

- A different design approach helps deliver 'Step Free' access on London Underground.
- Supporting the Mayor of London's commitment to a greener, fairer, and healthier transport strategy for London.



Case Study

LUL SFA Phase 1 Design differently to deliver on time

PROJECT	LUL SFA Phase 1 – 7 Stations
CUSTOMER	London Underground
LOCATION	Burnt Oak, Debden, Hanger Lane, Ickenham, Northolt, Sudbury Hill and Wimbledon Park
COMPLETION	2021





Need

As part of a greener, fairer and healthier transport strategy, the Mayor of London has vowed to make travel through stations easier for people with disabilities, parents with pushchairs or anyone who struggles with their mobility.

The next 12 stations to benefit from his commitment to 'step-free' access have been identified. Together they will improve the lives for 33 million passengers passing through the stations each year.

Londoners were promised completion by June 2020. That was a tight delivery programme when the design and construct contracts were only awarded in early 2019. A different approach was crucial to ensure success.

Solution

LUL wanted collaborative sharing of knowledge by the whole team to drive efficiency and on time delivery.

To drive collaboration, they co-located the package suppliers for the 12 stations into their Victoria. We were responsible for Burnt Oak, Debden, Hanger Lane, Ickenham, Northolt, Sudbury Hill and Wimbledon Park.

Representatives for each tranche formed the Accessibility Leadership Team which met weekly around an interactive visual board. Open discussion raised any issues and the teams then went away to resolve them. Where process or people blocked progress LUL sought to change mind-sets and improve process. The emphasis was on one collaborative team with one common delivery goal.

Detailed design

To meet the promises, the design process had to be expedited. LUL agreed to a 'progressive assurance design plan'. The plan allowed critical design elements to progress through detailed design without full agreement of the concept design. This approach saved 6 months.

It was important that LUL engineers were brought on the design journey. Each week an all-day workshop with specialist suppliers, focussed on one aspect of the design and the team reached consensus.

One example was the lifts. They were programme critical and supplied under a direct contract with LUL. Supplier, Otis needed 14 weeks notification from completion of the lift shaft. We had to shorten it. Through a collaborative workshop the team agreed efficiencies which enabled installation to commence 8 weeks from shaft completion. This saved 6 weeks on programme.

Outcome

LUL's commitment to collaboration has helped to deliver their promises.

- Progressive design assurance has accelerated critical elements saving 6 months.
- Foundation piling has been expedited to secure the programme milestones.
- The lift installation period has reduced by 6 weeks.
- Trusted relationships are developing a committed 'One Team' ethos.



Figure 1 - Sudbury Hill Station