

IMPROVING OCCUPATION VISUALISATION AND COMMUNICATION WITH AUGMENTED REALITY

See what you can't see, see the future, empower users and more importantly improved understanding.

Engineers and workers can now visualise and understand what is about to be constructed through the use of augmented reality.

This technology ensures workers can see what they are about to install or construct in the real world providing them with best opportunities to communicate their workflow and work towards the same goal.



Augmented reality technology with ability to blend the model with the real world looking through the iPad (left). Engineers and leading hand discussing potential clashes prior to the installation (right).

The Situation

Engineers and workers are constantly faced with the challenge of understanding the extent of what is about to be built, constantly needing to refer to drawings, plans and project resources for reliable answers to accurately conceptualise the final product.

This cycle can strain resources and program by slowing the construction progress. Quite often, some of the crucial design information can also be either misplaced or lost in translation, resulting in construction failing to reflect approved designs or specification. This can cause reworks and further jeopardise the limited timeframe that is made available to the entire build.

The Solution

models, the Hurstbridge Line Duplication team are now able to inject the 3D model into augmented reality technology, enabling users the ability to visualise the 3D model within the real-world.

The technology will also further allow the user to immerse themselves in the augmented reality enabling viewing the accurate representation of their upcoming works.

Benefits and Learnings

Benefits include but are not limited to time and resource saving, mitigating design misinterpretation and enabling constructability issues to be worked through in augmented reality where all participants can see the same outcomes.

It is difficult to estimate a specific cost saving, however increased efficiency in communication and a better understanding of the final deliverable outcome from the site teams could result in significant cost savings.

Estimated saving of 50% of communication time relating to on site deliverables.

Empower and enhance the user the ability of visualisation and communication.

Program Office: Level Crossing Removal Project
Work Package: Hurstbridge Line Duplication - Greensborough Station
Principal Contractor: Southern Program Alliance

Solution Vendor: UPG/Trimble
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