



# caunton

ENGINEERING

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Steelwork for

# Major Projects



Museum of Liverpool

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Caunton is one of the UK's leading steelwork contractors, offering a one stop construction solution. Specialising in the design, 3D Tekla modelling, fabrication and erection of structural steelwork Caunton Engineering can give a first class service every step of the way.

We are a family owned company, established in 1969 and we have since proven to be a progressive pioneer of fully automated manufacture, information technology and innovation.

Our Nottingham based production facility employs some of the most up to date CNC machinery, a state of the art painting facility, within our 150,000 sq foot plant on a 42 acre site.

## New Museum of Liverpool

The Fourth Grace built to celebrate the European Capital of Culture



As the photo shows Caunton supplied the structural steelwork on the new landmark museum for Liverpool. Located at Pierhead, right on the Mersey waterfront—a World Heritage Site too- and next door to the Liver Building, the Museum is set to become an icon for this great city.

Caunton erected some 2000te of structural steelwork, working first off, and away from, massive concrete cores. The total floor area of this three storey museum will be 10,000 sq. m upon completion and will include an impressive central atrium. Construction is founded on a 4m deep cellular raft and involves a complex yet traditional steel frame.

The new £65m museum is to take over from the

existing Museum of Liverpool Life, which has been attracting an increasing number of visitors for ten years. Client New Museums of Liverpool, NML, believe this popular museum is too small to house and display its huge urban history collections satisfactorily. By building the new landmark museum, Liverpool will follow in the footsteps of previous European Capitals of Culture, Graz and Cork, which both had iconic buildings built to coincide with the title.



**Client:** New Museums of Liverpool  
**Main Contractor:** Pihl-Galliford Try JV  
**Engineer:** Buro Happold  
**Architect:** AEW Architects & Designers  
**Quantity Surveyor:** MGB Quantity Surveyors Ltd  
**Tonnage:** 2,000 tonnes

## North Stand, Leicester Tigers Stadium

New stand for Rugby Union's best supported club

Caunton supplied and erected the steelwork for the new North Stand of one of rugby's best supported teams, Leicester Tigers. The stand itself is part of an ambitious 10-year programme to redevelop its Welford Road ground into a modern 30,000 seat stadium complete with a raft of facilities.

The logistical challenge for this project was that the club needed to retain operation of all four sides of the ground during the rugby season. To address this, Caunton erected the steelwork for the new stand's roof including a 108m long king truss and the upper portion of the stand above the old wooden stand. The previous stand was then demolished to clear the ground for the lower level to be infilled.

was delivered to site in more than 140 separate pieces. It was assembled on ground and then erected in one tandem lift during a long 15 hour procedure.

The new stand features a number of amenities and below the seating area it has four internal levels. The ground floor comprises the main concourse and entrance area as well as a 700-people capacity match day bar. Above this on the first floor there is a 1,000-seat function suite, a second floor concourse and a third floor plant area.



The impressive 108m long truss, which is visible for miles around, is 35m high by 12m deep and

**Main Contractor:** Galliford Try  
**Engineer:** URS Corporation  
**Architect:** AFL Architects  
**Tonnage:** 1,000+ tonnes

The impressive new stand is 24m high compared to the 8.5m high stand originally built in the 1920's. An ambitious yet highly successful contract by Caunton.

# Eurocentral Business Park - Glasgow

**Ten individual office buildings providing a million square feet of office accommodation**

Caunton worked on major contractor Bowmer & Kirkland's largest ever scheme, the Eurocentral Business Park in Glasgow. The scale of the scheme was huge, with B&K's ten individual office buildings providing 85, 000 sq.m (approx one million sq.ft) of accommodation in a landscaped setting.

Work started with the demolition of the former Chunghwa Picture Tubes factory on the site in Lanarkshire which made way for the overall £330



**Main Contractor:** Bowmer & Kirkland  
**Engineer:** Struer Consulting Engineers  
**Architect:** Keppie Architecture  
**Tonnage:** 3,600 tonnes

million office and warehousing/manufacturing unit development. The 663,000 sq. ft Chunghwa facility was officially opened by The Queen in October, 1997.

It closed in 2002 and was bought a year later by Tritax Assets Ltd, as part of the company's ongoing development plans for Eurocentral. It has been replaced with 10 new office buildings, four new warehousing/manufacturing units with a range of ancillary developments including restaurant, crèche and gym facilities.

The steel frame designed by Caunton has been fashioned and fabricated to achieve a minimum thickness of floor depth plus a consistent 600m floor u/s -to-ceiling dimension. This ensures the appropriate service zone demanded by the client and his M. and E. Contractor. This then of course leads to a minimising of the overall height of the building with all the attendant economies, not least in the cost of cladding.



# B&Q Distribution Centre, Swindon

**State-of-the-art Distribution Centre for DIY Retail Giant B&Q**

Caunton provided the structural steelwork on a vast 800,000sq feet warehouse in Swindon for Household name B&Q. The developer of this massive building which comprises 2,400 tonnes of structural steelwork was Gazeley Properties and the main contractor was McLaren Construction. With a footprint of 392 metres by 183 metres, the B&Q distribution centre is to be the largest building in Swindon - a town certainly not unused to major redevelopments - Motorola and Honda being international companies manufacturing there.

The building comprises six bays, each of a 30.5 metre portal. Column height to eaves is 16 metres. There are 4,350 separate hot rolled members - columns rafters etc. But the big numbers come when one aggregates the cold rolled members used for rails and purlins. There are 29,000 of these making up a total length of 70 kilometres.

Each portal frame span is formed with 457 section rafters brought to site in 16m lengths. Two of these sections are bolted together on site and lifted into place as one piece to form each of the six spans. Overall, the structure reaches a maximum height of 16m to the eaves. There were also environmental benefits too. B&Q decided to look at their whole distribution across the country following a review and it made sense to have a new regional centre in the south for high volume products, bringing goods closer to the stores therefore improving customer service as well as reducing transport miles, transport costs and CO2 emissions. The new centre in Swindon will in fact include key environmental initiatives.



**Client:** Gazeley  
**Main Contractor:** McLaren Construction  
**Engineer:** Hydrock  
**Architect:** Chetwood  
**Tonnage:** 2,400 tonnes

# Thames Court - City of London

**Award winning seven storey office building enjoys views over The Thames**

Thames Court; An office development in the City of London with 22,000 m sq of lettable office space on 7 floors. This is a stunning building with magnificent views across the River Thames, overlooking the new Globe Theatre.

The steel frame is fire protected with intumescent paint, which was applied both at the works and on site.



For this project Caunton received the prestigious Steel Design Award and also won the BCO National Urban Workplace of the Year Award.

**Client:** Markborough Properties  
**Project Manager:** MACE  
**Engineer:** Waterman Partnership  
**Architect:** Kohn Pederson Fox  
**Tonnage:** 2,150 tonnes

# Headquarters Building for Unilever - Leatherhead

## New HQ for nation's largest consumer business

Caunton Engineering worked for major contractor Bowmer & Kirkland on a development which the two companies originally designated Project Pluto. This is now a state-of-the-art Headquarters for Unilever situated in the Leatherhead Office Park, Surrey. Unilever merged their three existing UK businesses creating the nation's biggest consumer business. Unilever House now houses the £2.5billion business for Unilever's leading brands, which include Persil, Flora, Magnum, PG Tips, Lynx, Wall's, Domestos and Hellmans.



**Main Contractor:** Bowmer & Kirkland  
**Engineer:** Mott Macdonald & Webb Yates  
**Architect:** De-novo Architecture Ltd  
**Tonnage:** 1,200 tonnes

The challenging three storey office building springs from one of two podium decks with office accommodation arranged in a number of linear wings which are wrapped around a central full height atrium and external courtyard. The space in the atrium is top-lit by a striking northlight roof comprising a series of steel stressed-skin prismatic arch trusses which span across the 18m width.

Architect De-Nova embellished the structure by introducing exposed circular columns and took advantage of the natural fall of the site to incorporate undercroft parking below the main framework. This ambitious new development took approximately two years to construct and fit out and most recently was awarded a notable Structural Steel Design Award Certificate of Merit in June 2009 where judges commented that the project showed that design & build can produce dramatic results.

# Snow Hill 2 Building, Birmingham

## A major new 17-storey office block in the centre of Birmingham

The development, comprising 43,000 square metres of office space, is known as Snowhill 2 and is the sister building – and a taller sister too at 17 storeys – to the 15 storey office block Snowhill One completed a few years ago.



Caunton are supplying over 2000te of structural steelwork together with metal decking and shear studs. The building has three concrete service cores already constructed which provide overall stability. Connection is via cast-in plates.

The building, which is in the heart of the Birmingham commercial district, is located conveniently alongside the historic Snowhill railway station, which is now the terminus for the successful and popular Chiltern Railways service from London Marylebone.

**Client:** Hines Plc.  
**Main Contractor:** Balfour Beatty Construction  
**Engineer:** Curtins Consulting Engineers  
**Architect:** Weedon Partnership Architects  
**Tonnage:** 2000 tonnes

# BIW (Body in White) Plant for Land Rover

## New half million square feet pre-paint body assembly area for UK's major 4x4 manufacturer

Caunton completed the manufacture and erection of over 3000te of steelwork for main contractor Anglo Holt Construction at the Land Rover Factory at Solihull. The project is a brownfield site extension of over half a million square feet to the BIW Facility. - BIW or Body in White is a traditional motor industry term given to the pre-paint body assembly area.

The steelwork itself comprises heavy latticed trusses spanning 18 metres supported by substantial steel columns. The design was carried out by the Caunton team as a design and build partnered contract thus permitting the time and the opportunity to make many improvements in final details to accelerate both the manufacture and the erection processes. One of the more interesting and demanding features of the design requirements was that Land Rover required a comprehensive formula for loading and load point flexibility for the building. The entire roof is in fact so designed to carry point loads of up to 6 tonnes at 3m centre points along the bottom booms of all the trusses. This is in effect 16 times greater than the loading normally specified for a standard portal frame.

**Client:** Land Rover  
**Main Contractor:** Anglo Holt Construction  
**Engineer:** Chmiel Overton Partnership  
**Tonnage:** 3000 tonnes

