

## 06 / ABOUT THE COST MODEL

This cost model is based on a new-build seven-storey commercial office building in a fringe London location (as defined above). The parameters are set around a gross internal area (GIA) of 250,000ft<sup>2</sup>, including a single-storey basement, with minimal site constraints.

Overall net to gross efficiency is assumed at 77% of the overall GIA, with an

average wall-to-floor ratio of 0.40. The building's HVAC system uses four-pipe fan coils combined with air-handling units and traditional gas boilers and chillers. The external walls are predominantly unitised curtain walling with retail shop frontages at ground floor.

Price levels are set at Q3 2019.

## 07 / COST MODEL

	Element cost (£)	Cost/m <sup>2</sup> GIA	% total cost		Element cost (£)	Cost/m <sup>2</sup> GIA	% total cost
<b>SUBSTRUCTURE</b>	<b>7,516,630</b>	<b>324</b>	<b>10%</b>				
Allowance for temporary works	250,000			incl waterproofing etc: 2,500m <sup>2</sup> @ £250/m <sup>2</sup>	625,000		
Foundations - rotary bored piles (900-1,200mm diameter, average 20m depth), incl piling mat: 2,500m <sup>2</sup> @ 1,110/m <sup>2</sup>	2,775,000			Ground-floor slab - lightweight reinforced concrete on 140mm profiled metal decking: 2,500m <sup>2</sup> @ £110/m <sup>2</sup>	275,000		
Secant piled basement retaining wall: 4,950m <sup>2</sup> @ £300/m <sup>2</sup>	1,485,000			<b>SUPERSTRUCTURE</b>			
Basement excavation and disposal of inert excavated material: 13,500m <sup>2</sup> @ £75/m <sup>2</sup>	1,012,500			<b>Frame</b>	<b>6,084,660</b>	<b>262</b>	<b>8%</b>
Allowance for de-watering excavations: 1 @ £150,000	150,000			Structural steel frame, based on 70kg/m <sup>2</sup> of GIA on a 9m x 9m column grid: 1,626 tonnes @ £2,660/tonne	4,325,160		
Allowance for cavity drainage system to basement, incl sumps: 275m @ £500/m	137,500			Allowance for secondary steelwork, based on extra 5kg/m <sup>2</sup> of GIA: 116 tonnes @ £2,660/tonne	308,560		
Allowance for below-ground drainage generally: 2,500m <sup>2</sup> @ £75/m <sup>2</sup>	187,500			Fire protection to steel frame (generally 90-minute intumescent paint): 1,742 tonnes @ £570/tonne	992,940		
Reinforced concrete basement slab, 300mm thick,				Reinforced concrete core walls, average 250mm thick: 1,290m <sup>2</sup> @ £200/m <sup>2</sup>	258,000		
				Allowance for other structures (eg lift motor rooms)	150,000		
				Allowance for expansion joints and other sundries	50,000		

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» 07 / COST MODEL (CONTINUED)

	Element cost (£)	Cost/m <sup>2</sup> GIFA	% total cost		Element cost (£)	Cost/m <sup>2</sup> GIFA	% total cost
<b>Upper floors</b>	<b>2,509,860</b>	<b>108</b>	<b>3%</b>	<b>INTERNAL FINISHES</b>			
Lightweight reinforced concrete on 140mm profiled metal decking: 17,500m <sup>2</sup> @ £110/m <sup>2</sup>	1,925,000			<b>Wall finishes</b>	<b>580,650</b>	<b>25</b>	<b>1%</b>
Duragrid/GRP riser protection system: 465m <sup>2</sup> @ £460/m <sup>2</sup>	213,900			Allowance for new finishes to circulation, WC and reception areas: 23,226m <sup>2</sup> @ £25/m <sup>2</sup>			
Allowance for upstands, plinths, bund walls etc	175,000			<b>Floor finishes</b>	<b>1,509,690</b>	<b>65</b>	<b>2%</b>
Allowance for notional soft spots (one per upper floor slab)	35,000			Allowance for new finishes to circulation, WC and reception areas: 23,226m <sup>2</sup> @ £65/m <sup>2</sup>			
Allowance for slab edge detailing: 2,012m @ £80/m	160,960			<b>Ceiling finishes</b>	<b>696,780</b>	<b>30</b>	<b>1%</b>
<b>Roof</b>	<b>1,191,780</b>	<b>51</b>	<b>2%</b>	Allowance for new finishes to circulation, WC and reception areas: 23,226m <sup>2</sup> @ £30/m <sup>2</sup>			
Lightweight reinforced concrete on 160mm profiled metal decking: 2,500m <sup>2</sup> @ £120/m <sup>2</sup>	300,000			<b>FITTINGS, FURNISHINGS &amp; EQUIPMENT</b>	<b>2,721,360</b>	<b>117</b>	<b>4%</b>
RC perimeter upstand; 300 x 300mm: 150m @ £140/m	21,000			Reception desk	75,000		
Proprietary roof covering, insulation, paving slabs etc: 2,500m <sup>2</sup> @ £160/m <sup>2</sup>	400,000			Reception furniture	25,000		
Extra over for green roof (assumed 25% of roof area): 625m <sup>2</sup> @ £80/m <sup>2</sup>	50,000			Tenant directory sign board	20,000		
Allowance for enhanced finishes to terrace areas	150,000			WC cubicles, IPS, vanity units, washroom fixtures and fittings etc. (excl. MEP, sanitaryware and finishes elsewhere): 150 nr @ £13,500	202,500		
Balustrading to terrace areas: 150m @ £1,200/m	180,000			Allowance for wayfinding and statutory signage: 23,226m <sup>2</sup> @ £2/m <sup>2</sup>	46,500		
Secondary steelwork for photovoltaics and louvred plant screen: 534m <sup>2</sup> @ £170/m <sup>2</sup>	90,780			Toilet fittings (WC cubicles, vanity units etc): 23,226m <sup>2</sup> @ £85/m <sup>2</sup>	1,974,210		
<b>Stairs</b>	<b>895,000</b>	<b>39</b>	<b>1%</b>	Allowance for landlord back-of-house areas incl refuse, cycle parking, showers etc: 23,226m <sup>2</sup> @ £25/m <sup>2</sup>	580,650		
Precast concrete stairs and landings, incl finishes, painted handrails and balustrades: 36 flights @ £20,000/flight	720,000			<b>SERVICES</b>			
Feature stairs to reception areas	75,000			<b>MEP services</b>	<b>11,845,260</b>	<b>510</b>	<b>16%</b>
Allowance for ladders / stepovers / walkways etc.	100,000			MEP services installations complete incl builder's work in connection (four-pipe fan coil unit system): 23,226m <sup>2</sup> @ £510/m <sup>2</sup>			
<b>External walls</b>	<b>9,268,400</b>	<b>399</b>	<b>13%</b>	<b>Lifts</b>	<b>1,625,820</b>	<b>70</b>	<b>2%</b>
Unitised curtain walling system: 7,277m <sup>2</sup> @ £1,050/m <sup>2</sup>	7,640,900			Allowance for lifts (excl escalators): 23,226m <sup>2</sup> @ £70/m <sup>2</sup>			
Retail unit shopfront glazing at ground level: 488m <sup>2</sup> @ £1,500/m <sup>2</sup>	732,000			<b>SUBTOTAL: NET TRADE COST</b>	<b>49,058,610</b>	<b>2,112</b>	<b>67%</b>
Lift overrun and core cladding at roof level: 525m <sup>2</sup> @ £500/m <sup>2</sup>	262,500			<b>Preliminaries</b>	<b>8,585,000</b>	<b>370</b>	<b>12%</b>
Notional allowance for blockwork walling	20,000			Main contractor's preliminaries @ 17.5%			
Louvered plant screening: 280m <sup>2</sup> @ £850/m <sup>2</sup>	238,000			<b>D&amp;B risk allowance</b>	<b>865,000</b>	<b>37</b>	<b>1%</b>
Visual mock-ups and samples	75,000			Main contractor's D&B risk allowance @ 1.5%			
Building maintenance unit cleaning equipment and track	300,000			<b>OHP</b>	<b>2,633,000</b>	<b>113</b>	<b>4%</b>
<b>Windows and external doors</b>	<b>340,000</b>	<b>15</b>	<b>0%</b>	Main contractor's overhead and profit @ 4.5%			
Main entrance revolving doors: 2nr @ £80,000	160,000			<b>TOTAL SHELL AND CORE</b>	<b>61,141,610</b>	<b>2,632</b>	<b>83%</b>
Allowance for single doors (incl doors to accessible roof terrace): 6nr @ £15,000	90,000			<b>Category A fit-out works</b>	<b>8,646,000</b>	<b>372</b>	<b>12%</b>
Allowance for double-pass doors: 2nr @ £20,000	40,000			<b>TOTAL CONSTRUCTION COST</b>	<b>69,787,610</b>	<b>3,005</b>	<b>95%</b>
Allowance for loading bay door	50,000			<b>Risk allowances and design reserve</b>	<b>3,489,000</b>	<b>150</b>	<b>5%</b>
<b>Internal walls and partitions</b>	<b>1,203,940</b>	<b>52</b>	<b>2%</b>	Risk allowances and design reserve @ 5%			
Plasterboard internal walls within landlord shell and core areas, incl. access panels: 7,742m <sup>2</sup> @ £115/m <sup>2</sup>	890,330			<b>TOTAL OUT-TURN COST</b>	<b>73,276,610</b>	<b>3,155</b>	<b>100%</b>
Blockwork internal walls within basement and plant areas, incl. windposts and lintels: 2,323m <sup>2</sup> @ £135/m <sup>2</sup>	313,610						
<b>Internal doors</b>	<b>1,001,250</b>	<b>43</b>	<b>1%</b>				
Timber internal doors, incl. door frames, architraves and ironmongery: 235nr @ £2,950	693,250						
Riser doors generally within landlord shell and core areas: 108 nr @ £1,000	108,000						
Allowance for internal doors to basement and plant areas: 1nr @ £200,000	200,000						

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