A cost-effective and sustainable new technology is helping to keep Essex roads free from potholes.

Over the past year, Essex Highways has been using a system called Roadmender. This uses a highly durable and flexible material, partially made from recycled lorry tyres, to repair shallow potholes quickly and effectively.

The material, known as Elastomac, can be applied up to four times faster than traditional repair methods. Unlike conventional approaches, it requires no excavation and cools rapidly, allowing crews to move swiftly from one site to the next. This increases efficiency, minimises road closures and therefore reduces disruption for road users.

In addition to being faster and more cost-effective, the process is also greener. As there's no digging or need to transport waste material off-site, and also thanks to the recycled content of Elastomac, the carbon footprint of each repair is reduced by up to 85% compared to traditional methods.

Once applied, the adhesive, flexible compound bonds seamlessly with the existing road surface. This prevents water ingress and significantly extends the road’s lifespan.

After being trialled by Essex Highways in early 2024, the process was adopted in August last year to support road repairs. In this time, Roadmender has been used to treat nearly 14,000 square metres (13,827 m²) of damaged road surface across Essex. This is roughly the size of two Wembley Stadium football pitches.

The innovative process has run alongside conventional pothole repair methods during a period of record investment by Essex County Council in the local road network. That investment has already led to a significant decline in pothole-related complaints.

Key initiatives include the intensive £25 million Priority One programme. They also include the £8 million Member Highways Initiative (MHI), which gives each Essex County Councillor access to a dedicated Essex Highways crew to tackle the road issues that matter most to their communities.

The Priority One programme has delivered:

* 128 additional road resurfacings
* 824 drainage clearances
* 582 vegetation clearances
* 446 signage and bollard repairs
* 30 drainage system repairs

Meanwhile, the MHI has resulted in:

* 8,000 carriageway defect repairs
* 6,000 footway repairs, including kerbs and paving
* replacement of signs, bollards, pedestrian guardrails, and surface covers

Councillor Tom Cunningham, Cabinet Member for Highways, Infrastructure and Sustainable Transport, said: “We’ve invested more than ever before to maintain and improve Essex’s road network. But it’s not just about spending money, it’s about delivering the best value for our residents.

“Roadmender is a great example of that. It’s quicker, less disruptive, highly cost-effective and more sustainable - all things our communities will welcome. We’ll continue to explore innovative technologies to provide the highest standard of roads for the people of Essex.”