09 / ABOUT THE COST MODEL

The cost model is based on a new-build, mixed-use development in the South-east of the UK. It comprises a ground-floor podium with a 9,260m² GIA, 15-storey, 200-key hotel tower and a 13,020m², 21-storey, 200-unit residential building.

The model excludes site-related costs such as the demolition of existing structures, services

diversions, infrastructure reinforcement and highways alterations. Wider exclusions include professional fees, contingency, pre-opening costs, operating supplies and equipment for the hotel and VAT.

A 1,000m² basement is assumed within the GIA in this cost model, with the balance of

the accommodation provided above ground.

The unit rates are current at December 2019 but allow for construction period inflation based on a two-year construction period.

The model assumes the works are competitively procured using a two-stage design-and-build procurement route.

10 / COST MODEL: MIXED-USE HOTEL, RESIDENTIAL AND RETAIL

-	Total (£)	£/m²	%	_	Total (£)	£/m²	%
SUBSTRUCTURE	3,943,000	177	5	Reinforced-concrete ground-floor slab: 1,798m² @ £145/m²	260,700		
Allowance for temporary works	250,000			_			
Allowance for dewatering excavations	150,000			SUPERSTRUCTURE			
Foundations; rotary bored piles (900-1200mm							
diameter, average 20m depth), incl. piling mat:				Frame	1,249,400	56	2
1,798m² @ £1,110/m²	1,995,800			Allowance for reinforced-concrete blade			
Secant piled basement retaining wall:				columns: 22,280m² @ £30/m²	668,400		
1,152m² @ £300/m²	345,600			Reinforced-concrete core walls, average			
Bulk dig: 4,855m³ @ £75/m³	364,100			250mm thick: 2,280m² @ £200/m²	456,000		
Reinforced-concrete liner wall, 300mm thick:				Allowance for other structures (eg lift motor			
576m² @ £230/m²	132,500			rooms)	75,000		
Allowance for cavity drainage to basement,				Allowance for expansion joints and other sundries	50,000		
incl sumps; 64m @ £500/m	32,000						
Allowance for below-ground drainage generally:				Upper floors	3,349,200	150	4
2,500m² @ £75/m²	187,500			Allowance for 250mm-thick reinforced-concrete			
Reinforced-concrete basement slab, 300mm				flat slab, reinforcement @ 150kg/m³:			
thick, incl waterproofing etc: 899m² @ £250/m²	224,800			19,583m² @ £145/m²	2,839,500		

10 / COST MODEL: MIXED-USE HOTEL, RESIDENTIAL AND RETAIL (CONTINUED)

_	Total (£)	£/m²	%		Total (£)	£/m²	%
Duragrid/glass-reinforced plastic riser				SERVICES			
protection system: 446m² @ £400/m²	178,400						
Allowance for upstands, plinths, bund walls, etc	195,800			MEP services installation	16,783,000	753	21
Allowance for slab edge detailing: 1,694m @ £80/r	m² 135,500			MEP services installation to hotel incl builders' work in connection: 9,260m² @ £1,259/m²	11,575,000		
Roof	897,300	40	1	MEP services installation to residential incl			
Allowance for 200mm-thick reinforced-concrete				builders' work in connection: 13,020m²			
flat slab; reinforcement @ 150kg/m³	233,700			@£400/m²	5,208,000		
Allowance for concrete perimeter upstand:							
100m@£140/m	14,000			Lifts	1,734,400	78	2
Proprietary roof covering, insulation, paving	,			Allowance for lifts to hotel (excl escalators):	, . ,		
slabs etc: 1,798m² @ £160/m²	287,700			9,260m² @ £117/m²	1,083,400		
Extra over for green roof; assumed 25% of	207,700			Allowance for lifts to residential (excl escalators):	1,000,400		
roof area: 450m² @ £80/m²	36,000			13,020m² @ £50/m²	651,000		
9	,			13,020m @ £50/m	651,000		
Allowance for enhanced finishes to terrace areas	150,000					400-	
Balustrading to terrace areas: 100m @ £1,200/m	120,000			SUBTOTAL: NETTRADE COST	42,489,700	1,907	53
Secondary steelwork for photovoltaics and							
louvred plant screen: 329m² @ £170/m²	55,900			Main contractor's preliminaries @ 17.5%	7,436,000	334	9
				Main contractor's D&B risk allowance @ 2.5%	1,248,000	56	2
Stairs	1,205,000	54	1	Main contractor's overheads and profits @ 5%	2,559,000	115	3
Precast concrete stairs and landings, incl							
finishes, painted handrails and balustrades:				TOTAL SHELL AND CORE	53,732,700	2,412	67
54 flights @ £20,000/flight	1,080,000						
Feature stair to hotel (basement to ground floor)	25,000			INTERNAL FIT-OUT			
Allowance for ladders/stepovers/walkways etc	100,000						
, movement for ladder ejecope verej vankvaye ete	100,000			Hotel fit-out	10,080,000	452	12
External walls	9,621,800	432	12	Guest rooms and guest room corridors:	10,000,000	402	
Facade; assumed precast with inset windows:	9,021,000	432	12	5,600m² @ £1,000/m²	5,600,000		
	0.766.000						
11,689m² @ £750/m²	8,766,800			Public areas: 640m² @ £1,250/m²	800,000		
Retail unit shop front glazing at ground level:	070.000			Back-of-house areas incl kitchen equipment:	000 000		
273m² @ £1,000/m²	273,000			1,360m² @ £500/m²	680,000		
Lift overrun and core cladding at roof level:				FF&E to guest rooms and public areas:			
300m² @ £350/m²	105,000			200 keys @ £15,000 each	3,000,000		
Notional allowance for blockwork walling	20,000						
Louvred plant screening: 280m² @ £650/m²	182,000			Residential fit-out	8,186,400	367	10
Visual mock-ups and samples	75,000			Private: 6,240m ² @ £900/m ²	5,616,000		
Building maintenance equipment and track	200,000			Affordable: 3,360m² @ £765/m²	2,570,400		
Windows and external doors	320,000	14	0	Retail fit-out (excluded)	0	0	0
		14	U	· · · · · · · · · · · · · · · · · · ·	U	U	U
Main entrance revolving doors: 2nr @ £50,000	100,000			Assume by incoming tenants: 640m²			
Shop/restaurant doors: 4nr @ £25,000	100,000				40.000.400		
Allowance for single doors: 4nr @ £10,000	40,000			SUBTOTAL: NETTRADE COST	18,266,400	820	23
Allowance for double-pass doors: 2nr @ £15,000	30,000						
Allowance for loading bay door	50,000			Main contractor's preliminaries @ 17.5%	3,197,000	143	4
				Main contractor's D&B risk allowance @ 2.5%	537,000	24	1
Internal walls and partitions	1,114,000	50	1	Main contractor's overheads and profits @ 5%	1,100,000	49	1
Allowance for blockwork to form demises and							
within landlord shell and core areas: 22,280m²				TOTAL FIT-OUT	23,100,400	1,037	29
@£50/m²	1,114,000						
				TOTAL CONSTRUCTION COST	76,833,100	3,449	95
Internal doors	1,114,000	50	1				
Allowance for new internal doors, incl riser doors:	-,,		•	Risk allowances and design reserve @ 5%	3,842,000	172	5
22,280m² @ £50/m²	1,114,000			Thorean over 1000 and according to the control of t	0,012,000	., _	Ü
	1,117,000			TOTAL OUTTURN COST	80,675,100	3,621	100
Fittings, furnishings & equipment (landlord areas	a) 1159 600	52	1	I STALLOUT TORN COST	50,075,100	3,021	100
	3, 1,130,000	32	'	A share and a dominante			
Wayfinding and statutory signage:	44.000			Acknowledgments		, , , , ,	D . 1
22,280m² @ £2/m²	44,600			The authors would like to acknowledge the contril	nution of Aecom coli	teagues and 3D.	Keid
Allowance for fit-out of landlord areas:				to the development of this article and cost model.			
22,280m² @ £50/m²	1,114,000						