



## A66 Column 20B

VolkerLaser was contracted by Middlesbrough Council to undertake concrete repairs and bearing replacement on the A66 in Middlesbrough.

Situated in Middlesbrough, the A66 flyover, located near the railway station, is a major road in Northern England providing access in and out of the town. An inspection revealed critical water damage, especially to Column 20B, where failed bearings were putting stress on adjacent beams. It was therefore essential to undertake structural repairs to extend the lifespan of the flyover.

Our specialist team was responsible for the design and installation of two sets of temporary works - one to support the beams during repairs and another to support the bridge for jacking to facilitate bearing replacement and strengthening of Column 20B.

The project involved a series of complex procedures to ensure the main structure of the A66 flyover remained operational. Initial works began with the installation of temporary works to accommodate extensive beam removal. The beams were intentionally weakened using hydro-demolition, which removed the old and damaged concrete.

Once hydro-demolition works were complete, the team began to execute a complex tandem beam pour, pumping 4m<sup>2</sup> of concrete into two bespoke suspended formworks.

With the beams structurally stable, the team constructed new temporary works to lift the bridge up by 1.5 millimetres to replace the old bearings and repair the column.

Certified by Corrosion Prevention Limited, our expert team carried out galvanic protection works to rehabilitate the structure, this included installing sacrificial anodes into the beams and bridge to reinforce the new and old concrete and the steel reinforcements within, to protect further corrosion.

Due to the nature of the project, traffic management was required. Several short-term night closures were implemented during the jacking and de-jacking operations along with the beam concrete pours. For the rest of the project, partial lane closures were put in place to ensure minimal disruption to traffic flow.

The project was completed at the end of September 2024.

