

## 05 / SMALL INDUSTRIAL UNITS

Last year the value of industrial building work in Great Britain was 55% of its 2006 high of £6bn, in real terms. However, the middle of 2010 saw what may be the start of a renaissance of industrial building.

The latest GDP figures show that manufacturing made the largest contribution to growth, with output rising 1% in the third quarter following a 1.6% increase in the second quarter. Experian Business Strategies forecast real-term growth of 5% and 7% for industrial construction in 2011 and 2012 respectively in response to the recovery of exports.

Steel prices, which have since fallen back, began to increase in the first quarter 2010 and rose sharply in the second quarter in response to much higher input costs. Material prices rose 30%, adding more than £200/tonne, which manufacturers were largely able to pass on to consumers.

As a result, the erected cost of simple steel portal frames rose 30% in the first half of 2010 and more complicated industrial building steelwork rose between 22% and 23%.

Under Part L 2010 warehouses will be obliged to achieve a carbon reduction of 34% against their previous standard (see the table on page 51), compared with the average of 25% for all building types. Efficient lighting systems and optimum rooflight design are the areas most likely to achieve the necessary reduction.

The industrial unit model has an insitu reinforced concrete ground-bearing slab, steel portal frame with reinforced concrete pads, aluminium built-up cladding system to roof and walls and internal blockwork walls. Each unit has a separate entrance door and one loading door. Internally the model includes for a small WC block, basic lighting and natural ventilation.

## 06 / LOCATION FACTORS

Rates shown in the models are based on projects built in the South-east and can be adjusted using this table

Inner London	1.06
Outer London	1.14
Greater London	1.11
South-west	0.98
East Midlands	0.91
West Midlands	0.93
East Anglia	0.93
Yorkshire & Humberside	0.91
North-west	0.91
North	0.91
Scotland	0.98
Wales	0.94
Northern Ireland	0.72

## C / INDUSTRIAL UNIT COST MODEL

	£	£/m <sup>2</sup> GIFA	%		£	£/m <sup>2</sup> GIFA	%
<b>Substructure</b>	<b>82,400</b>	<b>91.56</b>	<b>16.9</b>	<b>Internal walls and partitions</b>	<b>32,650</b>	<b>36.28</b>	<b>6.7</b>
Excavation and disposal offsite: 900m <sup>3</sup> @ £23				Two-hour fire-resistant blockwork party walls: 450m <sup>2</sup> @ £63			
Reinforced concrete ground slab, hardcore, dpm, ground beams and column bases for steel frame (0.25W/m <sup>2</sup> K): 900m <sup>2</sup> @ £50				Fireproofing between blockwork and roof: item @ £1,800			
Power floating and hardener: 900m <sup>2</sup> @ £7				Metal stud partitions; including fire resisting where necessary: 50m <sup>2</sup> @ £50			
Strip foundations for party walls: 80m @ £130							
<b>Frame and upper floors</b>	<b>57,240</b>	<b>63.60</b>	<b>11.7</b>	<b>Internal doors</b>	<b>3,400</b>	<b>3.78</b>	<b>0.7</b>
Steel propped portal frame, cold rolled purlins, surface treatments (@ 40kg/m <sup>2</sup> ): 36tn @ £1,225				Laminated faced internal doorset with softwood frames and ironmongery; including fire-resisting where necessary: 5nr @ £680			
Intumescent paint to give 30-minute fire protection to steelwork: 36tn @ £315				<b>Wall finishes</b>	<b>4,335</b>	<b>4.82</b>	<b>0.9</b>
Allowance for miscellaneous works, protecting columns: item @ £1,800				Emulsion paint to blockwork and plasterboard wall surfaces generally: 1,370m <sup>2</sup> @ £3			
<b>Roof</b>	<b>53,137</b>	<b>59.04</b>	<b>10.9</b>	Ceramic wall tiles splashbacks to WC areas: 5m <sup>2</sup> @ £45			
Built up aluminium insulated roof cladding including all barge boards, trim, etc (0.25W/m <sup>2</sup> K): 950m <sup>2</sup> @ £34				<b>Floor finishes</b>	<b>675</b>	<b>0.75</b>	<b>0.1</b>
Extra for translucent rooflights to 15% of roof area (2.2W/m <sup>2</sup> K): 143m <sup>2</sup> @ £59				Screed and non-slip vinyl sheeting to WC areas: 15m <sup>2</sup> @ £45			
Mansafe access system: 80m @ £77				<b>Ceiling finishes</b>	<b>540</b>	<b>0.60</b>	<b>0.1</b>
Rainwater drainage, aluminium gutters and downpipes: 120m @ £52				Moisture-resistant plasterboard to WC with ceiling grid and paint finish: 15m <sup>2</sup> @ £36			
<b>External walls, windows and doors</b>	<b>113,290</b>	<b>125.88</b>	<b>23.2</b>	<b>Sanitary appliances</b>	<b>5,375</b>	<b>5.97</b>	<b>1.1</b>
Built up aluminium insulated wall cladding (0.35W/m <sup>2</sup> K): 520m <sup>2</sup> @ £38				Disabled WC suite including all sanitary and fittings: 5nr @ £1,075			
2.5m high inner leaf of 140 thick fairface blockwork: 380m <sup>2</sup> @ £31				<b>Disposal installations</b>	<b>1,125</b>	<b>1.25</b>	<b>0.2</b>
3000 x 4600 high steel insulated sectional overhead doors (1.5W/m <sup>2</sup> K): 5nr @ £3,150				Waste, soil and vent installation; PVCu pipework and fittings: 5nr @ £225			
Aluminium single entrance doors (3.5W/m <sup>2</sup> K): 5nr @ £1,100				<b>Hot and cold water installations</b>	<b>3,150</b>	<b>3.50</b>	<b>0.6</b>
Coated aluminium double-glazed windows (2.2W/m <sup>2</sup> K): 150m <sup>2</sup> @ £370				Hot and cold water supply to WC; on demand water heater: 5nr @ £630			
Polycarbonate canopy over entrance: 5nr @ £1,000							

## C / INDUSTRIAL UNIT COST MODEL (CONTINUED)

	£	£/m <sup>2</sup> GIFA	%		£	£/m <sup>2</sup> GIFA	%
<b>Electrical installation</b>	<b>28,650</b>	<b>31.83</b>	<b>5.9</b>	<b>Communication installations</b>	<b>9,000</b>	<b>10.00</b>	<b>1.8</b>
Small power, basic and emergency lighting: 900m <sup>2</sup> @ £20				Fire and intruder alarms: 900m <sup>2</sup> @ £10			
Supply to WC for ventilation, heating, etc: 5nr @ £1,450				<b>Builder's work in connection with services</b>	<b>620</b>	<b>0.69</b>	<b>0.1</b>
External building lighting generally: 5nr @ £680				Forming holes and chases, etc: item @ £620			
<b>Incoming services</b>	<b>14,625</b>	<b>16.25</b>	<b>3.0</b>	<b>Preliminaries and contingencies</b>	<b>76,750</b>	<b>85.28</b>	<b>15.7</b>
Allowance for incoming, electrical, gas and water services: item @ £13,500				Management costs, site establishment and site supervision. Contractor's preliminaries, overheads and profit: 13% @ £53,400			
Distribution to individual units: 5nr @ £225				Contingencies: 5% @ £23,350			
<b>Protective installations</b>	<b>900</b>	<b>1.00</b>	<b>0.2</b>	<b>Total construction cost (building only)</b>	<b>487,862</b>	<b>542.07</b>	<b>100</b>
Lightning protection, earthing and bonding: 900m <sup>2</sup> @ £1							

### NOTES

The costs in all breakdowns exclude demolitions, site preparation, abnormal works, non-fixed fittings, tenant specified work, external works, professional fees and VAT.

The cost models assume that improvements to satisfy the latest Part L requirements are made principally to the building fabric, ensuring long-term low-carbon performance and are

based on much better assurance of build quality, particularly around structural openings and the like to minimise thermal bridging, together with improved air tightness.