

6.0 Brickwork Repointing Methodology

MORTAR SPECIFICATION

- Mortar is to constitute 1 part Lime: 1 part soft sand: 1/2 part well graded grit aggregate (from 5mm down to 75 microns) using a moderately hydraulic Lime (St Astier NHL 3.5 or similar approved). Mixing and usage to be strictly in accordance with supplier recommendations.
- All sand shall be to BS 1199 and 1200:1976, well graded non staining clean sharp coarse sand, uncontaminated by clay/silt. Sand shall be selected so that when the mortar has dried out, the colour and texture will match that of the original mortar, unless instructed otherwise.

WEATHER PROTECTION

- No work involving the preparation of mortar shall be undertaken when the temperature is 5°C and falling, or below 4°C when the temperature is rising.
- All work is to be protected from frost and rain with hessian sheets for a minimum of 7 days or until the mortar has cured.
- In warm weather, works are to be similarly protected with hessian sheets which should be kept moist at all times to avoid curing occurring too fast.
- Any works affected by weather shall be cut out using non-mechanical methods and replaced on a like for like basis.

PREPARATION

- All joints are to be raked out to a depth of 25mm using non-mechanical methods, suggested fine-toothed saw blade or hooked knife as to not damage the existing brick, it's corners or edges. Chisels and bolsters must not be used under any circumstances.
- Mechanical tools, such as disk cutters, must not be used at any time.
- Joints are to be flushed out using clean water until the water runs clear. Where very fine joints are present, a large hypodermic syringe will be used to flush out the joints.

FILLING AND POINTING

- Mortar is to be placed into damp joints and compacted with a pointing iron/key of 30mm in diameter giving a shallow bucket handle joint. Mortar must be adequately compacted into the joints. Care should be taken to ensure lines of mortar occur at intersections, mortar should visually flow.
- Any excess or spread of mortar should be cleaned off with a clean pointing trowel. The joint should be lightly brushed as mortar is achieving its first set to remove the mechanical smoothness left by the pointing iron.

GENERAL

- Mortar should be plastic and workable but as stiff as practicably possible. It should be pushed into the back of the joints in layers, avoiding large volumes of deep filling at all times. A well filled joint is close to flush with the surrounding masonry.
- To ensure good compaction and adhesion with the joint, the mortar can be tamped firmly back with a stiff bristle brush as it starts to firm up. The timing of this is critical as if carried out too soon, fines in the mix will be drawn to the surface and will form a dense skin, inhibiting proper curing of the mortar. Once the surface of the mortar is firm, lightly scrape or brush the surface to expose the aggregate which can improve the appearance of the mortar and make joints less visible.
- Joints should be raked back to approximately 25mm, thoroughly cleaned, including the top and bottom faces of the beds, ready for the new mortar. Pointing deep joints should be done in layers of 20 – 25mm at a time, allowing the preceding layer to take up before applying the next.
- Pointing should commence from the top of the building and work down when undertaking fabric repair works.
- Attention must be drawn to those executing the works, that in some instances the joints between bricks may be extremely fine and will demand great attention to detail on site to the preparation, filling and pointing.
- The works are to be co-ordinated such that preparation is carried out to the agreed areas and made available for inspection by the Architect. The contractor must give at least 48hrs notice for inspection.
- No filling of joints shall proceed until preparation has been inspected and approved by the Architect.
- Filling and pointing is to be carried out in small areas to ensure that all operations in one area can be completed within the working day with due notice being paid to any potential adverse weather conditions.
- Works are to be kept clean from mortar spillage at all times
- All areas are to be cleaned down upon completion using clean water and bristle brushes only. Acid cleaners should not be used under any circumstances when lime mortar is present.

REMOVAL OF VEGETATION

The removal of vegetation forms part of the general upkeep and maintenance regime of the building. Any chemicals used to kill or remove vegetation and other pests will be appropriately applied to ensure that it does not stain or damage the surrounding built fabric. For this reason, no harsh chemicals should be used in sensitive areas that could otherwise be affected. Where it is necessary to remove any masonry to clear vegetation to make good the building fabric, existing materiality will be reinstated on a like- for-like basis using the dislodged materials in their original locations.