

### Bond Street Station Upgrade London, UK

#### Environmental Noise and Vibration monitoring during redevelopment

As part of The Bond Street Station Upgrade Project, SolData have been appointed to provide an automated Gorgone 'real time' monitoring system to measure the control of noise and vibration levels above ground, prior to, and during construction.

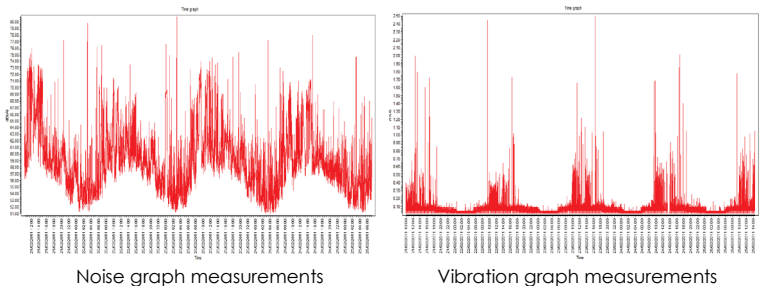
The Station Upgrade works consist of improving the underground station facilities to reduce congestion, provide step-free access and develop the station in preparation to the future Crossrail Bond Street Station development. In order to achieve these objectives, extensive construction works, demolition and underpinning of buildings, amongst which several heritage buildings, deep basement works, tunnelling works and service diversions will have to be carried out and the noise and vibration arising from these activities have to be assessed and controlled in order to mitigate the impact on London Underground and third party assets.

SolData installed its innovative, automatic Gorgone system on site in November 2010 initially for the forward monitoring phase and later for the main construction.

As an integral part of the structural monitoring solution provided by SolData on this project, noise and vibration data is automatically acquired and processed by a data logging solution on site, then stored on a remote server and managed and display using SolData's Geoscope software. The Geoscope software is also provided to the main contractor, providing them with real time 24/7 access to the monitoring data as well as the ability to run fully customisable reports as required by London Underground, Crossrail and Westminster Council to determine and control noise and vibration levels in accordance to the Section 61 consent requirements.

In order to control potential breaches of limits during sensitive works, email/SMS alarms based on trigger levels are sent directly to designated persons via SolData's Geoscope software.

Additional to the above ground installation, SolData have also been appointed to design, install and manage 5 additional Gorgone systems (combined noise and vibration) in the London Underground tunnels during the improvement works.



<b>OWNER :</b>	LONDON UNDERGROUND LTD
<b>CONTRACTOR :</b>	COSTAIN/LAING O'ROURKE JV
<b>PROJECT DURATION :</b>	2010 - 2016
<b>SCOPE OF WORKS :</b>	<ul style="list-style-type: none"><li>• Monitoring of sensitive, heritage buildings</li><li>• 5 Nos Gorgone Systems (Noise and Vibration Automatic Monitoring Systems).</li><li>• 'Real-time' monitoring and instant client access to data via Geoscope.</li><li>• Text message, email alarms.</li><li>• Remote archiving of all data on secure servers.</li></ul>