



RISK ASSESSMENT & METHOD STATEMENT

Structural steel frame erection, two-storey mezzanine

Unit 7, Kelham Riverside Industrial Estate · Unit 7 warehouse, grid lines A to F, mezzanine level

CLIENT	Kelham Logistics Ltd	REFERENCE	RAMS-2026-0142
SITE	Unit 7, Kelham Riverside Industrial Estate	REVISION	2
SITE ADDRESS	Kelham Riverside Industrial Estate, Sheffield, S3 8RS	DATE OF WORKS	2026-08-17
LOCATION	Unit 7 warehouse, grid lines A to F, mezzanine level	PREPARED BY	J. Marchwood
DURATION	4 days	ROLE	Contracts Manager

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1 DESCRIPTION OF WORKS

Erection of a two-storey structural steel mezzanine frame comprising 12 UC columns, primary beams and secondary infill, within an operational distribution unit. Steel is delivered to site in pre-marked loads, offloaded by mobile crane to a designated laydown area, then erected in sequence from grid line A. Columns are set on pre-cast holding-down bolts, plumbed and temporarily guyed before primary beams are landed. Bolted connections are made from MEWPs, torqued to the connection schedule and marked on completion. The frame is not released to following trades until the erection engineer has signed the frame off as self-supporting and the temporary bracing removal sequence has been agreed in writing.

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2 WELFARE & ENVIRONMENTAL

WELFARE FACILITIES

Welfare facilities provided on site: toilets, washing facilities with hot and cold water, a drying area, a rest area with seating, drinking water, and means to heat food and water.

ENVIRONMENTAL CONTROLS

Waste segregated and removed by a licensed waste carrier. No burning of materials on site. Spill kits available for fuels and oils. Dust suppression and damping down as required. Works limited to agreed hours to control noise and disturbance.

3 METHOD STATEMENT: SAFE SYSTEM OF WORK

- 1 Confirm the permit to work, site induction and lift plan are in place. Check the exclusion zone is established and signed, and that the crane pad and outrigger positions have been proven against the ground-bearing assessment.

Site Manager

- 2 Toolbox talk covering the lift plan, the erection sequence, the exclusion zone boundary and the rescue plan for work at height. All operatives sign the briefing record before entering the work area.

Site Manager

- 3 Verify slinger/signaller and crane operator certification and the appointed person for the lift. Confirm radio channel and hand signals with the crane operator.

Appointed Person

- 4 Check all lifting accessories for current inspection and visible damage before use. Reject and quarantine anything without a legible tag or current LOLER report.

Slinger / Signaller

- 5 Offload steel to the designated laydown area, stacked on timber bearers, chocked to prevent rolling. Do not stack columns more than two high.

Slinger / Signaller

- 6 Set out and check the holding-down bolt positions and levels against the setting-out drawing. Report any deviation to the engineer before erecting any column.

Steel Erector

- 7 Erect columns in the agreed sequence from grid line A. Plumb each column, install temporary guys, and tighten holding-down bolts before the crane releases the load.

Steel Erector

- 8 Land primary beams onto the erected columns using tag lines to control the load. Operatives work from MEWPs and remain clipped on at all times while making the connection.

Steel Erector

- 9 Install secondary infill steel and temporary bracing. Do not remove any temporary bracing until the frame is complete and released in writing by the erection engineer.

Steel Erector

- 10 Torque all bolted connections to the connection schedule. Mark each completed connection and record it on the bolt-check sheet.

Steel Erector

- 11 Erection engineer inspects the completed frame, confirms it is self-supporting, and signs the frame release before any following trade is allowed to load it.

Erection Engineer

- 12 Housekeeping: clear all offcuts, bolts and packaging from the working area and the levels below. Segregate steel offcuts for recycling. Leave the exclusion zone in place until the area is handed over.

Operative

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4 PERSONAL PROTECTIVE EQUIPMENT (PPE)

PPE Item	EN Standard	Mandatory for
Hard hat	EN 397	All operatives on site
Safety footwear	EN ISO 20345	All operatives on site
High-vis vest	EN ISO 20471	All operatives on site
Safety gloves	EN 388	All operatives on site
Safety harness & lanyard	EN 361	All operatives on site
Ear defenders	EN 352	All operatives on site
Welding mask & gauntlets	—	All operatives on site

5 TOOLS & EQUIPMENT

Tool / Equipment	Voltage / Type	Category
General hand tools	—	Hand tools
Impact Wrench	18V	Power tool
Magnetic Drill (Mag Base)	110V	Power tool
Disc Cutter / Angle Grinder	110V	Power tool

6 PLANT & EQUIPMENT

Plant / Equipment	Category	Operator requirement
Mobile Crane	Plant & equipment	Competent operator
Rough Terrain MEWP	Plant & equipment	Competent operator

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7 EMERGENCY PROCEDURES

FIRST AID	Two qualified first aiders on site during all erection works. First aid kit and eyewash in the site office and a second kit in the steel gang van. Nearest defibrillator in the main unit reception.
FIRE PROCEDURE	Raise the alarm and evacuate via the nearest safe route to the assembly point. Hot works are covered by a separate permit and a fire watch is maintained for 60 minutes after the last cut. Do not attempt to fight the fire unless trained. Call 999.
ASSEMBLY POINT	Visitor car park, north of the main gate, as shown on the site induction plan.
NEAREST A&E	Northern General Hospital, Herries Road, Sheffield, S5 7AU
EMERGENCY CONTACTS	Site Manager (site mobile) · Erection Engineer (24h) · Crane hirer emergency line · Client duty manager. Full numbers issued at induction and posted in the site office.

NEAREST A&E

Scan for directions

999

Emergency services

RIDDOR Reporting

Report all incidents, near misses, and reportable injuries to the principal contractor and HSE (0345 300 9923)

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RISK ASSESSMENT: HAZARD IDENTIFICATION & CONTROL

Risk rating (Likelihood x Severity):

Low 1-4

Medium 5-9

High 10-15

Critical 16-25

Score = L x S · 1=lowest, 5=highest

#	Hazard	Consequences	Who at Risk	Initial Risk	Control Measures	Residual Risk	Res L x S	ALARP
1	Falls from scaffolding	Fatal or life-changing injury from fall; crush injuries from scaffold component failure; multiple casualties if platform collapses.	Operatives	Critical 20 L4 x S5	Scaffolding erected and inspected by CISRS competent person. Scaffold tag system, green tag before use. Edge protection on all platforms (guard rails, mid rails, toe boards). Access via internal ladder system. Daily visual inspection by scaffold user.	Medium 5	L1xS5	Yes
2	Falling objects from height	Serious head injury or fatality to personnel below; property damage; injury to public if beyond site boundary.	All site personnel	Critical 20 L4 x S5	Toe boards and brick guards on all scaffolding. Tool lanyards used at height. Exclusion zone below work area clearly signed. Fan protection on public-facing scaffolding. Hard hats mandatory in all drop zones.	Medium 8	L2xS4	Yes
3	Falls from steelwork during erection	Fatal or serious injury during erection phase; falls from beam height; secondary injury from falling tools or components.	Steel erectors	Critical 20 L4 x S5	Detailed erection sequence and method statement. Safety nets below working level. Harness and lanyard with inertia reel to designated anchor points. MEWP for bolt-up where possible. No walking along beams without fall arrest.	Medium 5	L1xS5	Yes

4	Structural collapse during erection	Multiple fatalities from uncontrolled structural collapse; serious injuries across a wide area; prolonged site shutdown and HSE investigation.	Operatives, Other trades	High 10 L2 x S5	Temporary works design by competent engineer (TWC/TWS). Erection sequence followed as per design. Bracing installed as steelwork progresses. Exclusion zone during lifts. No removal of bracing without engineer approval.	Medium 5	L1xS5	Yes
5	Crush/trap during steel erection	Crush injuries and amputation; fatality from trapped between structural members; secondary fall injury if person loses balance.	Steel erectors	High 15 L3 x S5	Lift plan for all crane lifts. Slinger/signaller CPCS competent. Tag lines on all loads. Operatives stand clear during landing. Bolted connections secured before releasing crane. Pinch point awareness briefing.	Medium 5	L1xS5	Yes
6	Crane collapse / over-turning	Multiple fatalities from crane collapse; wide-spread property destruction; potential injury to public beyond site boundary.	All site personnel	Medium 5 L1 x S5	Crane erected and inspected per LOLER. Ground bearing capacity assessed. Outrigger mats deployed. Wind speed monitoring, stand down per manufacturer limits. Certified operator (CPCS). Exclusion zone during operations.	Medium 5	L1xS5	Review
7	Dropped/swinging load from crane	Fatality or serious injury from dropped load; injuries from swinging load striking personnel; secondary structural damage.	All site personnel	High 10 L2 x S5	Lift plan prepared and briefed. Slinger/signaller appointed and competent. Lifting accessories inspected and certified. Tag lines on all loads. Exclusion zone maintained. No working under suspended loads.	Medium 5	L1xS5	Yes
8	Failure of lifting accessories (slings, shackles)	Dropped load causing fatality or serious injury; secondary injury from swinging load; property damage.	Operatives	High 10 L2 x S5	All lifting accessories LOLER inspected (6-monthly). SWL clearly marked. Pre-use visual inspection. Damaged equipment immediately removed. Correct sling angle observed. No shock loading.	Medium 5	L1xS5	Yes
9	UV radiation / arc eye from welding	Painful arc eye (photokeratitis) requiring medical treatment; long-term UV damage to vision; cataracts from chronic exposure.	Welders, Adjacent workers	High 12 L4 x S3	Auto-darkening welding helmet (shade 10-13). Welding screens deployed. Warning signs displayed. Adjacent workers informed. No viewing arc without protection. Curtain/screen minimum 2m around work.	Low 2	L1xS2	Yes

10	Welding fume inhalation	Lung cancer from chronic fume exposure; siderosis; metal fume fever; respiratory sensitisation; occupational asthma; RIDDOR reportable occupational disease.	Welders	Critical 16 L4 x S4	LEV (local exhaust ventilation) at point of welding. RPE (P3 filter minimum) where LEV insufficient. Weld in well-ventilated area or use extraction fan. Avoid welding galvanised/stainless without extraction. Health surveillance programme.	Medium 6	L2xS3	Yes
11	Fire from welding/cutting/grinding	Site fire spreading to structure; serious burns; fatality from smoke inhalation; costly property damage; HSE prosecution.	All site personnel	High 15 L3 x S5	Hot work permit issued and signed off. Fire watcher during and 60 minutes after. Fire extinguisher within 2m. Combustibles cleared 10m radius or protected with fire blankets. Smoke detection locally isolated with permit.	Low 4	L1xS4	Yes
12	Disc cutter/grinder injury	Deep lacerations and amputations; projectile injury from disc burst; eye damage; burns from sparks; fire.	Operatives	High 12 L3 x S4	Disc guards fitted and not removed. Correct disc for material and RPM. Dead-man switch functional. Full PPE: face shield, gloves, hearing protection. Hot work permit where required. Fire extinguisher within 2m.	Low 4	L1xS4	Yes
13	Hearing damage from noise above 85 dB(A)	Permanent, irreversible hearing loss; tinnitus; occupational deafness claim; RIDDOR reportable occupational disease.	Operatives, Adjacent trades	Critical 16 L4 x S4	Noise assessment completed. Hearing protection zones designated and signed. Ear defenders (minimum SNR 25) mandatory in zones. Low-noise methods selected. Time limits on high-noise exposure. Health surveillance.	Medium 6	L2xS3	Yes
14	Manual handling of steel sections/beams	Crush and impact injuries from heavy steel; back injury; fatality if section falls; lacerations from sharp edges.	Steel erectors	Critical 16 L4 x S4	Crane/telehandler for all heavy lifts. Magnetic handlers for sheet steel. Team lifts only for light sections. Sharp edges protected. Rigger gloves mandatory. Tag lines for guiding loads.	Medium 6	L2xS3	Yes
15	Pedestrian/vehicle conflict on site	Serious injury or fatality from vehicle collision; crush injuries; RIDDOR reportable; potential HSE prosecution.	All site personnel	High 15 L3 x S5	Segregated pedestrian/vehicle routes with barriers. One-way system where practical. Speed limit 5mph. Hi-vis mandatory. Banksman for all deliveries. Pedestrian crossings at conflict points.	Low 4	L1xS4	Yes

16	Slips, trips and falls on level	Fractures, head injuries and sprains; lost time injury; secondary injury from falling into other hazards or materials.	All site personnel	High 12 L4 x S3	Good housekeeping maintained throughout shift. Cable routes protected or overhead. Adequate lighting. Walkways kept clear and signed. Anti-slip surfaces on ramps. Immediate clean-up of spills.	Low 4 L2xS2	Yes
17	Adverse weather conditions	Falls from height in high winds or ice; exposure and hypothermia; lightning strike; vehicle accidents on icy site roads.	Operatives	High 12 L3 x S4	Weather forecast checked daily. Work at height suspended in high winds (>17mph for most tasks). Additional PPE for cold/wet conditions. Lightning procedure, shelter and stand down. Ice treatment on walkways.	Medium 6 L2xS3	Yes



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9 COSHH ASSESSMENT: HAZARDOUS SUBSTANCES

Substance 1: Mild Steel Welding Fume

SDS REFERENCE

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EXPOSURE ROUTE

Inhalation

RISK LEVEL

medium

CONTROL MEASURES

Eliminate where possible (mechanical fixings, prefab off-site). LEV at point of arc, on-gun or fume arms within 30cm of plume. Indoor welding always requires LEV plus RPE. Outdoor welding requires RPE as a minimum. Position to avoid breathing zone exposure. Air monitoring. Health surveillance with lung function for regular welders.

Substance 2: Stainless Steel & Galvanised Welding Fume

SDS REFERENCE

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EXPOSURE ROUTE

Inhalation

RISK LEVEL

medium

CONTROL MEASURES

Always considered higher-risk than mild steel, LEV at point of arc is mandatory and a PAPR is the default RPE. Strip galvanising back 100mm from the joint where possible. Confined space welding requires forced ventilation plus airfed RPE. Air monitoring against substance-specific WELs. Health surveillance with lung function and biological monitoring (blood/urine Cr).

10 HAVS ASSESSMENT: HAND ARM VIBRATION (CONTROL OF VIBRATION AT WORK REGS 2005)

Tool	Vibration (m/s²)	Trigger time (hrs)	Points
Angle Grinder / Disc Cutter	6 m/s²	0 hrs	0 pts
Rivet Gun	7 m/s²	0 hrs	0 pts
Impact Wrench (cordless)	5 m/s²	0 hrs	0 pts

0 pts

Daily exposure total

Below action level

EAV: 100 pts (2.5 m/s²) · ELV: 400 pts (5 m/s²)

CONTROL MEASURES

Exposure managed by rotation and by tool selection. Impact wrench used in preference to a grinder for bolt-up wherever the connection allows. Trigger times recorded on the daily HAV sheet and cross-checked weekly against the exposure points system in HSE L140.



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11 NOISE ASSESSMENT: CONTROL OF NOISE AT WORK REGULATIONS 2005

Noise source	Level dB(A)	Exposure (hrs)
Disc Cutting / Angle Grinding	95 dB(A)	0 hrs
MIG/Stick Welding	82 dB(A)	0 hrs
Steel Erection / Bolting	90 dB(A)	0 hrs

HEARING PROTECTION ZONES

Cutting bay and the 5m surrounding it are a designated hearing protection zone. Signage posted at both approaches.

HEARING PROTECTION TYPE

Ear defenders SNR 30dB provided for all operatives in the cutting bay. Ear plugs SNR 25dB available for short-duration tasks elsewhere on the erection face.

CONTROL MEASURES

Disc cutting is restricted to the designated cutting bay away from the erection face. Hearing protection is mandatory inside the bay and within 5m of it. Signed as a hearing protection zone in line with the Control of Noise at Work Regulations 2005.

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12DOCUMENT SIGN-OFF & AUTHORISATION

PREPARED BY

J. Marchwood · Contracts Manager

J. Marchwood · 2026-08-17

APPROVED BY

Awaiting approval

Signature / Date

DOCUMENT REVISION HISTORY

Rev	Date	Description	Prepared by
2	2026-08-17	Initial issue	J. Marchwood

This RAMS document has been prepared to identify hazards associated with the described works and to implement control measures to reduce risk to as low as reasonably practicable (ALARP). All operatives must read and understand this document before commencing work. Any deviation from the described method must be approved by the site supervisor. This document must be reviewed and reissued if site conditions change or new hazards are identified. Prepared in accordance with CDM Regulations 2015 and the Health & Safety at Work Act 1974.

13OPERATIVE BRIEFING & SIGN-OFF

I confirm that I have read and understood the contents of this Risk Assessment and Method Statement. Anything I did not understand has been explained to my satisfaction by the site supervisor. I agree to follow the method statement, work within the identified control measures, and wear the specified PPE at all times. I understand these instructions are provided for my safety and the safety of others on site.

Name	Role	Signature	Date & time signed
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Document status: CONTROLLED

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