



ARROWSMITH GROUP

Brunswick Mill – Structural ties



Works to Structural Ties – Exposure, Cleaning & Fire Protection

Project: Brunswick Mill

Client: Arrowsmith Group

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1. Introduction

This method statement has been prepared to discharge Condition 11 in relation to the structural ties within the listed mill building. It provides detailed methodology and material specifications for the **exposure, cleaning, and fire protection** of the existing structural ties.

All works will be undertaken with full regard for the heritage significance of the building and will follow best-practice conservation methods to ensure no unnecessary loss of historic fabric.

2. Scope of Works

The scope covers:

- Careful exposure of existing structural ties
- Inspection and assessment of conditions
- Cleaning of metal surfaces

- Corrosion protection
- Application of fire protection coatings
- Final inspection and documentation

All procedures will preserve the structural and heritage integrity of the ties and their associated fixings, plates, rods, washers, and anchorages.

3. Pre-Start Preparation

3.1 Site Survey

A detailed survey will be undertaken to locate and assess each structural tie requiring intervention.

3.2 Protection of Adjacent Fabric

Prior to works:

- Floors, wall finishes, ceilings, lintels, and historic features will be sheeted and protected.
- Dust containment sheeting will be installed in all active work zones.

3.3 Test Area

A **test exposure and cleaning area** will be carried out on a discreet tie to confirm:

- Minimum intervention method
- Most appropriate cleaning abrasiveness
- Suitability of final finishes

Approval will be obtained prior to progressing.

4. Equipment & Materials

4.1 Tools & Equipment

- Low-vibration hand tools for removing coverings/plaster
- Fine mechanical brushes
- Low-pressure micro-abrasive equipment (where required)
- HEPA vacuum extraction
- Scaffold towers or access platforms

4.2 Cleaning

- Fine glass or aluminium silicate media, selected for minimal surface impact
- Non-abrasive cleaning pads for sensitive areas

4.3 Protection & Coatings

- Zinc phosphate rust-inhibiting primer
- Approved intumescent paint system (as per Fire Strategy)
- Topcoat where required

4.4 PPE

Full PPE including gloves, masks, eye protection, protective clothing, and hearing protection.

5. Methodology

5.1 Exposure of Structural Ties

1. Carefully remove plaster, timber boxing, or secondary coverings using **non-percussive** hand tools.
2. Progress slowly to avoid damaging metal elements or historic brickwork.
3. All removed materials will be retained for inspection and recorded where required by the heritage officer.
4. Dust extraction will be used at all times.

5.2 Inspection

Once exposed:

- The structural engineer will inspect each tie.
- Corrosion, deformation, cracking, or loss of bearing will be recorded.
- Photographs will be taken before any cleaning or repairs.

5.3 Cleaning Procedure

1. Begin with **dry brushing** and gentle mechanical cleaning.
2. Where corrosion or adhered paint remains, apply **low-pressure micro-abrasive cleaning** with fine glass media.
3. Pressure will be kept to the minimum required to achieve a clean surface without altering historic metal.
4. Operators will maintain continuous sweeping motion to avoid over-cleaning.
5. All dust and debris will be vacuumed with HEPA extractors.

5.4 Corrosion Protection & Fire Protection

1. After cleaning, apply **zinc phosphate primer within 24 hours**.

2. Once cured, apply intumescent paint to achieve the fire protection ratings set out in the Fire Strategy.
 3. Dry film thickness will be recorded at all stages.
 4. A decorative topcoat will be added where specified Grey RAL 7021 as agreed
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6. Waste Management

- All debris and spent abrasive media will be collected and disposed of in accordance with environmental regulations.
 - No hazardous materials will be left on site.
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7. Health & Safety

- A full risk assessment and RAMS will be completed before works.
- All operatives will be trained in working with heritage structures.
- Proper ventilation will be provided where cleaning methods generate dust.

