

# Commendation

Structural Steel  
Design Awards 2024

## Bishops Square, London

### PROJECT TEAM

Architects: **Foster + Partners, Bond Bryan**

Structural Engineer: **Price & Myers**

Steelwork Contractor: **Elland Steel Structures Ltd**

Main Contractor: **VolkerFitzpatrick**

Client: **J.P. Morgan**



Forming part of the multi-million-pound Bishops Square redevelopment, which has transformed a large area next to east London's historic Spitalfields Market, a standout steel frame structure has been constructed to add a further 10 retail and food outlets for residents and shoppers to enjoy.

This distinctive building, designed to be in keeping with Spitalfields' heritage, features an exposed structural steel frame, coated in a dark red iron oxide, infilled by glazing, canopies and partitions, to give it a modern and industrial feel.

The architectural exposed frame required the steelwork contractor to fabricate, supply and erect 750 individual pieces of steel, amounting to an overall weight of 360 tonnes. The highly decorative fire protection finish on the frame was achieved through meticulous planning and preparation of the offsite elements, with a final topcoat polyurethane sealer applied onsite. The exposed joints were carefully designed for uniformity, with 5,500 bolts visible. The steel frame is a rigid frame design both laterally and longitudinally, with the only braced member being on the frame elevation under the main canopy.

Several logistical challenges had to be managed during the construction of the steel frame, as the structure is situated above an existing basement vehicle ramp. The basement, which serves as a car park for an adjacent building, remained operational throughout the construction. Above ground, the site was very confined, with much of the available space taken up by the new building's footprint.

Temporary movement and deflection monitoring sensors were installed within the basement to ensure the site's 70-tonne capacity mobile crane was always positioned and did not overload the substructure. Based around a regular 8m column spacing, the back elevation columns are directly supported on an existing basement retaining wall, with the side elevation columns supported off a combination of a longitudinal ground level transfer beam, together with a short span balanced cantilever truss spanning between the subterranean columns of the piazza ground floor.

In addition to providing the scheme with its integral aesthetic look, structural steelwork was chosen for its speed of construction. The material also creates a lighter structural frame than many other forms of construction, an important consideration since the new building is positioned and founded on an existing car park substructure.

### Judges' comment

One could be forgiven for considering this a relatively modest, straightforward project such is the quality of the design and construction achieved in response to the significant complexities that literally underly it. The efforts and commitment of the entire team have been amply rewarded in this fine project.