

UDOT Repairs Rumble Strips with CrafcO Mastic One

Scored pavement, or rumble strips, alert inattentive drivers of potential danger. These strips, typically applied on the shoulder or centerline, are proven to be an effective way to reduce accidents and save lives. Numerous studies also show a very high benefit-to-cost ratio for shoulder rumble strips, making them one of the most cost-effective road safety features available.

Therefore, it is imperative to maintain the pavement and scoring so the strips operate properly. But, like all pavement, rumble strips are subject to cracking, potholing, water ponding and snowplow damage.

The State of Utah Department of Transportation (UDOT) and local agencies noticed that the pavement scoring along sections of Route 89 (US89) in Sanpete County had become stripped and eroded with potholes. Route 89 is a long north-south state highway spanning more than 502 miles through the central part of the state.

UDOT had to preserve and extend the pavement life, without eliminating or reducing the effect of the safety scoring. In 2011, UDOT and local agencies used Mastic One by CrafcO for the first time. The mastic was applied over the pavement scoring, and it was a success.

Mastic One is a black-colored, hot applied, pourable, polymer modified asphalt pavement repair mastic. It is used for filling and repairing distresses in both asphalt concrete pavement (ACP) and Portland cement concrete pavement (PCCP) that are larger than those typically repaired by crack or joint sealing, but smaller than repairs requiring remove and replace patching procedures.

Typical uses for Mastic One include filling and leveling wide transverse or longitudinal cracks and joints, filling potholes and utility cuts, leveling high manhole risers, localized skin patch repairs, sealing and leveling bridge approaches, and repairing elevation discrepancies. It is formulated to provide a neat feathered edge installation, and forms a well bonded, flexible, durable, traffic resistant repair.



This highly self-adhesive ridged asphalt binder contains selected aggregate to ensure good load bearing and skid resistant characteristics. It resists cracking and delamination, has a proven service life of more than five years, and waterproofs ACP.

Mastic One is easy to install with just a two-person crew. It is packaged in solid form in a meltable plastic bag in a cardboard box. Each box weighs 40 lbs. To use, it is removed from the box, mixed and heated in an appropriate melter until the application temperature is reached. It is then poured into the prepared repair area and leveled. It attains 100 percent density with no compaction, and is ready for traffic when it has cooled.

In addition to using Mastic One over pavement scoring, UDOT has also been placing it in and over cracks wider than 2-inches where the pavement has become depressed and rough. Over the past four years, UDOT has placed more than 180,000 lbs of Mastic One on these types of pavement surface distresses.

As a result of patching the distresses and maintaining the scored pavement, UDOT has improved the ride quality and safety for drivers on US 89.