Roman Wall, Vine Street, London

Vibration Monitoring of Scheduled Monument

London - UNITED KINGDOM

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Vibraiton monitoring of the Roman Wall

Revisiting the completed 'City Wall' museum - Apr'26

2017 - 2022

Cliveden Conservation
Historic England & Urbanest

4 years

2 points
Vibration Monitoring

THE CHALLENGE

The construction of a new student accommodation building in East London presented a key challenge; preservation of the fragile remains of London's historically significant Roman Wall. This Scheduled Monument and protected site was located within the basement of the existing building, requiring careful planning and protection measures while carrying out demolition and building works. The project demanded the implementation of high-resolution vibration monitoring, along with reporting and a robust, real-time alerting system to keep stakeholders and government agencies informed and reassured. Further complexity arose from the requirement to maintain reliable real-time data transfer from a multi-storey basement, where data connectivity and environmental conditions posed additional technical constraints.

OUR ROLE

As a specialist monitoring provider, Sixense played a critical role in protecting the Roman Wall during site works by developing and implementing a bespoke vibration monitoring plan tailored to the sensitivities of the historic structure. The team carried out baseline vibration monitoring prior to the start of works to establish reference conditions and worked closely with multiple stakeholders, including national agencies, to ensure transparency and compliance throughout the project. Using advanced techniques such as multi-monitor data correlation, Sixense were able to identify and pinpoint sources of vibration, while also delivering data analysis and reporting to provide clear, actionable insights, and maintain confidence in the protection measures in place.

OUR VALUE-ADDED SOLUTION

Sixense delivered expert technical advice alongside the design and implementation of a bespoke vibration monitoring solution tailored to the sensitivities of the asset. This approach resulted in a robust monitoring system featuring real-time data acquisition, a multi-party alerting system and comprehensive reporting, enabling construction to progress efficiently while safeguarding the structural integrity of these valuable historic assets and supporting successful project delivery.