Cost-Effective 3D Modelling and Improved Inspection Planning

Using Google Sketch-up provides a cost-effective solution for 3D modelling.

**PROJECT**
Wandsworth Town

**CUSTOMER**
Network Rail

**LOCATION**
Wandsworth Station

**CONTRACT**
One Team Wessex
**Issue**

The Wandsworth Town Project involved a bridge replacement, repairs made to a separate bridge, substation works and platform works. Work had to be completed within a 100 hour possession.

**Solution**

To improve planning, we created a 3D Google Sketch-up model along with an Inspection and Test Plan (ITP). This guided the QA BIM process and helped create an ITP template for future projects.

The model and Navisworks were used to create a simulation of the bridge replacement.

An as-built and design model and the clash detection process highlighted any design limitations. 25 Digital QA checklists were designed to increase efficiency and accuracy.

**Outcome**

Using the full 3D Google Sketch-up Model for visualisation was a cost-effective solution and highlighted any safety flaws in the programme ahead of implementation. Similarly, using an ITP ensured a faster digital QA setup, while 3D simulations improved safety and planning. Due to storm Katie the bridge replacement was postponed but the simulation fully proved the feasibility of the process.