



Bond Street Station

Satellite Ticket Hall
Communications
services



The new Elizabeth line Bond Street station - part of the Crossrail Project - will help improve accessibility and increase capacity at one of the busiest shopping districts in the UK, accommodating over 225,000 people using the Jubilee, Central and Elizabeth lines daily.

The project includes the creation of two new ticket halls at street level – one at Davies Street, the other at Hanover Square. The new satellite ticket hall connects to the existing station via an existing subway. This new satellite ticket hall provides access to the Central and Jubilee lines through new lifts, a new set of escalators and associated shafts and passageways created as a result of new tunnels and shafts.

Construction of the new satellite ticket hall required demolition of an existing building located at 354-358 Oxford Street and alteration works to the basement of No 2 Stratford Place. The resulting space above the new ticket hall is being used for an oversight development.

L.B. Foster Telecoms (TEW Plus Ltd) worked with project overarching managers Costain Laing O'Rourke Joint Venture to provide integrated communications services for the new satellite ticket hall. This included the supply, installation, testing and commissioning of the new communication systems under the redevelopment works to form a complete communication installation.

"The new satellite ticket office at Bond Street provides additional capacity for the millions of people using the underground. Making sure that the communications systems are fit for purpose is essential for the safe running of the ticket hall. The team from L.B. Foster Telecoms (TEW Plus Ltd) demonstrated real leadership on the project, reconfiguring designs and adapting to the environment as required. The team's knowledge and can-do attitude were exemplary."

London Underground Ltd

Requirement

The scope of telecommunications and safety works required at the new Bond Street station satellite ticket hall included a combination of our integrated telecoms and safety solutions: > Public Address / Voice Alarm (PA/VA) System

- > Closed Circuit Television (CCTV)
- > Passenger Help Point (PHP)
- > Clock (CLK)
- > Station Management System (SMS)
- > Electronic Service Update Boards (ESUB)
- > All Connect Systems (Transmission & Radio Systems)
- > Fibre systems

- > Inter-station cabling infrastructure (both copper and fibre)
- > Intra-station telephony copper cabling infrastructure
- > Data/Communications circuits associated with the UTS system.

In addition, the project scope required a commitment to sustainable practices. This included minimising waste production and carbon emissions, as well as reducing packaging of new materials, e.g. buying in bulk, and recycling any packaging where possible. Our strategy also included recycling disused or redundant, stripped out materials such as cable, containment and brackets, wherever possible.

Our Solution

L.B. Foster Telecoms (Tew Plus Ltd) worked with Costain Laing O'Rourke Joint Venture to design, install and commission new communications services throughout the new satellite ticket hall at Bond Street station.

PA/VA

We installed the new speaker (PA/VA) system to allow an operator to make extemporaneous and pre-recorded PA announcements to all public areas of the satellite ticket hall in accordance with the requirements of LU Standard 1-142 – 'Operational Information Systems'. The new PA speakers conform to LU Standard S&SCE-ST0008.

System control equipment for the PA/VA system is installed within the CER. The PA/VA system has numerous operator positions throughout the station. Primary operation of the system is by use of the Station Management System (SMS) and the Station Master's Console within the Station Control Point (SCP). The PA/VA system is also interfaced to the station fire alarm panel to provide automated emergency messages to all areas of the station.

CCTV

The existing Closed-circuit Television (CCTV) system at Bond Street station was installed

during Station Enhanced Refurbishment works in 2007 providing complete security monitoring coverage of all public areas of the station. New CCTV system coupled with the new IP system under the Crossrail Integration provides facilities for security monitoring of the Northern, Southern Tunnels, Crossrail Link Passage, Lifts 1, 2, 3 & 4 and Cameras over Escalators 9 & 10.

Existing control equipment for the CCTV system was replaced as part of the LU Crossrail SORI Project (LU ISQ 109) within CER 3/732.

Passenger Help Point System

We installed four new Passenger Help Point Systems in the satellite ticket office, including the lobby lift, booking hall and ground floor lobby.

Station Management Systems

The existing Station Management System (SMS) at Bond Street station was installed during the Station Enhanced Refurbishment works in 2007. We reconfigured and upgraded the SMS to provide the station operators with a control facility which enables them to help manage the equipment and people on the station.

What they say

"What we look for in any project is expert advice and guidance. The team at L.B. Foster Telecoms delivered on all counts, offering experience and expertise that meant the final installed solution achieved exactly what was needed. What shone through was the team's inherent understanding of the challenges we face in the rail sector and the ability to identify great solutions."

Project Manager
Costain Laing O'Rourke





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