Roof Repair Method Statement Date Project by June 2025 : 42 Short Row, Belper DE56 1DJ

Roof Repair Method Statement

This method statement refers to and forms part of the application for Listed Building Consent for the proposed works at 42 Short Row, Belper DE56 1DJ. To be read in conjunction with photographs & heritage statement submitted for Roof repair. Our roof works will be of a comprehensive nature and any necessary associated repairs (to the roof structure, chimneys, leadwork or rainwater goods, for example) will be undertaken at the same time.

Consideration will be given to the provision of a temporary roof to avoid damage to the building during the undertaking of the works.

Where necessary, new lead flashings will be provided at all abutments and chimney. leadwork will be checked and renewed or repaired as necessary (n.b. cement fillets alone are not acceptable, but mortar fillets are, where they are the local tradition). Where additional ventilation is provided, this must be by an agreed method, which minimises impact on the character of the roofing.

Scaffolding will aim to minimise any added load onto this historic structure or fixings into historic fabric. When bracing scaffolding, we will avoid the use of damaging masonry anchors & use 'free-standing scaffold or self -supporting scaffold with kentledge, and make use of window openings, window jamb cramps, raking support or fixing into mortar joints that are sufficiently wide to prevent damage to adjacent stone arisses.

If anchors are required, they must not be fixed close to edges of carved decorative features(none at our cottage). A strategy for the insertion and removal of fixings will be devised before scaffolding is erected. Expanded ferrous anchor sockets left in masonry will cause staining and cracking as they rust and must be removed at the end of the work. As necessary – Contractor to use rubber sleeved anchors which can be more easily withdrawn on completion of the works.

Structural Timber Repairs

On exposure and only if required - Repairs to structural timber will be made by splicing or bolting in sound replacement timber of similar scantling and species wherever possible, retaining all existing timber of historic value.

Exposed structural timbers such as oak timber framing should always be repaired in new green oak (e.g. for new elements) or kiln-dried oak (e.g. for face patching and similar small repairs). Second-hand material should not be used.

Surface treatments such as stains should not be applied to exposed new oak frame repairs. Specialist advice will be sought concerning any existing timber carrying decoration, carpenters' marks etc. that may be of historic importance.

Traditional timber repairs are preferred, and any proposed mechanical repair method to structural timbers will be approved, as should the overall structural proposals. Large sections of timber required for replacement will not be formed by laminating smaller sections. In situ resin repairs to structural timbers are not acceptable, and it is important to maintain flexibility at joints in order to allow for some movement. Shakes in structural timbers should not be filled for cosmetic reasons.

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Historic softwood, due to its production, generally has a greater resistance to fungal decay than modern softwood and therefore cutting out and replacement with modern "equivalent" should be kept to a minimum.

Defects within structural timber

The following are common timber defects found in heritage structures & Midland roofing services are aware of what to look for & how to address:

Shakes - Shakes appear naturally as green timber seasons and shrinks causing it to split along the grain. It is generally harmless but for the sake of appearance or to prevent water penetration, shakes can be filled with a proprietary filler. Where it is considered that shakes have weakened a timber it may be necessary to strengthen it, e.g. by plating or strapping.

Dry Rot - A serious type of fungal attack usually affecting softwoods. Dry rot flourishes in unventilated places with high relative humidity where the moisture content of the timber is greater than 20%. It can spread very quickly to dry timber by transmitting moisture along mycelium threads, even through plaster and masonry, eventually resulting in complete decay of timberwork. Treatment requires the application of preservatives, replacement of damaged timber and most importantly the lowering of humidity through adequate ventilation.

Wet rot - A much more common fungus than dry rot but less serious because it is more localised. Nevertheless, it can still lead to timber decay and failure. In their early stages wet and dry rot can look very similar. The most common victims of wet rot are:

- Timber in buildings not protected by a damp proof course e.g. ground floor skirtings or cellar joists.
- Leaking roofs.
- Timber in direct contact with the ground e.g. fencing posts.

- Where a painted finish has failed and allowed moisture to penetrate e.g. window frames, doors, gates and fencing.

Wet rot can be arrested by removing the moisture source. Normal prevention is to use pressure treated timber or protect against contact with moisture.

Insect attack (woodworm) - There are two types of timber destroying beetle likely to be seen on waterway structures, the common furniture beetle (Anobium punctatum) and death watch beetle (Xestobium rufovillosum). Furniture beetle generally targets sapwood in both hard and softwoods whereas death watch beetle prefers hardwoods, especially oak softened by decay. Affected softwoods can be treated with preservative but controlling death watch beetle in oak requires specialist help. Lowering the relative humidity in buildings and moisture content of timber is a significant factor in controlling attacks. Protection for new timber is by pressure treatment before use.

Existing pitched roof coverings

Before works commence and during opening up, records of the existing condition of the areas of work / dilapidation are to be kept in conjunction with the condition survey as the detailing generally should be reinstated to the existing form, particularly at eaves, ridges and verges.

Overhaul existing roof as necessary, replace defective slates/tiles etc as necessary to match the existing. Repair existing roof timbers as necessary in materials and construction details to match the existing. Where necessary, existing timbers will be inspected and treated by a specialist against insect and fungal attack.

Replacement of pitched roof coverings

Where necessary, defective roof coverings will be replaced to match the existing, typically consisting of tiles and associated ridge, verge, eaves, hip, valley, abutment and ventilation systems etc fitted in accordance with the tile manufacturer's details, suitable for the minimum recommended roof pitches and exposure. Existing ridge and hip tiles should be retained and re-set where possible or should be replaced to match the existing.

Re-slating will be carried out re-using sound existing slates or tiles from the roof and/or new tiles to match the existing and should be of an origin appropriate to the region. The tiles will be fixed with copper nails to battens that have been fixed with stainless steel nails. The preference would be not to use reused and new tiles on the same pitch. Verges, ridge and hip tiles, etc should be pointed neatly in an appropriately specified and agreed mortar designed to suit each individual location in terms of exposure and sensitivities of the masonry/ roofing.

Roof tiles / tile cladding to be fixed in accordance with manufacturer's details to 25 x 50mm treated timber battens (battens to be at least 1.2m long, nailed to each rafter and fixed over at least three rafters and spaced in accordance with tile manufacturer's details), rafters to be overlaid with un-tearable underlay's using either a non-breathable/high water vapour resistance underlay to BS EN 13707: 2004 (requires ventilation on opposing sides as detailed in guidance) or a British Board of Agreement (BBA or other third party accredited) vapour permeable breathable/low water resistance type underlay, both types to be fixed, ventilated, lapped and fitted with eaves carriers in accordance with manufacturer's details.

Leadwork

All flashings, soakers, capping's, valley and gutter linings and other weathering should be in lead, to the weights and details recommended by the Lead Sheet Association as described in the latest Lead Sheet Manuals. All flat roof coverings, including flashings into rooflights or internal wells should also be in lead.

Contractor to carefully remove disturbed lead covering by hand in stages by removal of the abutment mortar to the main house wall. All lead work to be formed from Code 5 lead sheet and fully supported on treated valley boards, etc, and to have a minimum 150mm lap joints, dressed 200mm under tiles, etc, and not to be fixed in lengths exceeding 1.5m and to be fixed in accordance with the roof cladding manufacturer's and the Lead Sheet Association recommendations.

All new and repaired flashings are to be inserted into raggles sufficiently deep to allow the raggle to be pointed with lime mortar; typically, this would be to a depth twice the width of the raggle, and square cut.

Existing raggles should be used wherever possible. Lead should be isolated from lime mortar by a protective coating such as masking tape or bituminous paint.

The use of sacrificial flashings where slating discharges into valleys and parapet gutters is encouraged. On flat roofs, hollow roll joints should not automatically be replaced with wood cored roll joints, consideration should be given to the historical context, the roof pitch and any likely foot traffic. Discreet dating of new repair work to be considered.

Appropriate provision should be made for ventilation below the lead, particularly where thermal conditions are likely to change, eg where insulation or a new heating system has been installed.

Rainwater Goods

Ineffective rainwater collection and disposal is a major source of building deterioration. Where rainwater goods are undersized, liable to blockage, badly maintained and inefficient, they pose a risk to historic buildings.

Generally, any new or replacement rainwater goods required should be in cast iron, to the original pattern. Gutters and rainwater goods originally of a different material, such as lead, should be retained unless otherwise agreed. Cast aluminium gutters may be acceptable in cases where the original section is no longer obtainable in cast iron. Appropriate new overshoots and weirs detailed to discharge water clear of hoppers and catch-pits should these become blocked.

Gutters and rainwater goods originally of a different material, such as lead, stone or timber, should be replaced accordingly, unless otherwise agreed. Installation of UPVC or similar non-traditional gutters and downpipes are not acceptable

Rainwater Disposal

Check that the existing rainwater goods are adequate to control and discharge water safely away from the building. Where sound, ensure they are clear and flowing freely, and that there is maintenance access at ground level and at key junction points above.

Where sections are broken, damaged or missing, or in non-original materials such as uPVC, replace to match original profile, detail and original material.

Ground drainage to be checked, recorded and made fully operational to ensure water is being conducted properly away from the building.

All cast-iron pipework and rhones to be prepared, primed and painted in accordance with manufacturer's written instructions using a high-performance paint specification. Paint new cast iron goods before site assembly and make good joints, chips and fixings immediately after fixing.

Particular attention should be given to preparation and paintwork at sharp arrises to fresh castings. The final colour may be selected using evidence gained in the cleaning process or to match the background fabric.

The addition of trace heating may be considered in particularly problematic or inaccessible areas.