleaner, more responsible treatment method.

This in-situ approach supports the long-term durability of the road surface.

By preserving the original waterproofing layer, **HIWAY MasterScrim** reduces the risk of water ingress and subsequent structural degradation – extending the life of the pavement and reducing the frequency of intervention or costly remediation treatments such as undercuts, mill and fills or stabilised pavement repairs.

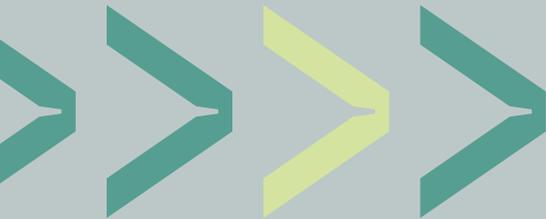
Fewer treatments mean less resource use, less disruption and lower carbon impact over the asset's lifecycle. For communities committed to sustainable practice, **HIWAY MasterScrim** represents a forward-thinking, climate-aligned solution – restoring road safety while reducing environmental harm.

STATE HIGHWAY 2
CASE STUDY

Waikato, New Zealand

State Highway 2 is a strategic highway linking the Golden Triangle of Auckland, Waikato and Tauranga, linking the cities' populations to the marine and inland ports.

This section of State Highway 2 has an average daily traffic of 7,500 vehicles with a high amount of heavy commercial vehicles and has been problematic for the Road Controlling Authority and maintenance contractor with repeated flushing events occurring over multiple seasons. A solution was necessary to improve the flow and reduce delays on this high-traffic arterial.



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Demonstrable results

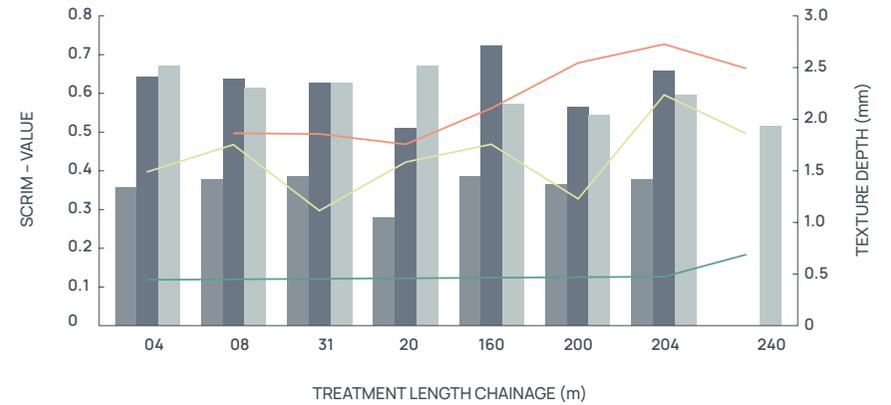
HIWAY MasterScrim was used as a trial treatment to correct the lack of surface texture in wheel-tracks on a 240-metre section of the State Highway as an alternative to water cutting. Prior to treatment, the SCRIM skid resistance alongside the Mean Profile Depth (MPD) with both parameters well below safety intervention thresholds.

The HIWAY MasterScrim treatment of both wheel tracks was undertaken simultaneously in a single pass followed by rolling with a multi tyred roller. Due to the ability to treat both wheel tracks, the process was time efficient reducing delays to road users.

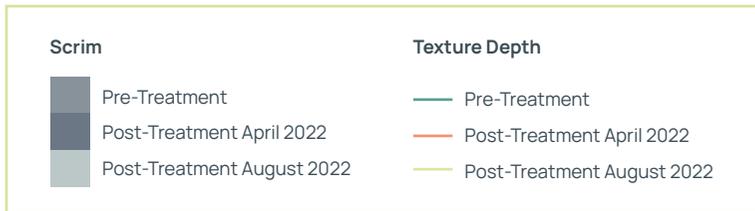
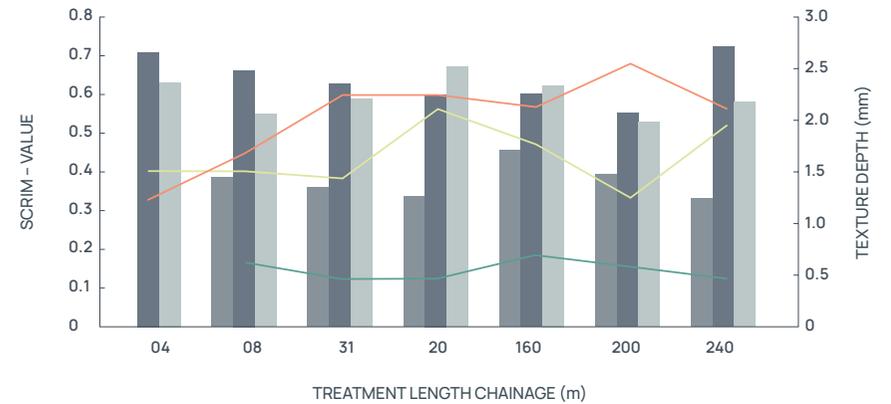
Following treatment, the skid resistance and MPD were again assessed to provide a direct comparison of the treatment. The testing confirmed HIWAY MasterScrim increased the skid resistance by 70% and the MPD 293%, both well beyond investigatory thresholds.

The skid resistance and MPD were assessed again after four months to ascertain the dependable long-term performance of the HIWAY MasterScrim treatment on the site. The testing confirmed HIWAY MasterScrim maintained the increased skid resistance over this period with the MPD decreasing slightly from 293% to 209% and SCRIM from 70% to 62%. While a reduction was expected as an outcome of chip rollover, this trial showed that HIWAY MasterScrim easily outperformed the alternative solutions.

Scrim and Texture Depth – Left Wheel



Scrim and Texture Depth – Right Wheel



Conclusion

As demands on our transport networks continue to evolve - driven by climate, growing communities and the need for long-term resilience, the **HIWAY MasterScrim** solution stands as a benchmark for intelligent, sustainable pavement maintenance.

It combines nearly four decades of engineering expertise with a commitment to environmental responsibility, delivering measurable improvements in safety, performance and pavement life. By restoring texture without removing binder, **HIWAY MasterScrim** not only minimises waste and disruption but also protects underlying moisture sensitive aggregates and safeguards the integrity of road infrastructure into the future.

The results are clear: enhanced skid resistance, reduced environmental impact and a longer-lasting surface - all achieved with less time, less waste and more confidence in every kilometre. For contractors and communities alike, **HIWAY MasterScrim** represents a smarter path forward.



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By working together, we can advance a more balanced, sustainable and carbon-conscious network for all.

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Scan here
to learn more

Our communities deserve it.
Our environment depends on it.

HIWAY is the largest innovation specialist in sustainable pavement and road recycling in Australasia.



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