● BUILT AI — BIDROOM IN A BOX™ — EXAMPLE OUTPUT — All client, site and project details are fictional and for illustration purposes only.

BuiltAI

● CONFIDENTIAL · INTERNAL

BIDROOM IN A BOX™ ● STAGE 04 · PRICING

Cost Stack™

Pricing Build-Up

Layer by layer. Materials, labour, plant, sub-let, prelims, risk, OH&P — every priced line item built from the ground up. Estimator's working, audit-traceable, ready for QS sign-off.

Project	B99 Malthouse Block Boiler House Replacement
Tender total	£481,954.33 baseline (excl. VAT) · 14 weeks
Cost Stack opened	10 April 2026
Closed for review	22 April 2026
Reference	CS-2026-117

PRICING AT A GLANCE

Stack Dashboard

The £481,954.33 baseline tender total broken into its eight cost layers. Materials dominate (51% — driven by the IDEAL cascade and Stokvis PHE skids). Labour and OH&P each account for ~17% and ~8% respectively. Sub-let (LARC asbestos, BMS PC Sum, crane) is 9%.

TENDER TOTAL
£481,954
baseline excl. VAT · 14 weeks

MATERIALS
51%
£245,680 · OEM-led pricing

LABOUR
17%
£81,940 · in-house ops

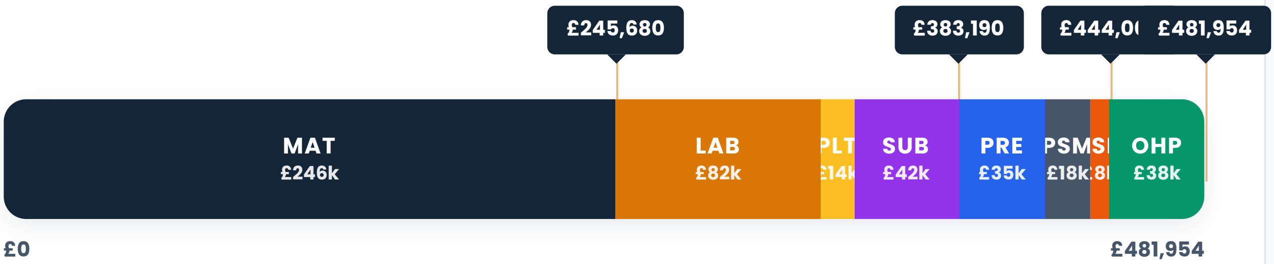
SUB-LET
9%
£41,850 · LARC, BMS, crane

OH&P
8%
£37,954 · margin recovery

THE STACK

Layer-by-Layer Build-Up

Cumulative build-up from £0 to £481,954, layer by layer. Each segment is sized proportionally and labelled with its £ value. The order reflects estimating practice: direct costs first (materials, labour, plant, sub-let), then site overheads, then provisional sums, then risk, then OH&P applied last.



■ **MAT** **Materials**

Boilers, thermal stores, PHEs, pipework, valves, BMS hardware, cable, insulation

£245,680

51.0%

■ **LAB** **Labour**

In-house operatives × hours × all-in rate (engineer £58, fitter £52, electrician £56)

£81,940

17.0%

■ **PLT** **Plant & Tools**

MEWP, mobile tower scaffold, lighting, hand tools, consumables

£13,720

2.8%

■ **SUB** **Sub-let**

LARC asbestos, BMS specialist (PC Sum), chimney scaffold, mobile crane, FA C&E, UKAS lab

£41,850

8.7%

■ **PRE** **Site Preliminaries**

Built AI's prelims share (sub-contractor basis only — GB carries PC prelims)

£35,260

7.3%

■ **PSM** **Provisional Sums**

BoQ Section I — client-led drawdown only (per Doc 23 Table 18)

£17,500

3.6%

RSK **Risk Pot**

Embedded contingency for technical / programme / commercial risks not covered by PS

£8,050

1.7%

OHP **Overhead & Profit**

Built AI overhead recovery + profit margin — line-item-applied, not bottom-loaded

£37,954

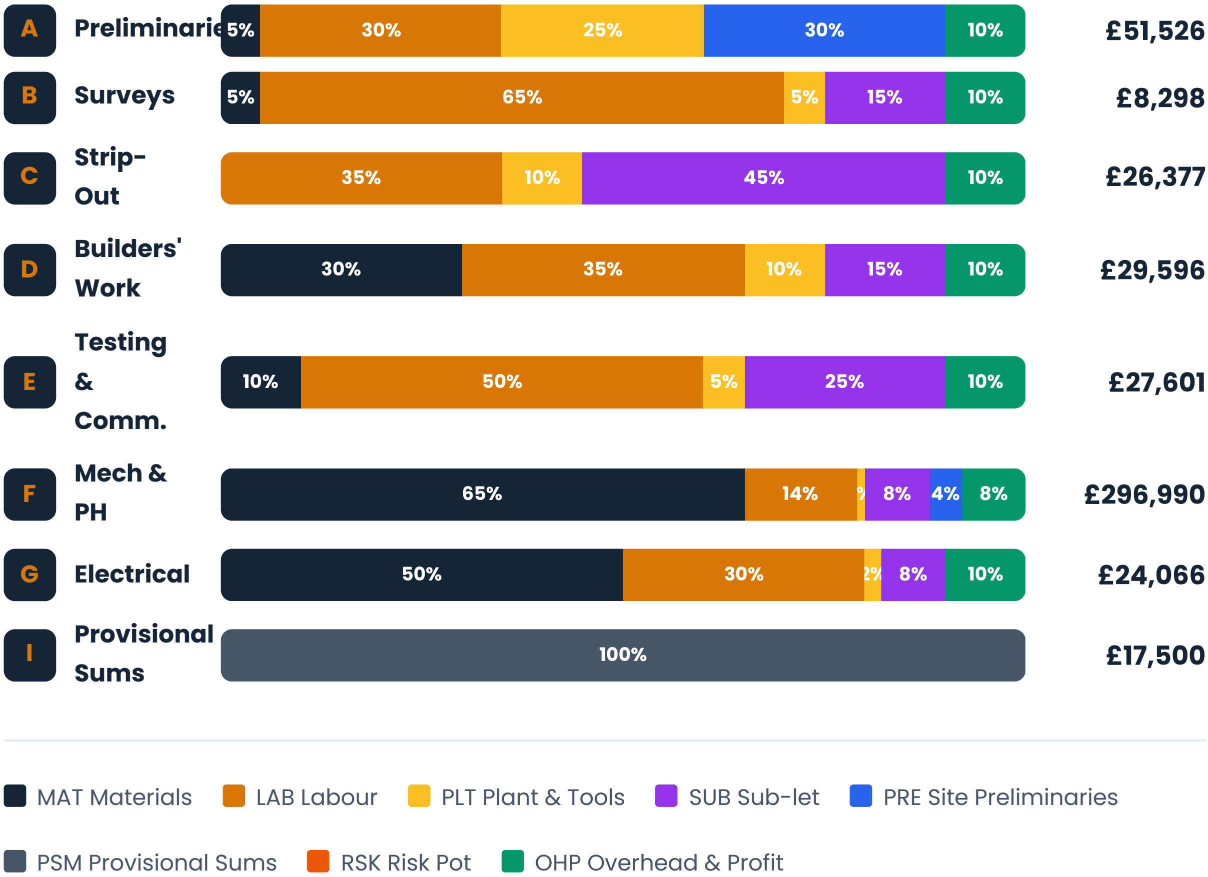
7.9%

PER-SECTION COMPOSITION

BoQ Section Layer Mix

Each BoQ section's £ total broken down into its layer composition. Section F (Mech & PH, £296,990) is heavily material-led — the IDEAL cascade and Stokvis skids dominate. Section C (Strip-Out) is sub-let-heavy — LARC asbestos removal sits there. Section A (Prelims) is labour and plant.

BOQ SECTION — LAYER COMPOSITION (% OF SECTION TOTAL)



REPRESENTATIVE LINE ITEMS

Sample Build-Ups

Five representative BoQ line items with their full layer-by-layer working. Each card shows the components (descriptions, quantities, rates, net values, layer assignment), the direct cost subtotal with layer-mix pills, the risk addition, the OH&P uplift, and the final tender rate. The first two are open by default.

F1.1

IDEAL EVO Max 2 boiler supply + install

1 No. · 5 lines · risk 4.0% · OH&P 7.5%

TENDER RATE

£28,340.18

–

> One of three boilers in the cascade. Material from SBS Quote 18-SQ0023969 Ver 1; install labour from in-house mechanical team at engineer + fitter all-in rates.

DESCRIPTION	QTY	UNIT	RATE £	NET £	LAYER
IDEAL EVO Max 2 boiler unit (SBS net price)	1	No.	22,500.00	**£22,500.00**	MAT
Mounting frame, ancillaries, gaskets, isolators	1	item	685.00	**£685.00**	MAT
Install labour — Mech Engineer (lead)	12	hrs	58.00	**£696.00**	LAB
Install labour — Mech Fitter ×2	24	hrs	52.00	**£1,248.00**	LAB
Materials handling allowance (forklift, plinth)	1	LS	220.00	**£220.00**	PLT
			Direct cost (sum of lines)	**£25,349.00**	MAT: £23,185 LAB: £1,944 PLT: £22
			+ Risk allowance (4.0%)	£1,013.96	RSK
			+ Overhead & Profit (7.5%)	£1,977.22	OHP
			TENDER RATE per No.	**£28,340.18**	

C7.1

LARC asbestos removal — thermal insulation residue

1 LS · 3 lines · risk 5.0% · OH&P 6.0%

TENDER RATE

£11,817.83

–

> Pure sub-let to a separately-appointed Licensed Asbestos Removal Contractor. Built AI carries supervision allowance and on-cost only (CAR 2012 designer duties).

DESCRIPTION	QTY	UNIT	RATE £	NET £	LAYER
LARC quote (3 quotes received; mid-quote selected)	1	LS	9,850.00	**£9,850.00**	SUB
Built AI supervision attendance — H&S adviser	8	hrs	64.00	**£512.00**	LAB
Cert. of Reoccupation handling, document review	4	hrs	64.00	**£256.00**	LAB
			Direct cost (sum of lines)	**£10,618.00**	SUB: £9,850 LAB: £768
			+ Risk allowance (5.0%)	£530.90	RSK
			+ Overhead & Profit (6.0%)	£668.93	OHP
			TENDER RATE per LS	**£11,817.83**	

A6.3

Mobile crane hire / lifting rig (Phase 4 lift-in)

1 LS · 5 lines · risk 8.0% · OH&P 7.0%

TENDER RATE

£9,579.92

–

Sub-let crane contractor for the single 5-day Phase 4 lift-in operation. Lift plan + Appointed Person + crew + crane + rigging. Weather-window risk explicit.

DESCRIPTION	QTY	UNIT	RATE £	NET £	LAYER
Crane hire — 50 t mobile, 5 days incl. mob/demob	1	wk	2,850.00	**£2,850.00**	SUB
Appointed Person (CPCS) — daily attendance	5	days	460.00	**£2,300.00**	SUB
Lifting accessories — slings, shackles, beam	1	LS	580.00	**£580.00**	PLT
Built AI Site Sup. attendance during lifts	40	hrs	56.00	**£2,240.00**	LAB
TWC plan + permit	1	LS	320.00	**£320.00**	LAB
			Direct cost (sum of lines)	**£8,290.00**	SUB: £5,150 PLT: £5 LAB: £2,560
			+ Risk allowance (8.0%)	£663.20	RSK
			+ Overhead & Profit (7.0%)	£626.72	OHP
			TENDER RATE per LS	**£9,579.92**	

F12.5

BS 5422 phenolic insulation to primary LTHW pipework

65 LM · 5 lines · risk 3.0% · OH&P 8.0%

TENDER RATE

£3,326.63

–

> Labour-heavy line item — typical mech-services insulation per linear metre. Material cost steady; labour rate dependent on access/height.

DESCRIPTION	QTY	UNIT	RATE £	NET £	LAYER
Phenolic foam insulation (50mm wall, BS 5422)	65	LM	12.50	**£812.50**	MAT
Foil jacketing, banding, ID labelling kit	65	LM	4.20	**£273.00**	MAT
Insulation fitter (skilled) — installation	22	hrs	48.00	**£1,056.00**	LAB
Insulation labourer (assist) — handling	22	hrs	32.00	**£704.00**	LAB
MEWP allocation (pro-rata of 2-week hire)	1	LS	145.00	**£145.00**	PLT
			Direct cost (sum of lines)	**£2,990.50**	MAT: £1,086 LAB: £1,7 PLT: £145
			+ Risk allowance (3.0%)	£89.72	RSK
			+ Overhead & Profit (8.0%)	£246.42	OHP
			TENDER RATE per LM	**£3,326.63**	

G1.1

Schneider Acti 9 12-way TP&N distribution board + connection

1 No. · 4 lines · risk 3.0% · OH&P 8.0%

TENDER RATE

£3,276.02

–

> Material at OEM trade discount via wholesaler; install labour by NICEIC-registered electrician. Test & certification covered separately at G9.

DESCRIPTION	QTY	UNIT	RATE £	NET £	LAYER
Schneider Acti 9 DB — 12-way 125 A TP&N + RCBOs	1	No.	1,820.00	**£1,820.00**	MAT
Sub-main cable termination kit + glands	1	set	165.00	**£165.00**	MAT
Electrician (Approved) — installation + termination	12	hrs	56.00	**£672.00**	LAB
Mate / labourer — assistance	8	hrs	36.00	**£288.00**	LAB
			Direct cost (sum of lines)	**£2,945.00**	MAT: £1,985 LAB: £960
			+ Risk allowance (3.0%)	£88.35	RSK
			+ Overhead & Profit (8.0%)	£242.67	OHP
			TENDER RATE per No.	**£3,276.02**	

> **Note on pricing strategy:** Risk allowance and OH&P are applied at line-item level, not bottom-loaded. This makes every priced line independently defensible at QS review and at variation negotiation under JCT IC 2016 cl. 5. No "general margin" hidden in inflated rates.

RISK & CONTINGENCY

Risk Pot Strategy

The £8,050 risk pot (1.7% of tender total) is allocated against specific identified risks — not a flat percentage on everything. Risks that are properly transferable via Provisional Sums are excluded from the pot to avoid double-counting.

WHERE THE £8,050 RISK POT IS APPLIED

PHASE 4 LIFT-IN

£2,400

Weather-window risk for crane operation; one-day-loss buffer included

ASBESTOS UNDERFINDS

£1,800

Presumed-rope-gasket discoveries during strip-out beyond SOCOTEC scope

EXISTING CONDITION

£1,500

Stage 4a verification surveys — gas main capacity, structural & flue void

OEM LEAD-TIME SLIP

£1,200

Buffer for IDEAL or Stokvis slipping ≤2 weeks beyond confirmed lead time

COMMISSIONING DELAY

£800

Witness commissioning re-attendance if first session cannot complete

BMS INTERFACE

£350

Trend specialist interface clarification — minor scope deltas

Excluded from Risk Pot

- **LADs uncertainty (RFI-14 parked at £500/WD):** handled via right-to-renegotiate clause in TLP §8.7 §B, not embedded in price.
- **OEM material price escalation (RFI-16 parked):** recoverable via Provisional Sum I7.1 (Contingencies — £5,000).
- **Variations beyond scope:** handled via JCT IC 2016 variation provisions, not pre-priced.
- **Long-lead supply default by OEM:** commercially insurable via supplier default insurance (not in Built AI scope).

NEXT STAGE

Hand-Off to Last Look™

Cost Stack closed and signed off. Layer build-up reconciles to £481,954.33 against the priced BoQ Rev 1. Two-pass QS review complete (Estimator + Commercial Mgr). The stack is now ready for the final pre-submission gate.

Cost Stack outputs handed to Last Look™: (1) Layer build-up £481,954.33 reconciled to BoQ Rev 1 (delta £0); (2) Per-section composition validated against BoQ subtotals; (3) 5 representative line-item build-ups documented; (4) Risk pot £8,050 allocated against 6 named risks; (5) OH&P 8% applied at line-item level (not bottom-loaded); (6) 6 VE options independently priced and documented (max saving £56,737).

Cost Stack sign-off checks

- ✓ £481,954.33 baseline reconciled to BoQ Rev 1 (delta £0.00)
- ✓ 8 cost layers documented with traceable working
- ✓ Material rates verified against OEM quotes (SBS, Stokvis, Flamco)
- ✓ Labour rates current — Built AI Mar 2026 rate card applied
- ✓ Sub-let allowances = 3 quotes received, mid-quote priced
- ✓ Question Time pricing-relevant outcomes incorporated
- ✓ Risk pot allocated against 6 named risks (not flat %)
- ✓ OH&P 8% applied at line-item level (not bottom-loaded)
- ✓ 6 VE options independently priced
- ✓ Estimator + Commercial Mgr two-pass review complete — 22 Apr 2026

Last Look™ opens 23 April 2026. The final pre-submission gate runs across all five client deliverables (CS, TLP, PDP, BoQ, PRG). With Cost Stack closed and reconciled, the QA Lead now runs the master checklist before the 24 April 17:00 BST submission deadline.

BuiltAI

• BIDROOM IN A BOX™

PRODUCTION NOTE

Cost Stack™ · Stage 04

Layer by layer — every line independently defensible

Cost Stack™ is the fourth stage of the Bidroom in a Box™ workflow. It builds every priced line item from its component layers — material, labour, plant, sub-let, prelims, provisional sum, risk, OH&P — and reconciles them to the BoQ subtotals. Risk and margin are applied at line-item level, never bottom-loaded. The output feeds Priced BoQ Rev 1, the value-engineering options register, and the final commercial position carried into Last Look™.

TENDER TOTAL	COST LAYERS	VE OPTIONS
£481k	8	6