









#### Introduction

PTSG's London-based Access & Safety team (Integral Cradles, which was acquired in 2015) provides permanent façade access equipment for new build, refurbishment and ongoing maintenance projects.

Its access experts have worked on some of London's most iconic new skyscrapers which are helping to create a new skyline in the capital. They include The Scalpel (52 Lime Street), The Gherkin (30 St Mary's Axe) and The Cheesegrater (the Leadenhall Building), contributing to one of the most recognised skylines in the world. All of these buildings also benefit from access solutions designed and installed by PTSG's London-based Access & Safety team.

**One Blackfriars** (also known as The Vase – No.1 Blackfriars Road) is another iconic London skyscraper which has benefited from PTSG's access and safety expertise.

One Blackfriars, which houses 274 luxury apartments, was inspired by a piece of 1050s art: a Scandinavian glass vessel from architect Ian Simpson's private collection. It stands 52 storeys high and contains 9,100 panes of glass in the inner and outer façades, 13 times more than in the Louvre Pyramid.

The ground-breaking ceremony for One Blackfriars took place in October 2013. The site was topped out in spring 2017 and was completed in 2018.

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#### Innovation and collaboration

Each skyscraper requires its own unique access system and One Blackfriars is no exception. PTSG installed three building maintenance units, with interlinked opening doors on level 44. The BMUs weighed up to 40,000 kg with up to 30m telescopic reach.

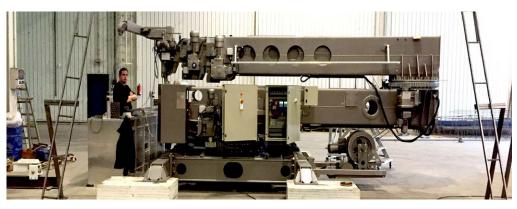
The door mechanism and the BMUs act in unison to allow controlled and safe access to the building façade. The BMU comprises a "knuckly" jib to these static machines to access the complex external features of this iconic tower. The compact design of the BMUs allows them to be parked within a very small area behind the glazed doors, resulting in an aesthetically pleasing solution.

The level 50 BMU has a louvred roof section attached to the BMU to hide it from view, forming an integral part of this unit. The BMU parks within a tolerance of 30mm, ensuring that the roof cladding louvres are seamlessly aligned. Over 20 PTSG staff members – project managers, cradle engineers and apprentices – worked on this project.

PTSG started working at the site in 2015 in close collaboration with the client, WSP, Multiplex and cladding supplier Yuanda, with whom PTSG has worked on several other projects. In recent years, PTSG has collaborated with Multiplex on The Goldman Sachs UK headquarters, Schroeder's UK headquarters and Damac Tower.

PTSG's work included sharing 3D models to determine how to prevent the main BMU, which was housed in the rooftop structure, from intruding on the penthouse space. The model allowed the team to fully understand the space and reduce the size of the BMU to a more compact unit.

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PTSG (via Integral Cradles, its London-based team) has a long and strong working relationship with Multiplex, having collaborated a number of times in recent years on The Cheesegrater, The Gherkin and London Aykon One.

PTSG operates, from the direct and swift deployment of engineers to site (knowing exactly where to go first time – right down to where to park) to the real-time job tracking (vital for both office staff and client) and the immediate, automatic generation of certificates, to the instant raising of paperless invoices. While working at One Blackfriars, PTSG achieved:



**Health and Safety** – during the project, PTSG worked 16,500 hours with zero major and zero minor injuries.



**Sustainability** – PTSG signed up to the Net Zero Carbon Buildings initiative, with the aim of cutting out greenhouse emissions altogether from the global economy by 2050.



**Budget** – all of PTSG's works were completed to the fixed-price budget.



55% of site staff completed the NVQ level 2 while on the project.



**15%** of PTSG's workforce were locally-sourced apprentices.



**66%** of office staff are SMSTS trained.



**20%** of staff are Mental Health First Aiders.

#### Shaping the city's famous skyline

One Blackfriars tower has been described as a magnificent addition to the London skyline, creating a unique and luxurious base for its residents. PTSG is proud of the part it has played in its creation, the value of which was maximised by the successful working relationship with all stakeholders.

London is a city famed for its eclecticism and One Blackfriars has joined a long list of well-loved architecture across the capital. While their visionary blueprints are brought to life by Multiplex, PTSG provides the practical access solutions that will allow these buildings to operate and stay well-maintained in the future, providing a vital service that helps to make this exceptional architecture possible.

