“Velocity patching systems will provide the main repair method for the lower use network as we move into a regime of maintenance based on use—the speed and cost effectiveness of velocity patching will enable us to maintain the low use network with fast response times, thus minimising disruption to road users.” Jon Munslow, Highway Asset Manager, Dorset Works Organisation.

Dorset County Council is applying innovative techniques and smart thinking to address the gap between Central Government funding and the expectations of the UK road user. Dorset County Council is an exemplar of a progressive approach to road maintenance. Throughout its DLO, Dorset Works Organisation, there is recognition of the scale of the challenge posed by reduced UK road budgets with a duty to deliver best practice to the authorities’ road users in the medium to long term not just using short term fixes following high volume of defects which resulted after recent harsh winters.

With the prospect of continual budgetary reductions DWO investigated various processes available which would benefit the rural network which suffers harshly as austerity measures take hold. Dorset is some 2653 square kilometres large with a high proportion of rural roads.

Set to a backdrop of diminishing budgets for routine road maintenance (£9.6 m for 2010/11 and £8.8 million for 2011/12) DWO began using the Velocity road repair machine as the main repair solution for its rural road network.

Velocity road repairs are a fast and efficient way to improve the network as the process does not cause any further damage to the road base and the simple but effective solution cleans, seals and repairs road damage extending the life of the carriageway and preventing the main cause of carriageway failure – water from penetrating damaged carriageway.

Breaking the reactive cycle of road maintenance is critical for all councils if proactive repairs are to be made using the process this will reflect in greater and longer lasting repairs in the rural parts of the County which results in better public perception due to reduced traffic management measures, road closures and pothole reduction. Using Velocity as a reactive measure has proven to reduce potholes across the county with a three week backlog of repairs cleared in less than three days.

As a result of using the process combined with a comprehensive asset management strategy that constantly challenges conventional repair methods DWO delivers the best possible service to its road users in hard times delivering significant efficiency savings in terms of time, carbon emissions, materials and labour with the result being increased longevity of its rural network.

The speed of the velocity road repair system facilitates high productivity levels and allows quick reaction to potential public health and safety issues. Velocity road repairs assist Dorset to meet its targets and timescales while reducing carbon emissions an ever important task for the modern Highway Manager. The use of the process frees up time and allows resources to be used on other important projects.
Velocity Productivity and Cost Savings

April 2010 - March 2011  9874 defects repaired

Due to the unique benefits of the process defect areas are of varying sizes, when converted to m2 using the national average repair depth of 25 mm, the typical cost is around £15.00 per m2 compared to £60.00 for conventional repairs.

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saving per square metre:</td>
<td>£45.00</td>
</tr>
<tr>
<td>Weekly saving:</td>
<td>£8550.00</td>
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<tr>
<td>Annual saving:</td>
<td>£444,600.00</td>
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</tbody>
</table>

The Velocity road repair system provides the main repair method for the lower use rural network as Dorset move into a regime based on road usage statistics. The speed and cost effectiveness of velocity repairs enable Dorset to maintain the low use network with fast response time and minimal road disruption. Velocity road repairs form a vital tool in our toolbox and without it both the rural network and council budget would be significantly impaired.

The money saved using this system is available as reinvestment for longer term planned repairs. This helps reduce reactive maintenance and allows the county to move away from ‘worst first’ approach and concentrate on planned replenishment works and allows the velocity process to be used in other areas such as pre-surface dressing on roads rather than simply filling potholes across the network.

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