

Bank Capacity upgrade, London UK

Transport for London (TfL) has used NEC to increase the capacity of one of its busiest underground railway stations by 40%. It let the design and build contract, part of the £700 million project for upgrading Bank Station, to Dragados under an NEC3 Engineering and Construction Contract (ECC) Option C (target contract with activity schedule) in July 2013.

Following detailed design, construction started in April 2016 and was completed to the agreed programme and budget in February 2023. The project was highly commended for the Transport Project of the Year in the 2023 British Construction Industry Awards.

Bank Station serves one of the world's leading financial centres, providing an interchange between the Northern, Central, Circle, District and Waterloo & City lines and the Docklands Light Railway. The upgrade works included building a new Northern line southbound platform tunnel and associated approach tunnels to reduce interchange times and provide more space for passengers.

Accessibility and capacity was further improved by building a new entrance on Cannon Street and installing two new lifts, 12 new escalators, two new 100 m long moving walkways and several new underground passageways. In total more than 1000 m of new sprayed-concrete-lined tunnels were built in highly congested ground next to live railways and directly under the historic City of London.



CASE STUDY

Project: To Upgrade Bank underground and railway station and increase capacity

Location: London UK

Client: Transport for London

Value: £700 million

Year: 2016-2023

Contracts used:

- NEC3 Engineering and Construction Contract (ECC) Option C (target contract with activity schedule)

Trust and collaboration

TfL project director – stations Lincoln Ofokansi says the Bank Station capacity upgrade was one of the most complex station upgrade projects ever undertaken on London Underground. 'It was like doing open heart surgery on a patient who is awake. The station remained operational throughout the works, apart from a 17-week part closure of the Northern line. We were sometimes tunnelling centimetres away from the operational railway.'

He says the project was procured using TfL's innovative contractor involvement model. 'This helped us develop innovative ways of working with our contractor to achieve the best outcome for the project. The key to this was the relationship, which was trust and full collaboration every step of the way. The NEC3 ECC Option C Contract allowed us to share risks and opportunities, and the resulting relationship and collaboration helped us get through the pandemic with minimal impact on the project.'

Management protocol

TfL senior programme commercial manager Rob Mitchell says in addition to the NEC requirement for the parties to act in a 'spirit of mutual trust and co-operation', the contract was supported by a non-binding management protocol. 'This set out the intent of how the parties would conduct themselves in developing and implementing mutually beneficial working practices to achieve a successful outcome.'

He says the protocol was referred to as the 'Best for Bank' approach. 'It was adopted at all levels of the project team and led to excellent behaviours and working relationships. It also complemented the clear NEC process for early warnings, compensation events and programme management.'

Dragados operations director Steve Holmes says that through the innovative contractor engagement process and NEC-inspired collaboration, Dragados was able to save £60 million over the base design and place value at the project's core from the outset. 'This meant that all project teams were actively engaged throughout the design process, leading to the most optimal solution and successful delivery to the agreed programme and budget.'

World-class station

Sadiq Khan, mayor of London and chair of the TfL board, said on completion of the project in February 2023, 'These extensive works have transformed Bank Station into a world-class station, fit to serve a financial district of international renown. Londoners can now benefit from a station with 40% increased capacity, a brand-new entrance on Cannon Street and two new lifts which will deliver step-free access to the Northern line for the first time.'

TfL has extensive experience of using NEC contracts for urban rail projects, including the £1.1 billion Northern line extension completed in June 2022, £19 billion Elizabeth line completed in May 2022 and the £700 million Victoria Station upgrade completed in 2019.

Benefits of using NEC

- NEC requirement on parties to act in a 'spirit of mutual trust and co-operation' helped to ensure genuine collaboration between the parties, including during the detailed design stage.
- The focus of NEC ECC Option C on programme and risk management enabled the parties to share risks and opportunities, including working through the Covid-19 pandemic.
- NEC processes of early warnings, compensation events and programme management helped keep the project on time and budget and complemented the 'Best for Bank' approach to collaborative working.

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Lincoln Ofokansi, TfL Project Director

