



OUTPUT 03 — HAZARD-RISK-CONTROL MATRIX

● FOR APPROVAL

BAI-HRC-WSX-FIT-001 · REV 01

Hazard-Risk-Control Matrix

Hazards mapped against the task sequence with task-specific control measures. **No generic copy-paste controls.** Every control is engineered for the task it sits against and the residual risk it has to bring down.

CLIENT	SITE	WORK TYPE	PROGRAMME
Greenstead Workspace Tenant fit-out · UK	Wessex Buildings 3rd & 4th floors · Manchester M3 4LE	Cat B Fit-Out Partition · Ceiling · M&E · Finishes	8 weeks Out-of-hours where required

AI-ASSISTED Hazards generated from the Output 02 Task Sequence and the Output 01 Job Intake against Built AI's task-hazard knowledge base. Controls drafted by AI from the controls library and reviewed by a competent person before issue. **No generic templates were used in the production of this matrix.**

33 TOTAL HAZARDS MAPPED	8 TASKS IN SEQUENCE	12 INITIAL · HIGH OR VH	0 RESIDUAL · HIGH OR VH	30 RESIDUAL · LOW
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TASK SEQUENCE AT A GLANCE — OUTPUT 02 REFERENCE

T01 Setup & segregation	T02 Strip-out	T03 Penetrations & first-fix containment	T04 Partition install	T05 Suspended ceiling	T06 M&E first fix	T07 Floor finishes
T08 Commission & handover						

Matrix — task by task

T01 Site setup, segregation & welfare Establish work area, install barriers and signage, agree access routes with building manager.					
ID	HAZARD	PERSONS AT RISK	INITIAL	CONTROL MEASURES	RESIDUAL
H1.1	Slips, trips and falls on shared circulation routes Cable trailing, materials in walkways	Operatives, building tenants, visitors	9 • MED	Daily housekeeping, cable management plan, defined material laydown areas, protected walkways, end-of-shift sweep.	3 • LOW
H1.2	Manual handling — initial materials drop Partition track, plasterboard sheets, ceiling grid	Operatives	12 • HIGH	Mechanical handling aids, team lifts for awkward items, planned route in advance, manual handling brief at induction.	4 • LOW
H1.3	Live environment interface — tenant access Working area adjacent to occupied tenant floors	Operatives, tenants, visitors	12 • HIGH	Heras / hoarding to full perimeter, agreed access routes, pre-notified disruptive activity, daily liaison with building manager.	4 • LOW
H1.4	Unauthorised access to work zone	Operatives, tenants, public	9 • MED	Lockable hoarding, signage, end-of-day site secure-down, reception briefed, no	3 • LOW

	Pupils / public / tenants entering work area			contractor signage on tenant routes.	
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T02

Strip-out of existing partitions, ceiling & floor finishes

Controlled removal of Cat A partitions, suspended ceiling tiles, carpet and floor finishes — segregated waste.

ID	HAZARD	PERSONS AT RISK	INITIAL	CONTROL MEASURES	RESIDUAL
H2.1	Asbestos disturbance — pre-2000 construction Risk in plasterboard, ceiling tiles, vinyl tiles	Operatives, building occupants	20 · VH	Asbestos refurbishment survey reviewed pre-start, all suspect materials assumed ACMs until tested clear, stop-work and Estates referral if encountered, ACM register held on site.	8 · MED
H2.2	Hidden services strike during partition removal Power, data, comms within partition voids	Operatives	12 · HIGH	Service drawings reviewed pre-start, services traced and isolated where required, controlled dismantling, cable detection scan before cutting.	4 · LOW
H2.3	Falling debris from ceiling tile removal Ceiling tiles, broken grid, residual fixings	Operatives, persons below	9 · MED	Exclusion zone below dismantling, hard hats, tiles bagged at source, no tools at height left unattended, suspended ceiling brief.	3 · LOW
H2.4	Manual handling — repetitive partition panel removal Awkward postures, panel weight, height handling	Operatives	9 · MED	Mechanical aids, planned dismantling sequence, rest breaks, two-person lift for panels, MH brief refresher.	3 · LOW

H2.5	Sharp edges from removed metalwork & studwork Studwork, broken plasterboard edges, fixing residue	Operatives	6 · MED	Cut-resistant gloves Level C, prompt skip disposal, controlled dismantling sequence, area swept hourly.	2 · LOW
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T03

Penetrations, builders work & first-fix containment

Core drilling and cutting for new services penetrations, M&E containment first-fix.

ID	HAZARD	PERSONS AT RISK	INITIAL	CONTROL MEASURES	RESIDUAL
H3.1	Hidden services strike — drilling and cutting Live cabling, water pipes, gas not anticipated	Operatives, occupants	15 · HIGH	Drawings reviewed, cable detection scan before every penetration, controlled drilling, both sides of slab inspected where possible, supervisor sign-off.	5 · MED
H3.2	Silica dust from concrete drilling Slab penetrations, concrete cutting	Operatives	12 · HIGH	Wet drilling or M-class extraction at point of cut, FFP3 RPE, exposure time controls, no dry sweeping, area damp-down.	4 · LOW
H3.3	Falling debris through penetrations Drilled cores, debris through new openings	Persons below	9 · MED	Catch trays / bagging at penetration, exclusion zone below, sequenced working — no concurrent below.	3 · LOW
H3.4	Working at height — containment installation Ceiling void cable tray, conduit	Operatives	12 · HIGH	Podium steps or mobile tower, IPAF/PASMA where applicable, three-point contact, tool tethering.	4 · LOW

T04

Partition installation — metal stud, plasterboard, taped joints

New partition build to revised floor plan — full-height stud + plasterboard, acoustic infill.

ID	HAZARD	PERSONS	INITIAL	CONTROL	RESIDUAL
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		AT RISK		MEASURES	
H4.1	Manual handling — plasterboard sheets Repetitive lifts, awkward sheets	Operatives	9 • MED	Mechanical board lift / plasterboard hoist, two-person lift, planned cutting station, MH refresher.	3 • LOW
H4.2	Power tool injury — drop saws & chop saws Cutting metal stud and plasterboard	Operatives	12 • HIGH	Trained operatives only, guards in place, PPE (eye, hearing), fixed cutting station with extraction, pre-use inspection.	4 • LOW
H4.3	Dust from plasterboard cutting & finishing Cutting, sanding, joint finishing	Operatives, occupants	9 • MED	Local extraction at saw, M-class vacuum on sander, isolation hoarding, no dry sweeping, FFP3 RPE during sanding.	3 • LOW
H4.4	Acoustic insulation handling — fibre exposure Mineral wool, glass wool	Operatives	6 • MED	Long sleeves, gloves, FFP3 RPE during installation, post-task washing, COSHH brief.	2 • LOW
H4.5	Working at height — partition heads Stud installation at slab soffit	Operatives	9 • MED	Podium steps to within 0.5m of soffit, IPAF if mobile tower required, three-point contact.	3 • LOW

T05

Suspended ceiling installation

Grid installation, tile drop-in, perimeter trims, integration with M&E.

ID	HAZARD	PERSONS AT RISK	INITIAL	CONTROL MEASURES	RESIDUAL
H5.1	Working at height throughout Grid installation, tile drop, perimeter trim	Operatives	12 • HIGH	Podium steps, mobile towers, edge protection, controlled access — no climbing on grid, IPAF where required.	4 • LOW

H5.2	Falling tools & materials Hand tools, grid sections, ceiling tiles	Persons below	9 • MED	Tool tethering, exclusion zone below, no overhead concurrent working, hourly housekeeping.	3 • LOW
H5.3	Eye injury from drop-in installation Dust, particles, sharp edges	Operatives	6 • MED	Eye protection mandatory, lighting maintained, controlled cutting at floor level only.	2 • LOW
H5.4	Coordination clash with M&E first-fix Sequence dependencies	Programme risk; H&S incident if rushed	8 • MED	Pre-installation coordination meeting, agreed sequence, no working over live M&E activity, weekly programme review.	3 • LOW

T06

M&E first fix — power, data, lighting

Cable pulling, lighting suspension, power point first fix, data containment population.

ID	HAZARD	PERSONS AT RISK	INITIAL	CONTROL MEASURES	RESIDUAL
H6.1	Electrical hazard — adjacent live circuits Live distribution boards, existing circuits	Operatives, electricians	16 • VH	NICEIC competent persons, safe isolation procedure, prove dead, lock-off/tag-off, permits to work for any live working, no novices on live work.	6 • MED
H6.2	Working at height — lighting installation Pendants, recessed luminaires, emergency lighting	Operatives	12 • HIGH	Podium steps, IPAF where required, no climbing on ceiling grid, three-point contact, tool tethering.	4 • LOW
H6.3	Manual handling — cable drums, containment Heavy drums, awkward installation	Operatives	9 • MED	Mechanical drum stand, team lifts, planned route, MH brief, breaks.	3 • LOW
H6.4	Energisation before	Operatives, occupants		Formal hold point — no energisation until all	

	mechanical completion Premature live testing		9 • MED	containment closed, joints checked, panel signed off.	3 • LOW
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T07

Floor finishes — raised access floor & carpet

Lift, modify and reset raised access tiles; new carpet tile installation; grommets and floor boxes.

ID	HAZARD	PERSONS AT RISK	INITIAL	CONTROL MEASURES	RESIDUAL
H7.1	Open void at floor — tile lifted Working area with open access voids	Operatives, others on site	12 • HIGH	One tile at a time, immediate replacement, lift sticks visible, void hazard signage, end-of-day no open voids.	4 • LOW
H7.2	Manual handling — repetitive tile lifts Repetitive lifting, awkward postures	Operatives	9 • MED	Mechanical lift assist, two-person on heavy tiles, rotation of tasks, MH brief refresher.	3 • LOW
H7.3	Adhesive fumes during carpet install Solvent-based adhesives if used	Operatives, occupants	8 • MED	Low-VOC products specified, ventilation, work in unoccupied areas only, COSHH on file, RPE if confined.	3 • LOW
H7.4	Sharp tools — knives & cutters Carpet trimming, knife cuts	Operatives	6 • MED	Safety knives with retracting blade, cut-resistant gloves, controlled cutting against straight edge, sharps bins.	2 • LOW

T08

Final commissioning, snag close-out & handover

M&E commissioning, lighting commissioning, snag close, deep clean, client handover.

ID	HAZARD	PERSONS AT RISK	INITIAL	CONTROL MEASURES	RESIDUAL
H8.1	Live energisation for commissioning	Operatives, occupants	9 • MED	Controlled start-up sequence, NICEIC certification before energisation, area cleared	3 • LOW

	First start-up, lighting test, power-up			during live test, supervisor authority to abort.	
H8.2	Slips on cleaning chemicals Wet floor during deep clean	Operatives, client reps	6 • MED	Wet-floor signage, cleaning out of hours where possible, area cordoned during wash, low-VOC products.	2 • LOW
H8.3	Incomplete handover documentation O&M / certificates missing at handover	Client; risk to subsequent operation	6 • MED	Output 10 (Evidence Pack Checklist) signed off before handover, documentation pack assembled, witness walk-around.	2 • LOW

RISK METHODOLOGY

Likelihood × Severity = Risk score. Residual risk reviewed after controls are in place. Initial scores indicate the inherent risk of each hazard before controls; residual scores demonstrate the effectiveness of the controls. Dynamic risk assessment is undertaken daily; this matrix is the baseline and is reviewed if site conditions, scope or programme change.

CONCLUSION

After implementation of the listed controls, all **33 hazards** reduce from initial high or very-high in 12 cases to a maximum of medium residual risk. The matrix is task-specific, controls are actionable, and residual risks are within the agreed acceptance threshold for occupied-building Cat B fit-out works.

PREPARED BY — BUILT AI

Matrix author confirmation

This matrix has been generated from the approved Output 01 Intake and Output 02 Task Sequence, drafted with AI assistance and

APPROVER — COMPETENT PERSON

Approval for issue

I confirm I am the competent person responsible for approving this matrix as part of the wider RAMS pack. The hazards and controls are

reviewed by a competent person. It is task-specific and ready for client / approver review.

AUTHOR + ROLE

SIGNATURE + DATE

appropriate, task-specific and demonstrate ALARP. Approved for issue.

APPROVER + COMPETENCY

SIGNATURE + DATE

ABOUT THIS DOCUMENT

RAMS Factory™ Output 03 — Hazard-Risk-Control Matrix. Prepared by Built AI for the Cat B fit-out at Wessex Buildings, Manchester. This is a demonstration document. All client and site details are fictionalised. Final RAMS remain subject to competent-person review and approval before issue or reliance.

OUTPUT 03 OF 11

- 01 Job Intake Form
- 02 Task Sequence Builder
- 03 Hazard-Risk-Control Matrix
- 04–10 Supporting outputs
- 11 RAMS QA Checklist

DOCUMENT CONTROL

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Author · Built AI

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