

Belper and Milford Townscape Heritage Initiative

Guidance on Materials and Workmanship

Specification Requirements for Grant Aided Work

NOTE: As the applicant you are advised to provide your chosen contractor/s and professional adviser, if one has been appointed, with a copy of this document. This will assist them with their specification and / or estimate.

Materials and workmanship should be consistent with the grant requirements, even where a grant has not been awarded on such items. Materials should match the existing, and be traditional and of local origin, where possible, appropriate and practical. Workmanship should be of the highest standard and carried out in a traditional manner. Only materials and workmanship that match original or long established designs will be accepted as eligible for grant assistance.

Re-roofing

Generally, roof works should be of a comprehensive nature and any necessary associated repairs should be undertaken at the same time. It is important to retain as much as possible of the original roof structure, running any new timbers alongside existing.

Details of any new roof windows or skylights, roof vents, flue terminals, soil and vent pipes, aerials or solar panels, etc. should be approved before work starts.

Any proposed methods of repair to the roof structure will require approval before work starts. All details should be submitted to the local authority for their consideration.

Re-slating

Re-slating should be carried out re-using sound existing slates and/ or new natural British slates laid in courses to match the existing. Slates should be fixed with alloy or copper nails to battens, which have been fixed with stainless steel nails. Reclaimed and new materials, should not be fixed together on the same roof slope. Detailing generally should be re-instated carefully to the original form, particularly at eaves, ridges and verges. Existing ridge or hip slates should be retained and re-set where possible, or replaced in slate, clay or stone to match existing where appropriate. Verges, ridges and hip tiles etc. should be neatly pointed in gauged mortar, with a mix no stronger than 1 : 1 : 6 (cement : lime : sand).

New lead flashings should be provided at all abutments and chimneys (cement mortar fillets alone are not acceptable) and leadwork should be checked and renewed or repaired as necessary. Provision should be made for ventilating the roof space(s) by an agreed method.

Re-tiling

Re-tiling should be carried out re-using sound existing, clay tiles, plus additional matching new tiles as required, fixed as original or with copper or alloy nails to battens which have been fixed with stainless steel nails, reclaimed and new materials should not be mixed on the same roof slope. New tiles should be of natural clay, to match the existing in type, colour and texture as closely as possible and laid in similar courses.

Detailing generally should be reinstated carefully to the original form, particularly at the eaves, ridges and verges. Existing ridge and hip tiles should be retained and re-set where possible, or should be

replaced to match the existing, particularly if it is a decorative pattern. Pointing to ridge, hip tiles and verges should be neatly done in a gauged mortar with a mix no stronger than 1: 1: 6 (cement : lime: sand).

New lead flashing should be provided at all abutments and chimneys (cement fillets alone are not acceptable) and leadwork generally should be checked and renewed and repaired as necessary. Provision should be made for ventilating the roof space(s) by an agreed method.

Stone Slating

Stone slates are a valuable and diminishing resource, and loss on stripping a roof is inevitable: complete re-covering of a stone slated roof should not be undertaken unnecessarily. Where unavoidable, stone slated roofs should be recovered in good quality stone slates, re-using the existing slates as far as possible. If replacement slates are required, these should be new, natural and British (where quarries exist and appropriate new slates can be obtained) or sound second hand natural stone slates to match existing in size, colour and texture as closely as possible. The slates should be re-laid in graduated (diminishing) courses and fixed with oak pegs, or non-ferrous nails. Detailing generally should be reinstated carefully to the original form, particularly to valleys, dormers, eaves and verges.

New artificial or reconstructed “stone” slates of any type are not acceptable. (Notes for pointing, leadwork and ventilation are as for ‘re-slating’ and ‘re-tiling’).

Chimneys

Chimneys requiring repair should be reinstated or re-built accurately to the original height and profile, in materials to match the existing (stone, brick or rendered masonry, as appropriate). Re-pointing or rebuilding should be carried out as described separately.

Original details, including the original style of chimney pots, should be reinstated wherever possible.

Leadwork

All flashings, soakers, cappings, valleys and gutter linings and other weatherings should be in lead, to the weights and details recommended by the Lead Sheet Association, as described in the latest edition of the “LeadSheet Manual” with the latest addendum. Unless otherwise agreed, flat roof coverings, including internal wells and dormer windows, should also be in lead. Appropriate provision should be made for ventilation below the lead, particularly where thermal conditions are likely to change, e.g. where insulation or a new heating system has been installed.

Rainwater Goods

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

Structural Timber Repairs

Traditional timber repairs are preferred, and any proposed mechanical repair method to structural timbers must be approved, as must the overall structural proposals. Large sections of timber required for replacement should not be formed by laminating smaller sections. Generally, 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 in the frame. Shakes in structural timbers should not be filled for cosmetic reasons.

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

Repairs to structural timber should be made by splicing in sound replacement timber of a similar species wherever possible, retaining all existing timber of historic value. No surface treatment should be applied to exposed new oak frame elements. Specialist advice should be sought concerning any existing timber carrying decoration likely to be of historic importance.

Surface treatments such as stains should not be applied to exposed new oak frame repairs. Specialist advice should be sought concerning any existing timber carrying decoration, carpenters marks etc. that may be of historic importance. Where painted decoration is found it may be necessary to employ a UKIC accredited conservator to advise on significance, condition and repair.

Any mechanical repair methods proposed to structural timbers should be approved by English Heritage's structural engineers, as should the overall structural proposals.

Any infill panels of historic interest (e.g. wattle and daub) should be retained wherever possible: the form and detailing of any new infill panels required should be agreed. If previously covered in lime render, repaired timber framing generally should be re-rendered not exposed.

Stonework Repairs

Repairs to stone work should be carried out in natural stone to match the existing in both colour and texture, obtained where possible from the same quarry as the original or a local source, and a detailed specification for this must be agreed before work starts. Generally stone which has lost its structural stability, or is badly decayed should be carefully cut out and matching stone carefully pieced in. Replacement stone should be cut to the full dimensions of the existing blocks, unless otherwise agreed. Face patches should never be less than 100mm deep. Samples of any new stone to be used should be approved: the face of the new stone should be tooled to match the original unweathered finish, and all saw marks should be removed. Stone should always be laid on its natural bed, unless otherwise specified and new stonework should be laid to match the existing wall (e.g. as ashlar work or coursed squared rubble). If stone is badly eroded, replacement details will need to be agreed before work starts. Dressing off should be limited to the removal of dangerous or loose material and should be carried out with a bristle brush: chisels, particularly claw chisels, should never be used. Areas of unsound stonework should be carefully rebuilt as agreed, re-using as much of the existing as possible. Unless otherwise agreed, resin-based in situ 'plastic' repairs to stonework are not acceptable.

Stonework Repointing

Stonework should be bedded in an appropriate lime mortar mix (that is, one weaker than the adjacent masonry) and generally with a mix no stronger than a 1:2:9 (cement: lime: sand), particularly for soft stone. For more information on recommended mixes, please contact the Borough Council (Contact details at the end of this booklet). The use of putty lime rather than dry hydrated lime, is encouraged as is the preparation of course stuff (i.e. mixed sand and lime putty', kept covered until needed). The colour of the new mortar should match the existing before weathering. This should be provided by the colour of appropriate sand. Proprietary coloured mixes, or coloured pigments, should not be used. Repointing of external masonry should be kept to the absolute minimum which is structurally necessary, and comprehensive repointing for cosmetic reasons is not acceptable.

Joints should be carefully raked out manually to a depth of at least 25mm and up to 40mm, depending upon the width of the joint and flushed out with clean water. Cutting out of existing mortar should be carried out by hand and the use of mechanical cutting discs is not acceptable and may prejudice grant aid to other eligible work. The joints should be solidly filled with new mortar as far back as possible between the stones and finished flush, then brushed back with a bristle brush to expose the aggregate and the edges of the adjacent stone. Joints should on no account be struck, or finished proud of the masonry face to form 'strap' or 'ribbon' pointing or feathered over the edges of eroded blocks. Where existing stone is generally eroded, the face of the mortar should be kept back to the point at which the joint remains the original width. Repointing should not increase the width of the original joints.

Brickwork Repairs

Decayed or damaged bricks should be cut out and carefully replaced with sound bricks to match the existing in type, colour, texture and size. Where structurally necessary, agreed areas of unsound brickwork should be carefully re-built, reusing the existing bricks where possible. Unless otherwise agreed, resin based, in situ 'plastic' repairs to brickwork are not acceptable.

Repointing of external brickwork should be kept to an absolute minimum, which is structurally necessary, and comprehensive repointing for cosmetic reasons is not acceptable. Care should be taken to finish the joints to match the surrounding work and the width of the original joints should not be increased.

Brickwork Repointing

Repointing and any necessary rebuilding of the existing brickwork should be carried out in an appropriate lime mortar (that is, one weaker than the adjacent bricks), generally a mix no stronger than 1: 1: 6 (cement: lime: sand). Detailed advice about mortar mixes and lime used in repointing brickwork is already described under 'stonework re-pointing'.

The joints should be carefully raked out manually to a depth of at least 18-25mm, depending upon the width of the joints, flushed out with clean water and the new mortar pressed well in. Cutting out of existing mortar with a mechanical disc is not acceptable, and will prejudice grant-aid to other eligible work. The joints should be finished to match the original or existing joints or, unless otherwise agreed, finished flush (not struck or raised), neatly and cleanly, with the mortar brushed back as described under 'stonework repointing' to expose the edges of adjacent bricks.

Mortar for repointing should be coloured by the use of appropriate sand to match the original joints before weathering. Propriety coloured mixes or colour additives should not be used.

External Cleaning

Any external cleaning of brickwork is not normally grant-aided (see 'Guide to Eligible Works' notes, however, if agreed the appropriate cleaning should be carried out to an approved specification. Acceptable techniques will include cleaning by low pressure water washing, assisted by bristle brushing and, in certain circumstances, a proprietary chemical cleaning system appropriate to the surface and applied strictly in accordance with the manufacturer's instructions. The latter technique is not appropriate for sandstone, which generally should not be cleaned. Cleaning should always be undertaken by a specialist conservation contractor. Certain methods of cleaning, which have been successful in past grant schemes, have included low-pressure water and chalk wash (max pressure 25 psi). No abrasive or high-pressure cleaning techniques should be used, particularly unregulated grit or sand blasting. Cleaned surfaces should not be treated with any form of sealant or silicone water repellent.

External Render and Stucco

Re-rendering and render repairs generally should be carried out to match the historic finish, in a lime mortar mix no stronger than 1:1:6 (cement : lime : sand): a weaker mix, of 1:2:9 or 1:3 lime: sand may be appropriate on a soft background. or in sheltered positions. The mix chosen should match the strength of the original rendering or stucco, unless otherwise agreed

New rendering should be applied in three coats, and no metal beads or stops should be used externally; arises and angles should be formed in the traditional manner. Crack's in existing render should be cut back to the masonry face and the surrounding render undercut to provide a key.

Cornices, window surrounds and other mouldings should be re-run with a template in the traditional manner, to the full original profile and accurately formed. Mouldings should be copied from an undamaged existing section cleaned of all paint. Other decorative features should be reinstated carefully to the original pattern. It is important for all existing features requiring repair to be recorded by photographs, drawings and templates, if necessary, before work starts. Coursing (or blocking) lines should be reinstated in areas of new render, where appropriate.

Subsequent redecoration of rendered areas should be with traditional lime wash or mineral pigments where appropriate, otherwise with a smooth, permeable masonry paint system. Textured or impermeable paint finishes are not acceptable. The proposed colour scheme for redecoration should be agreed.

Windows, Doors and External Joinery

Existing windows and or external doors should be retained and carefully, repaired wherever possible, it is important to retain and repair surviving early casements. If replacement is unavoidable, the windows should be accurate replicas of the original design, in pattern, material and detail. Timber sections, especially mouldings, should be to the original profile: this is of particular importance for glazing bars and meeting rails to sash windows. Double hung sliding sashes should be without horns (unless the original sashes were to this pattern) and should be hung on cords with weights. Spring balance sashes are not acceptable.

Details of all new windows proposed which are not replica replacements of the existing should be agreed, prior to manufacturing. A sample window for approval will be required before any other windows are made.

Existing old (especially crown) glass should be retained and re-used in new windows, as replacement with modern float glass will always adversely affect the appearance. New doors and window furniture Should be to the original pattern. New and/or repaired external joinery, should be painted with a gloss paint system (unless otherwise agreed) and should not be stained.

Ironwork

Decorative ironwork, such as balconies, canopies or railings, should be carefully repaired or, if absolutely necessary, replaced with new to the original pattern and detail, in a similar material (unless otherwise agreed). Existing decorative ironwork requiring repair or replacement should be recorded by means of photographs or drawings before work starts, and the existing paint finish analysed to determine the original colour scheme. Drawings for any new / replacement ironwork will be required for approval.

New or repaired ironwork should be painted with an appropriate paint and to the original colour scheme to match the existing. Any alternative colour scheme proposed should be agreed.

External Works

Boundary walls, fences and gates should be repaired to match the existing, or reinstated to the original design. The installation and design any new elements must be approved.

External paving should be, in appropriate natural materials, such as Sand Stone or Derbyshire gritstone, to match the existing where relevant and laid in a traditional manner.

Special Features or Materials

Where unusual features or materials special to the building or area exist or are required, the specification for their repair or replacement, should be agreed.

Notes and Advice

For detailed guidance on repair techniques, please see:

English Heritage's Publications:

"The repair of historic buildings: advice on principles and methods" (Christopher Bereton)

"Practical Building Conservation: " Volumes 1-5 (John and Nicola Ashurst)

Guidance notes produced by the Society for the Protection of Ancient Buildings (SPAB)

Further advice and guidance can be obtained from:

Robert Thorley

e-mail: rob.thorley@ambervalley.gov.uk)

tel: 01773 841582 or

Rachael Coates

e-mail: rachael.coates@ambervalley.gov.uk

tel: 01773 841585

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