

## The bridge at Hagestein is up to the job once more



HAGESTEIN – The bridge at Hagestein is up to the job once more. On Sunday, the 25-year-old A27 Lek crossing was opened to traffic after five weeks of thorough roadworks. "In principle, the bridge should be able to face another thirty years," according to a spokesman from the Directorate General for Public Works and Water Management.

In the first week of July roadworks, combined with sky-high temperatures proved to be a recipe for lengthy tailbacks on the approaches to Utrecht. This weekend, the most significant noise to be heard on the bridge was the escaping air from the 400-metre long pneumatic 'tent' which had functioned as an umbrella for the workers. The dome slowly crumpled.

For five weeks, one or other of the carriageways over the Lek bridge at Hagestein was closed off by roadworks. Now that the work is over, the bridge is working at full capacity. For the duration of the roadworks the tent was moved in its entirety only once, when work shifted from one carriageway to the other.

The first phase of the roadworks saw the replacement of the top layer of concrete with special heavy-duty concrete, able to withstand the impact of HGVs, rain, snow, heat and cold. The ambient temperature makes severe demands on the road surface. On a warm summer's day, the bridge is thirty centimetres longer than in winter. The concrete and asphalt have to expand and contract, not crack.

In the final two weeks, the Utrecht-bound carriageway was given a new top layer. The concrete had already been replaced the year before, but the surface was too uneven. The synthetic anti-wear course applied to the concrete since then was produced and laid by Bolidt Kunststoftepassing B.V. This surface makes the bridge skid-resistant and less uneven at the same time.

The deflating of the tent opens the bridge to the fresh air and sun again. The first few weeks were a case of having to 'bite the bullet', according to project manager Oscar Vos of contractors Strukton Betonbouw. "Under the tent, temperatures were up to 47 degrees. We set up industrial-size fans at the entrance of the tent so that at least we could have some through-flow of air."

Overall though, working under the tent was a success. Without it, work would have been impossible under the intense sun and, during the last week, work would have been delayed due to rain. The work was easier to manage," says Vos.

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