

Risk Assessment Method Statement COSSH Information Operative Briefed Register 04

Site: **SIM, PH & D**

Task: **Roof Strip**

Start Date: **TBC**

Duration: **TBC**

Labour: **Various HH Smith**

Assessor: **Juan Crous**

Issued By: **Juan Crous**

Issue	Date	Comments
1	26/05/21	Initial Issue

Below is the amendment record for minor or non-material revisions or amendments that do not warrant a full re-issue of the document. All such amendments are highlighted.

Amendment No	Date	Amendment	Page/s

H.H. Smith & Sons Co. Ltd.



Site	SIM – PH&D											
Date	26/05/21				Review Date	N/A			Assessor	Juan Crous		
Task	Roof Strip											
Item	HAZARDS	WHO IS AT RISK	L	S	Risk	CONTROLS	Residual Risk					
							L	S	Risk			
1.	Working at Height (tower Scaffold) Risk of workers falling from height	Operatives	5	5	25	1. Tower scaffold Platform to be erected by competent person for safe access and egress to works. 2. Suitable edge protection at all times. 3. Scaff tag to be used, display whether tower is incomplete etc. 4. Platforms can only be erected, altered or dismantled by a competent person. 5. Platforms to be inspected before first use and findings recorded and kept on site, use scaff tag at all times. 6. For more details please see Company arrangements for Working at Height, & Tower scaffold.	1	5	5			
2.	Materials falling from height Operatives under work area struck	Operatives General Site operatives	4	5	20	1. Work area will be fenced off prior to works commencing if possible. 2. No workers to access area underneath the platform, plant whilst works are being carried out at height. 3. Erect toe boards or debris netting to stop materials from falling 4. Tie equipment down to reduce the risk of falling.	1	5	5			
3.	Manual Handling Risk of strain to workers	Operatives General Operatives	4	3	12	1. No employee to lift any object he does not feel comfortable with lifting. 2. If workers do not feel comfortable lifting object, use lifting aids or extra operatives to help with lift. 3. Wear gloves when handling timber.	1	3	3			
4.	Use of 110V electric reciprocating saw Risk of lacerations or loss of limbs	Operatives	5	5	25	1. Only competent person to operate saw. 2. Unplug saw when replacing blade. 3. Operative must always cut away from body/ limbs, do not use foot or any other part of body to hold or stabilize materials being cut as the saw can jump when cutting. 4. Inspections/ pat certificate supplied with saw from hirer, check and request if not on site. 5. Saw must only be used as per manufactures guidelines/ instructions.	1	5	5			

5.	Dust Risk of workers inhaling hazardous dust	Operatives	5	3	15	1. Workers cutting or creating dust to wear respiratory protection. 2. Operatives face fit tested. 3. Where possible cutting works will be done outside where natural ventilation will be suitable. 4. If cutting is inside & ventilation is poor (dust gathering on equipment etc, dust hanging in air) use suitable ventilation equipment to extract dust and filter air.	1	3	3
6.	Working with electrical equipment Risk of electrical shock	Operatives	4	4	16	1. Where possible hand held/ battery operated equipment will be used. 2. Only 110V equipment to be used on site. 3. Hired equipment inspection documentation to be kept on site at all times. 4. HH Smith equipment will be inspected as required.	1	4	4
7.	Slips, trips and falls Risk of workers suffering from cuts.	Operatives General Operatives	4	2	8	1. Clean works areas after each work shift. 2. Materials to be stored away from access routes 3. All nails removed from wood when stripped back.	1	2	2

Calculation of RISK LEVEL - <u>L</u> ikelihood x <u>S</u> everity = Risk (score)			
Likelihood is	1 could never happen, 2 very unlikely, 3 Possible, 4 likely, 5 very likely		
Severity is	1 very slight, 2 minor, 3 significant, 4 major, 5 fatal		
Score	1 -9 = Low	10 – 18 Medium	19-25= High

Strip slate roof

Location of works:

Power Hall roof, Science & Industry Museum, which is a Grade II-listed building.

Brief Description:

A Risk Assessment (find attached) has been carried out in order to assess the risks to employees posed by stripping a slate roof.

The arrangements will take in account the required legislations.

Sequence of works:

On arrival at site operative to park in designated car park and report to the site office for a site induction immediately.

METHOD – WORKS

Recording

1. The roof will be fully photographically recorded prior to any works; along its length and each slope in sections.
2. Roof to be fully surveyed to record height difference along the length.

Methodology for the monitoring of soft strip for above-ground built heritage (Donald Insall Associates)

1. All necessary approvals are to be obtained before commencing any intrusive works on site;
2. The agreed methodology will be reviewed with the contractor to agree the proposed programme, site visits and the use of 'hold points' for any findings requiring further discussion with MCC;
3. Photographs of all areas to be removed as part of soft strip carried out before commencing any intrusive works on site;
4. Photographs of all areas to be removed as part of soft strip carried out during works. Logs will be made to record any significant discoveries;
5. Photographs of all areas to be removed as part of soft strip carried out following works;
6. Relevant photographs and logs of the soft strip will be collated into a report and deposited in the SIM Archives and shared with MCC.

Structural monitoring works

As the roof finishes are stripped from the structure it will undergo a slight upward movement as the load on it is gradually reduced. This is expected and normal and gives no cause for concern.

The reduced roof load will lead to a corresponding reduction of the friction resistance that helps prevent the truss bearings from sliding, and there is a small risk that outward or inward lateral movement of the roof and/or wall could occur at some of the truss bearings. Due to the superior connection of the trusses to the columns the risk of possible movement at those locations is low.

To enable detection of any unexpected or excessive movement that might occur beyond agreed threshold levels as the roof finishes are removed movement monitoring equipment producing remotely accessible data in real time has been installed at the wall and column heads along the full length of the Power Hall. The movement monitoring data will be reviewed on a daily basis and if any concerning data is observed the relevant works will be halted and the relevant area of the structure inspected by the structural engineer and contractor. Works will only be allowed to proceed following the approval of the structural engineer together with the implementation of any mitigation measures that may be necessary.

Protecting historic fabric

Original roof structure and cast-iron columns will be protected with a combination of correx sheeting and timber hardboard. There will be no fixings into the existing structure. This will protect against any falling objects during the strip. However, priority will be to prevent through careful working by operatives.

The Historic Machines below will be protected from the works by scaffold crash deck.

Skips will be placed within the hoarding and sat on plywood boards to prevent any damage to cobbles. The access routes into the building and to the skips will also be protected by plywood.

Materials to be stripped (the majority are modern and date from 1979-onwards, except where stated):

- Rooflights
- Ventilation cowls
- Slates (some reused historic slates)
- Batten and counter battens
- Any felt/roof membrane
- Insulation board
- Gutter linings including lead work
- Modern Rafters
- Gutter supports
- Redundant high-level pipework

Removal of roof lights

Roof lights removed from underside, accessed via the crash deck.

Light weight tower scaffold constructed on the scaffold crash deck to be used for access.

Remove panes of glass one at time, carefully lifting to crash deck.

Remove rooflight framework by cutting using a electrical hand saw. Care to be taken when cutting near to slates / timber roof structure / cast iron columns to ensure historic fabric is not damaged.

Waste will then be transported to the ground floor via a series of shoots/lifts installed in the crash deck. From there carried to the skips externally using all terrain trolleys. Where passing over historic cobble's plywood sheeting will be used to protect them.

Removal of Slates

Ideally the existing roof finishes will be removed (and the new ones installed) in a balanced manner from ridge to eaves on all pitches simultaneously to avoid a scenario where one pitch is fully or mostly stripped before the others. Such a temporary arrangement of the roof finishes could generate asymmetrical stress distributions within the truss members, and at their bearings, and could exaggerate the roof structure distortions that we know will occur during the strip out/renewal works.

Strip main slate areas using slate ripper tool taking care not to damage slates and ensure as much as possible is reusable. Slates that are to be reused will be determined by specialist slate salvage company. Some slates will be damage when remove the fixings and some slates will not be reusable due to weathering. Load slates carefully by hand into hand carts on the crash decking. Move slates across the scaffold crash deck to the New Warehouse side of the building using the carts.

From there, carefully transport slates by hand and stack on slate pallets on the scaffold loading bays.

The section of diminishing slates is to be photographically recorded prior to removal and marked up in order to be identified clearly at a later date for reuse on the hip ends.

All cuts to be retained and stored separately to increase % reclaim and reduce wastage. And wastage will be recycled and likely used in road replacements.

Pallets to be securely wrapped and lifted down from loading bay and stored safely onsite.

Removal of Ventilation Cowls

Once the slates have been removed and the base of the cowls are fully exposed. Cut out using a metal grinder. Care to be taken when cutting near timber roof structure / cast iron columns to ensure historic fabric is not damaged.

Removal of roof build up

Batten, counter batten and insulation to be removed sectionally following slates in phases as this provides

fall protection whilst working.

Battens removed by pulling out fixings using combination of crow bars, claw or pry bar.

Any felt or membrane is to be lifted following removing of fixings.

All materials to be moved to loading bays on scaffolds where they will be disposed of into a skip via shoots.

Removal of lead flashings to gutters

To remove lead flashing where fixed into masonry, chip out the mortar holding it in place using a Plugging Chisel and Club Hammer. Strip out the section of old flashing and clean out the mortar joint using a wire brush

Pry up the internal edges of the flashing with a small prybar carefully, care to be taken around stone and brickwork.

Move to loading bays and lift to ground. This will then be recycled or sold for reuse.

Removal of Central valley Gutter

Once the valley gutter has been exposed sufficiently cut out flashing using a small grinder. Remove sections of aluminium gutter in sections. Work from the plant deck to ensure the care is taken to avoid any damage to the historic roof structure.

Removal of Modern Rafters and Gutter supports

Following the removal of the above a survey will be completed with Donald Insall to establish which rafters and gutter supports are modern. A full photographic survey will be completed to record the location of the modern rafters and gutter supports.

Access to remove these will be from the crash deck and where necessary from a tower scaffold on top of the crash deck. The surrounding structures will be protected with correx and timber hardboard.

Remove Redundant High-level Pipework

Live Services

Prior to any strip out of the fabric of the building all the services will be isolated, drained/ purged by a competent person.

It will be arranged that services contractors will attend site at the start of the project to make the building safe for strip out.

Electrical services

The electrical services to the plant will be isolated & stripped back by a competent electrical contractor.

Gas service

A competent contractor to isolate the gas back to the incoming main for the building. Once isolated the pipe work will be purged ready for HH Smith to strip back.

Water Service

Water will be isolated & drained off.

Fire Alarm

Fire alarm to be left live & operational during the project.

HH Smith will use break glass points & alarm as mean of raising an alarm in the event of an emergency/ fire.

Air con units/ Refrigerator etc.

Competent contractor to degas any units & issue a degas/ consignment note.

All services must be presumed live until proven under wise by a competent contractor.

All Contractors RA & MS will be issued & on site prior to them starting works on site.

Removal

Protection will be installed to all historic fabric within proximity of the plant to be removed, including exit routes leading to the skip.

Each item to be removed will require a sign off sheet to be completed prior to commencing. This will require sign off from Max Fordham and SIM Estates as well as M&E contractor.

Once sign off completed and protection installed, the pipework will be unfixed from structure Hand tools would be used in areas in close proximity / interfaces with historic fabric. From there it will then be cut up into smaller sections using metal saw or dismantled with hand tools. This will allow the smaller sections to be manually carried out of the building and disposed of in a skip (as above, these routes will be reviewed and adequate protection provided to historic fabric).

Health & Safety

Use of tower scaffold

A tower scaffold will be used below the work area as a working platform where required.

The surrounding structures and access/transport routes will be protected with correx and timber hardboard prior to transporting and erecting the tower scaffold.

A tower scaffold to be erected by competent operatives with the relevant qualifications.

Tower to be inspected before first use and findings recorded on the scaff tag attached to the tower.

Tower to be inspected daily and the findings recorded on the scaff tag attached to the tower every 7 days.

Tower to be inspected & findings recorded on the scaff tag after any alterations to the tower.

Tower must have toe boards and edge protection at all times.

Tower will be footed on the crash deck.

Once tower has been erected works can commence.

Housekeeping

Operatives will be briefed on the site waste management arrangements at the site induction.

All waste (packaging, off cuts, rubble etc.) created by work tasks should be kept in one place within works area ready for collection & disposal.

Waste should be collected in suitable containers & disposed of in skips.

Operatives must clear/ clean work area and surrounding areas from any unwanted materials & rubbish after every work shift or on completion of a task.

Do not store any materials or equipment on access routes or emergency escape routes.

Keep extension cables & trailing leads to corners of building at high level.

Pedestrian/operatives Access Arrangements

The site manager to agree a safe access route to the work place.

HH Smith operatives must only use the access routes as agreed with the site manager.

PPE requirements

The following PPE is a standard minimum requirement on site & must be worn at all times. Further PPE may be required as identified within task specific RA requirements.

HH Smith work areas;

- Hard Hat
- Hi visibility vest
- Safety footwear with steel mid sole & steel toe cap
- Trousers that cover legs (no shorts/ $\frac{3}{4}$ trousers)

Permit to work / Inspections

Various permits required as per RA & MS.

Task/ equipment

Any type of hot work including, welding, flame cutting, abrasive wheel creating sparks or excess heat, soldering etc.

Tower scaffold

Permit/ inspections required

Hot work permit

Tower scaff tag

Hazardous materials within building

Site manager to advice on Asbestos materials within existing buildings.

No works to commence unless a refurbishment & Demolition survey is on site or asbestos removal certification confirming that asbestos materials are not within work areas.

HH Smith operatives have attended a 1 day asbestos awareness course.

Equipment / Machinery needed (PPE required)

Equipment / Machinery

Tower scaffold

Recip saws

Timber

Hand tools

PPE Requirements

Standard Site PPE, Gloves

Standard Site PPE, eye protection & ear protection

Standard Site PPE, Gloves

Standard Site PPE, gloves

Specific Training Arrangements for equipment/plant

HH Smith Operatives to report to the site office for a site induction.

Equipment / Machinery	Specific training
Manual handling	0.5 day awareness course.
Asbestos	0.5 day awareness course.
Tower scaffold	PASMA Use as per manufacture instruction & guidance.
Recip saws	As per RA & MS Use as per manufacture instruction & guidance.
Hand tools	Use as per manufacture instruction & guidance.

COSHH Info

Timber Dust – Respiratory protection

First Aid Arrangements

Operatives will be briefed on the first aid arrangements & first aider on site at the site induction.

HH Smith Site manager & various others on site have attended a 3 day first aid at work course.

The details of the first aider & directions to nearest A&E will be displayed within the site office & canteen notice boards.

Welfare Arrangements

Operatives will be briefed on welfare arrangements at the site induction.

Operatives can use the existing welfare on site.

The W/C facilities must be kept clean, maintained and left as previously found!!

Emergency Procedures

Operatives will be briefed on emergency arrangements at the site induction.

Operatives must adhere to the emergency procedures at all times.

All Fire Escape/ break glass points/ alarms MUST be maintained at all times, do not store any materials or equipment in front of escape doors or on emergency escape routes.

Contact details

Role/ Responsible	Company Details	Contact information
Managing Director	HH Smith & Sons Co Ltd Rear of 95 Bury old Road Whitefield Manchester M45 7AY	Contact: Dave Smith Mob: 0161 280 3509 Email: info@hhsmith.co.uk
SHEQ Manager	HH Smith & Sons Co Ltd Rear of 95 Bury old Road Whitefield Manchester M45 7AY	Contact: Juan Crous Tel: 0787 295 2425 Email: jc@hhsmith.co.uk

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[illegible]

Name: _____ Signed: _____ Date: _____

RA, MS & COSHH Assessment Register

In signing this form I the undersigned confirm that I have been briefed on all aspects of the forthcoming work and fully understand the method of work and associated risk and that I have been briefed on all Site requirements and relevant PPE relating to the task.

Name of Operative	Signature Operative	Date

Site Supervisor declaration

I _____ as designated supervisor/manager can confirm that I have briefed the above operatives in all aspects of the method statement, risk assessments and the Site Health, Safety & Emergency Rules.

Signed: _____ Date: _____