Select

Capability Statement

Engineering, Surveying & Monitoring

Environmental Monitoring

Surveying

Engineering, Surveying and Monitoring

Advanced Monitoring Solutions for Precision and Compliance

Offering structural, geotechnical and environmental monitoring solutions to a wide range of clients to ensure site operations can be undertaken without causing harm to those affected, to the quality standards required and without adversely affecting the environment.

Our experienced team installs and maintains highly accurate monitoring solutions and utilises high precision survey instruments and techniques to gather and analyse monitoring data as per specification and client requirements.

Key Capabilities:

- Install and maintain highly accurate monitoring solutions
- Live alerting and reporting
- Manual survey and monitoring observations
- Contaminated land and groundwater monitoring
- Drone surveying and laser scanning
- Network Rail Track Surveys
- London Underground track and tunnel surveys
- Confined space monitoring in sewers, tunnels and shafts
- Load monitoring
- Engineering Surveying and setting out
- Data Analysis

Surveying

Environmental Monitoring

Noise, Dust and Vibration Monitoring

Providing environmental monitoring services for projects ranging from small private initiatives to national schemes.

Our noise, vibration and dust monitoring team utilise industry leading technology to provide various monitoring solutions including bespoke instrumentation for the most difficult locations.

With a breadth of experience, we advise and support clients to ensure they are meeting the relevant British standards. Our solutions inspire confidence and provide the necessary evidence to show that clients are protecting their assets and those of project stakeholders.

Our real-time monitoring solutions limit the impact on neighbouring premises and are highly adaptable to meet all kinds of site specifications.

Key Capabilities:

- Project boundary and structural based noise, dust and vibration monitoring
- Monitoring for sensitive structures and underground assets
- Attended monitoring including specific works activity-based trials
- Advice and assistance with Section 61 submissions
- Baseline environmental monitoring
- Environmental data visualisation for public interface
- Effective off-grid monitoring solutions
- Data analysis and reporting

Case Study

OUR EXPERIENCE

Thames Tideway Tunnel

The monitoring subcontractor for the central section of the tunnel from Wandsworth to Chambers Wharf. This included monitoring 8 shaft sites and two TBM drives totalling 15km in length, including every asset along the route.

DURATION (YEARS)	VALUE (£)
8	7M

Phase 1 of the project began in 2016 with 3 shaft sites (KRTST, BLABF & VCTEF), with the remaining 5 shaft sites and TBM drives awarded as Phase 2 in 2017.

The TBM drives included monitoring 5 LUL tunnels, 4 Network Rail Bridges, 13 road / pedestrian bridges and 10 services tunnels owned by BT, TWUL, UKPN and Vodafone

Project Requirements

- Installation and maintenance of manual monitoring points at 8 shaft sites and 19 bridges
- Manual monitoring observations at specified frequencies depending on the construction sequence.
- Automated monitoring solutions within various tunnels with live alerting based on defined triggers
- Track gauge and alignment surveys using GEDO track trolley, and London Underground tunnel laser scans
- Installation and maintenance of automated sensors including tiltmeters, shape arrays, electrolevels, crackmeters, total stations and hydrostatic level cells
- Vibration monitoring of key assets including within sewers, manholes, service tunnels and the Waterloo & City Line tunnel
- Installation and maintenance of 5 automatic total stations at 3 of the shaft sites.
- Data management and reporting utilising all manually collected data and automatic data from various sensors, stored on a shared visualisation platform

Oxford Ellison Institute of Technology Project

Provider of environmental monitoring services for the Ellison Institute facility comprising of the construction of a new cancer research laboratory, clinic, and wellness facility, adjacent to the established Oxford Science Park in South Oxford.

DURATION (YEARS)

3

MONITORS

28

The project began in December 2022 with pre-construction activity.

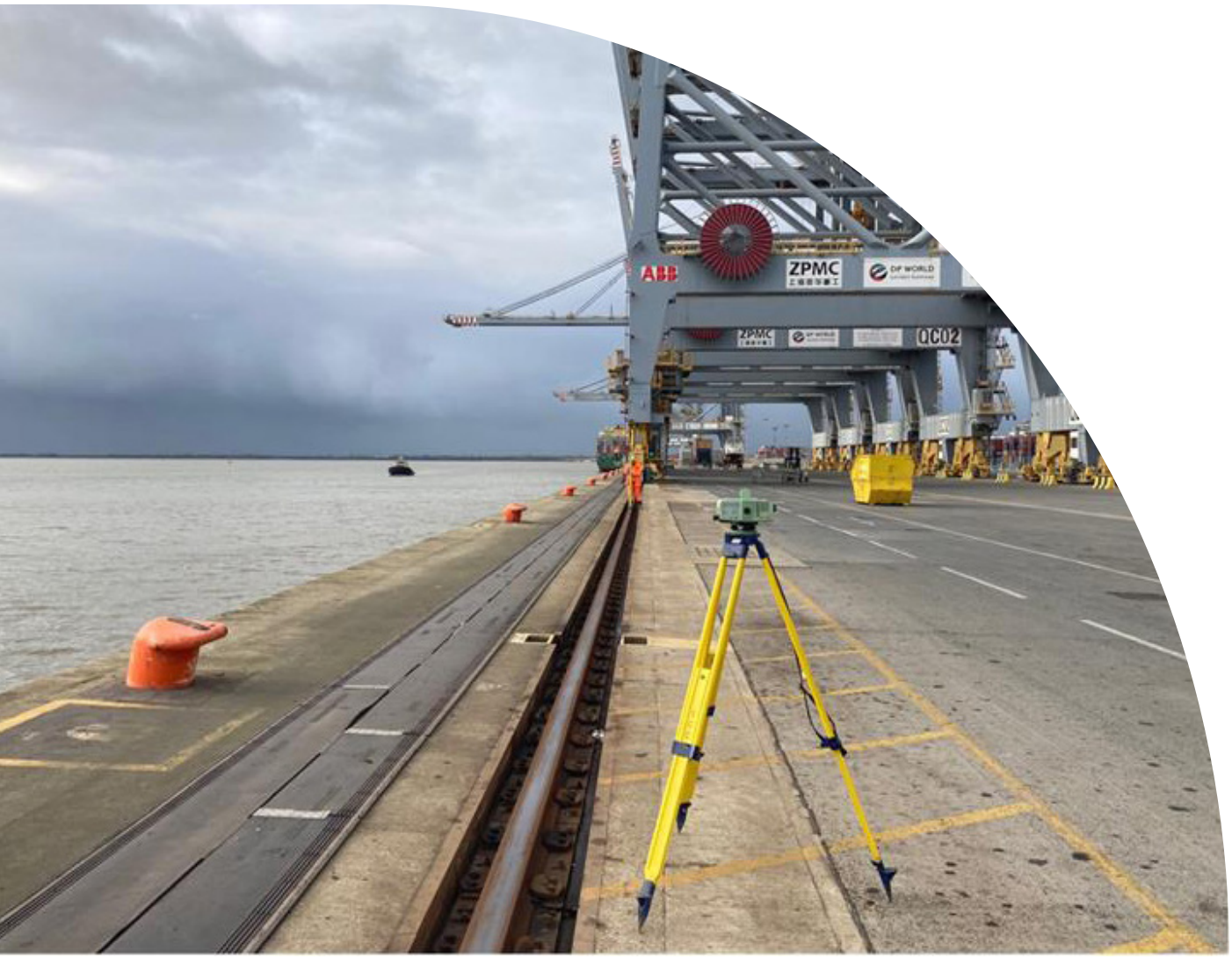
10 Littlemore House (LMH) façade vibration monitors were installed in May 2023 to help manage the general interface between the new superstructure and the retained sections of LMH.

18 site boundary monitors have been installed across two plots to provide representative readings at the site boundary and for specific locations related to the most sensitive receptors.

Project Requirements

- Early project engagement: Advice and assistance with monitoring specifications and construction plans.
- Real-time Alerting System: The monitoring equipment provides instant email alerts set according to agreed project trigger levels along with a data visualisation platform.
- Off Grid Solution: Utilised wind and solar power to provide for a combined noise and dust monitoring position.
- Maintenance: Quarterly maintenance checks conducted to ensure monitoring equipment is working effectively throughout the project life cycle.
- Noise Source Recognition: Use of audio recording and AI integration.
- Reporting: Monthly reports provide a comprehensive summary of the data and any exceedances, which can be attributed to specific works following consultation with the site team.

Select



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