



Link Bridge for NEXT plc warehouse in South Elmsall, Doncaster

Client

Next plc

Contractor

Bowmer and Kirkland

Architect

PHP Architects

Steelwork Design

Caunton Engineering

Engineer

Adept Civil and Structural

Steel Tonnage

490 tonnes

Caunton supplied the steelwork for the Next plc warehouse at South Elmsall. Information is available on a separate project data sheet.

The link bridge is a structure that is totally independent from the main E3 warehouse but links the new warehouse to the existing Next facility over a public highway.

This meant that the bridge was classified as a highways structure and had to go through the approval process for a bridge with the local authority. The bridge itself is constructed of truss sides and has multiple spans of varying lengths. It is approx. 230m long with clear spans of up to 60m. and generally a 5m deep truss which was bolted together on site. The bridge has a composite metal decking floor but is primarily designed to carry a conveyor system from one building to the other and a suspended garment hanging system.

There is a structural movement joint in the bridge as there is a considerable change in direction of the structure to suit the layout of the site. This involves having a double frame arrangement and a physical gap between the structures which was designed to accommodate any thermal expansion and/or wind movement. At the far end of the bridge it interfaces with the existing high bay structure and an amount of site works were required to trim into this structure to suit the conveyors.

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