SPECIFICATION CLAUSES FOR STONE SLATE ROOFING

1 Scaffolding

1.1 The Contractor is to provide a full working scaffold supported independently from the building, with all necessary ladders, hoists, etc, to give safe access at eaves level.

1.2 All scaffolding is to be erected to comply fully with current Health & Safety legislation and to avoid actual or potential damage to the building fabric, especially window glass, from pole ends, clamps, clips or other devices. Plastic put-log caps must be used.

2 Stripping

2.1 Before any stripping commences, count and record the number of courses on each roof slope and the slate length of each course (ie, from peg hole to tail), plus any special details.

2.2 Carefully strip to ground level, stone ridges and slates and set aside all sound materials for re-use, including those which can be dressed down in size. All slates which are laminating are to be rejected, unless they can be redressed.

2.3 Carefully remove all slate laths, de-nail rafters, clean down all timbers and remove all loose debris from roof spaces.

3 Timberwork

3.1 Original timbers are to be retained if at all possible. Defrassing of worm affected timbers is to be kept to a minimum to avoid unnecessary loss of original fabric.

3.2 Replacement timber is to be dried to a moisture content of between 15 and 20% and be of matching size and species to that being replaced unless otherwise specified.

3.3 Softwood is to be pressure-impregnated with preservative before being brought onto site and any cut-ends or bored holes are to be liberally treated with insecticide/fungicide (not harmful to bats) before being built in.

3.4 All in-situ timber preservative treatment is to be carried out in accordance with the Control of Substances Hazardous to Health Regulations 1988, the Heath & Safety at Work, etc, Act 1974, and the Control of Pesticides Regulations 1986, using material not harmful to bats.

4 Slating underlay

4.1 A suitable underslating felt or membrane is to be fixed over the rafters with large headed clout nails, to perform in accordance with BS 5534, the Code of Practice for Slating & Tiling and to meet the requirements of Parts C4 and F2 of the Building Regulations for resistance to water penetration and the prevention of condensation in roofs.

4.2 The underlay is to comply with BS 747 1F or 5U and be fixed with a minimum vertical lap of 150mm and a horizontal lap of at least one rafter space.

5 Slating battens and fixings

5.1 Fix 50mm x 25mm vacuum-impregnated preservative treated, softwood counter battens, over the underlay, with 63mm stainless steel nails at 300mm centres.

5.2 Fix 50mm x 25mm vacuum-impregnated preservative treated, softwood slating battens with 63mm stainless steel nails, at spacings to suit the slate lengths. Butt ends are only to meet over rafters. If counter battens are used longer nails are required in accordance with BS 5534.

5.3 Slates are to be nailed with 50mm-63mm large headed copper or aluminium nails 8 gauge (minimum diameter 3mm) driven into the centre of the battens. Large slates to have two nails if necessary in separate holes.
OR

5.4 Slates to be hung with 7mm diameter, large-headed aluminium pegs 38mm-63mm long. Each slate to be re-drilled to suit the peg, or pegs (two) in the case of very large slates.
OR

5.5 Slates are to be hung with tapered oak or treated softwood pegs lightly hammered into pegholes to give a tight fit and with the heads cut down to avoid rocking of the next course.

5.6 Pegged slates (without underlays) are to be half-torched with hair:lime mortar, from below, to seal the joints and secure the pegs. Torching mortar is to be comprised of 1 part lime putty to 2 parts aggregate; the aggregate being 9 parts sand and/or crushed limestone and 1 part pozzolanic material such as brick-dust or PFA (pulvarised fuel ash).

The hair is to be clean, grease-free, ox, goat or yak hair in the proportions of one handful of hair to one bucketful of mortar, teased out and evenly combined with the mix.

6 Slating

6.1 Sound, salvaged slates are to be cleaned of all loose debris, sorted to length and thickness and arranged in stacks equivalent to each course length, stacked vertically on their heads (ie, pegholes downwards).

6.2 The roof is to be reslated using the sound slates previously removed, with deficiencies made up with sound slates brought on site to match in type, colour and thickness.

6.3 The reslating is to use as nearly as is practicable the same number of courses as came off and be evenly graded from the largest at the eaves to the smallest at the ridge.

6.4 Trimming of slates for valleys, etc, and redressing is to be done with hand-tools to ensure a cropped, not sawn, finish.

6.5 Each course of stone slates is to have a minimum head and side lap of 75mm to ensure the roof covering will be waterproof. The gauge is to be reduced where a course of shorter slates is introduced, to ensure the minimum head lap.

6.6 Lay a double course of slates at the eaves, with a minimum 75mm overhang, the undereaves course being fixed or bedded solidly in mortar on the wall-head and set to induce sufficient "tilt" in the first few courses that only the tails of the slates rest on the course below.

6.7 Slates are to lie evenly without rocking and be graded in thickness from one side of the roof to the other, avoiding sudden changes in thickness and gaps between courses.

7 Valleys

7.1 Valleys between adjacent roof slopes are to be renewed/formed with preservative treated softwood valley boards overlaid with non-bituminous underlay or building paper, with milled lead sheet laid in accordance with the recommendations of the Lead Sheet Association's "Lead Sheet Manual", and the trimmed edges of slates pointed in mortar.
OR

7.2 Sloping valleys are to be formed with valley slates, resting between and below the courses of the adjacent roof slopes which must have the same number and sizes of courses.

8 Ridges, abutments and verges

8.1 Abutments to parapet walls and chimneys are to be finished with Code 4 lead soakers and Code 5 flashings.
OR

8.2 Abutments to parapet walls and chimneys are to be finished with Code 4 lead soakers and a neat mortar fillet reinforced with stainless steel expanded metal mesh where it would be difficult to insert flashings and/or there are overhanging coping stones to protect the fillet.

8.3 Ridge-stones are to be relayed on a bed of 1:2:9 (cement:lime putty:yellow sand) mortar and the joints carefully finished with a minimum of exposed mortar.

8.4 Verge slates are to be bedded on 1:2:9 (cement:lime putty:yellow sand) finished with mortar pointing between the under-side of the slates and the masonry, and stippled to match the rest of the pointing.

9 Eaves gutters

9.1 Eaves gutters are to be cast-iron and to be fixed directly to the external wall face, on galvanised steel brackets or stone or timber corbels, without the use of fascia boards.
OR

9.2 Eaves gutters are to be wrought from solid timber to match the existing profile, preservative treated and erected on galvanised steel brackets or stone or timber corbels, painted inside with two coats of bituminous paint.

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www.derbyshire.gov.uk/environment/conservation