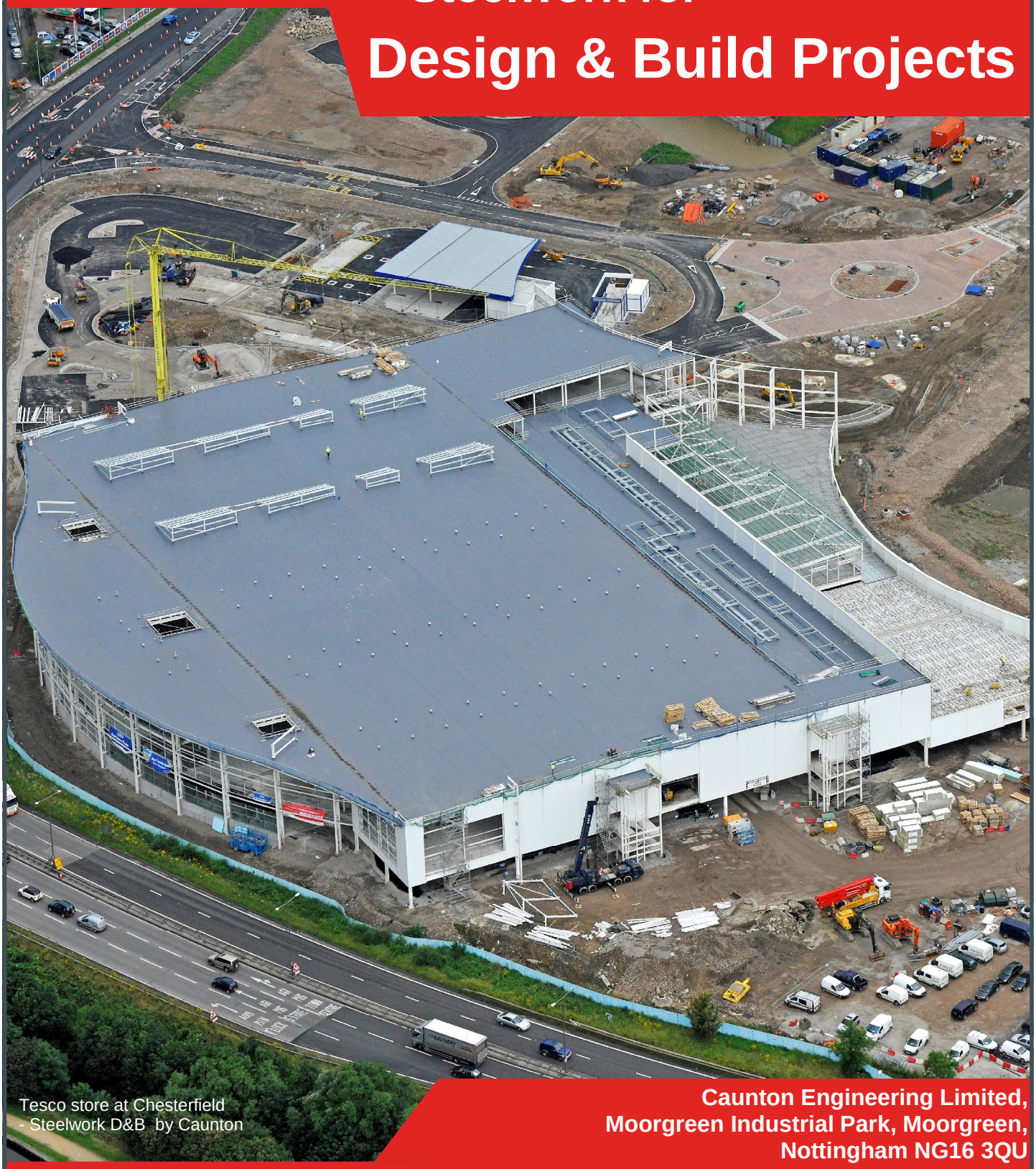
caunton
ENGINEERING

www.caunton.co.uk

Steelwork for
Design & Build Projects



Tesco store at Chesterfield
- Steelwork D&B by Caunton

Caunton Engineering Limited,
Moorgreen Industrial Park, Moorgreen,
Nottingham NG16 3QU

sales@caunton.co.uk

Tel: 01773 531 111

Fax: 01773 532 020

Company Background

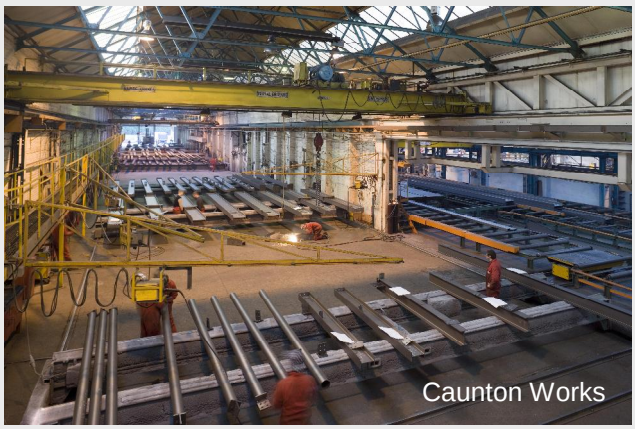
Caunton is one of the UK's leading steelwork contractors, offering a one stop construction solution. Specialising in the design, fabrication and erection of structural steelwork Caunton Engineering can give a first class service every step of the way.

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 computer numerically controlled machinery within our 150,000 sq foot plant on a 42 acre site.

Why use Design & Build?

The D&B sector has been particularly successful within the UK construction industry. D&B steelwork schemes offer more economical solutions for the whole project, combined with greater cost certainty, improved information flow, and reduced build times.


Caunton Works

Why use Steel?

Steelwork provides many major benefits - speed of construction, flexibility, excellent strength to weight properties, sustainability, durability, quality assurance, safety and cost effectiveness. The UK steel fabrication industry has unrivalled support from its trade organisation BCSA, major supplier Tata Steel (formerly Corus), and independent provider of technical expertise The Steel Construction Institute.

Why use Caunton?

We believe we have a track record second to none. The Caunton design team currently consists of eleven Structural Engineers, many with Chartered status, and fifteen Project Engineers, 3D co-ordinators and 3D modellers / detailers. The whole team is skilled in the use of the latest analysis software and 3D modelling packages, and provide fast, efficient, and economical value engineered structural solutions.

Caunton have over 25 years design and build experience in the distribution, retail, commercial, education, health, residential and car parking markets, and a selection of projects are included within this brochure.


Caunton Office & Works, Moorgreen


Caunton Design & Drawing Office

The main advantages to Design and Build generated by the steelwork contractor:

- **More Speed** - by accelerating the programme of the building or structure.
- **Less Cost** - by reducing expenditure on materials and resources through design efficiency.

Particular ways D&B achieves more speed

An experienced steelwork contractor by definition is working within the steelwork sector 24/7.

Speed benefits accruing include:

- Fast, efficient structural designs, using the latest software and design solutions.
- Using the most efficient sections, connections and general fabrication details.
- Optimum use of repetition within the design, drawing and fabrication processes.

There is a more direct interface between client/ contractor and trade contractor.

Speed benefits accruing include:

- Clients' requirements better understood and hence mobilisation sooner achieved.
- Better control of information flow.
- The approvals process is accelerated.
- Cooperation between all trade contractors is encouraged and can be more quickly established.

Particular ways D&B achieves less cost

An experienced steelwork contractor by definition is working within the steelwork sector 24/7.

Cost benefits accruing include:

- Designing the most efficient solutions and introducing standard details into the steelwork thereby saving materials, and reducing fabrication and erection costs.
- Designing simple and standard details to suit the best capabilities of the company's fabrication equipment.

Again, there is a more direct interface between client/ contractor and trade contractor.

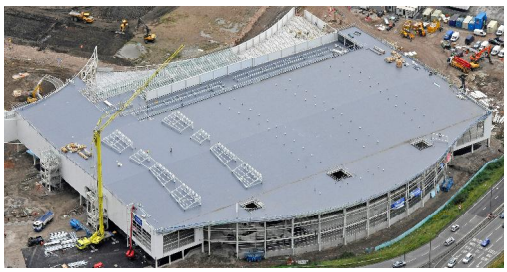
Cost benefits accruing include:

- Mobilisation better achieved with an earlier start date reducing site costs and accelerating investment returns.
- Early-stage working alongside fellow trade contractors can generate more efficient interfaces, and minimise duplication and retro working.

Projects employing Caunton's D&B skills

As over two thirds of our projects are design and build we have an impressive list of clients and projects. Below is small selection of the many design & build projects we have worked on, should you require any further information on any of the mentioned projects or the services we can provide please contact our sales department.

Tesco Store - Chesterfield



Caunton designed and supplied the steelwork for a flagship new Tesco Extra store in Chesterfield.

The store itself is designed to be on stilts to first floor level, with a 995 space car park underneath. The contract for Caunton comprised 1,825 tonnes of steelwork and the site programme was a speedy 10 weeks.

Client: Tesco Stores Plc
Main Contractor: Bowmer & Kirkland
Architect: Saunders Partnership
Tonnage: 1800 tonnes

Kingswood School, Corby

Caunton designed and supplied the steelwork for a new school built in Corby by main contractor, Interserve.

Caunton supplied over 500te of structural steelwork, on a design and build basis, for this two storey structure and its three storey central core.

Main Contractor: Interserve Building
Architect: Aedas Architects
Tonnage: 500 tonnes

The existing school is a highly regarded specialist arts college, and the new facilities will include speciality drama facilities, which include its own theatre plus an outdoor amphitheatre, a recording studio, rehearsal rooms and a mirror dance studio with sprung floors and an atrium roofed with EFTE.

Projects Employing Caunton's D&B Skills

T.J. Morris Distribution Centre - Liverpool

Caunton Engineering supplied the steelwork for an extension to TJ Morris's distribution centre on a design & build basis in Liverpool. TJ Morris, known better to the general public as Home Bargains, is recognised as a fast growing and successful retailer operating on high volume turnover selling branded goods at low prices.

Main Contractor: Bowmer & Kirkland
Architect: Alan Johnson Associates
Tonnage: 1500 tonnes

Caunton designed, fabricated and erected over 1,500 tonnes of steelwork for a 250,000sq feet extension to the distribution centre. The main body of the building consists of a central high bay warehouse with four 28.5m spans, 116m long, and a soaring 32m eaves height. There is a 12m high x 27m single span portal leading off on one side & a 12m high x 22m twin span portal leading off on the other. The depot itself is rounded off with an integral 20m span x 80m long loading canopy. Operations are topped off with the construction of a new Training Centre, a Vehicle Maintenance Unit, a Transport office & a Gatehouse.

Eurocentral Business Park - Glasgow

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

The £330m development comprised 10 new office buildings and four new warehousing/manufacturing units with a range of ancillary developments including restaurant, crèche and gym facilities.

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

Main Contractor: Bowmer & Kirkland
Architect: Keppie Architecture
Tonnage: 3600 tonnes

Blackpool Tramway Starr Gate Depot

Caunton are working on a new £20million depot to house twenty new Supertrams for Blackpool after the tramway's upgrade on a design and build basis.

The building comprises four high level and four low level roof units. Each high level unit alternates with a low level one - working down the building. A high level unit in plan is 66 metre span and 12 metre wide. The low level units are the same. The photograph shows the half way stage for the steelwork ahead of the sheeting and cladding operations.

The overall roof is supported by rafters which in the main are curved in elevation; comprising two distinct curves in two opposite directions to create the appearance of a flowing wave effect imaginatively designed in order to reflect the proximity of the sea.

The rafters, for both high and low level units, span directly between similar columns. The high level rafter comprises a single universal beam (albeit spliced) – the profile is a concave curve meeting a convex one. The low level comprises also a single universal beam (similarly spliced) – but the profile in this case comprises in the first place a straight section, before meeting first a concave profile and finally a convex. (Numerically - the radii of curvature for high level are 100 metres and 115 metres and the low level 200m and 75 m).

Manufacture of the rafters required highly sophisticated modelling, engineering and fabrication techniques. These Caunton Engineering have developed most successfully over the years.

Client: Blackpool Transport Services Ltd
Main Contractor: VolkerFitzpatrick Contractors
Architect: HW Architectural Ltd
Tonnage: 405 tonnes