

## HOLISTIC INVESTIGATION OF MEZZANINE LEVELS

TRACE-SI accurately identified mezzanine construction details through holistic non-intrusive investigation.

### OBJECTIVES

TRACE-SI was approached to analyse the structural details of two mezzanine levels. These platforms, around 13 x 6m each, supported by concrete columns and upstand beams. Details of the structures was limited. The client required a comprehensive analysis of the mezzanine construction details without a heavy reliance on intrusive methods.

### SOLUTIONS

TRACE-SI designed and implemented a two-pronged investigation approach. First, a non-intrusive investigation was executed using a high-frequency ground-penetrating radar system to delineate the overall and typical construction details.

The second part of the investigation involved targeted intrusive breakouts to confirm reinforcement bar details.

All data collected were meticulously processed and analysed by experienced TRACE-SI personnel leading to the creation of a detail report that provided the required, comprehensive information to the client.

### BENEFITS

TRACE-SI's expert analysis ensured confirmation of the element and joint details, providing much-needed clarity for the client. The integration of non-intrusive investigation with targeted intrusive breakouts allowed for comprehensive and efficient assessment while minimizing disruption to the site.

The holistic approach undertaken by TRACE-SI not only provided accurate and detailed results but also promoted informed decision-making by the client for future structural considerations.



Ø10mm plain round bar at 24mm cover

Ø32mm ribbed main bar at 43mm cover

Ø60mm metal pipe, 9mm wall thickness, bar at 20mm cover. The pipe stops 900mm above finished floor level.