



Building homes for Britain

sensat
case study

Milton Keynes,
United Kingdom

With  **Berkeley**
Group



Building homes for Britain In numbers

Size of the area:	6.79 km ²
Number of data points:	1.7 bn
Data capture time:	13 hours
Data delivery time:	1 month

Berkeley Homes and WSP use Sensat to expedite their planning application process.

Project brief:

Berkeley Homes and WSP required a detailed topographical survey of what was to be a new housing development in Milton Keynes. This was to validate design decisions and strengthen their planning application with the local Strategic Infrastructure Fund.

This was paramount to the delivery of the scheme due to its location and size, 6 km², sitting alongside the eastern side of the M1.

Problem:

Due to the size of the area and expectation for fast deployment, a manual topographical survey was priced at upwards of £200k. This, combined with the tediously slow speed of land surveying meant that it was not viable. Manual methods would have resulted in a programme of up to 6-9 months and called for numerous arrangements with tenant farmers, private landowners and Highways England.

Solution:

Sensat successfully utilised UAVs to scan the entire development area and generate the highest detail digital twin of the 6 km² site ever created.

The data was seamlessly captured, processed, quality assured and delivered in just 30 days. Not only was it 85% faster, but 75% more cost-efficient than the manual

Above: 2D
Orthomosaic
hosted in Sensat's
platform

survey. Sensat's extended visual line of sight permission, as awarded by the CAA, mean that our UAVs can be operated up to 1500 m from the pilot, as opposed to 500 m for competing providers.

The visualisations created from the UAV survey included a high-density point cloud, DTM, orthomosaic, and 3D mesh. The data can be integrated with CAD and BIM to provide an incredibly detailed, versatile and collaborative digital environment in Sensat's visualisation platform.

Conclusion:

The resulting digital twin, captured faster and more cost-efficiently than traditional means, provided WSP with the visibility and insight they needed to design strategic infrastructure, and helped Berkeley Homes secure planning permission. ■

85%
faster

75%
cheaper

