

Repointing Specification & Method Statement

Prior to commencement of works carry out inspection of all the surrounding masonry. Record photographically areas to be repointed / repaired showing:

- surrounding work
- joint sizes
- texture of pointing
- style of dressing (brick)
- any special or unusual features

A sample of the existing mortar, location to be agreed with the contracts administrator to ensure authenticity of the mix to be submitted to Chalk Down Limes, or similar and approved for the purpose of analysis. Confirmation of exact ratios of materials to be determined so as to replicate the results of the analysis and the original lime mortar.

Generally the mortar mix shall replicate the existing which shall be determined by analysis, otherwise:

Sheltered Exposure

- | | |
|-----------|------------------------|
| 1 part | lime putty |
| 1.5 parts | Well graded sharp sand |
| 1.5 parts | Porous limestone |
| 1 part | Brick pozzolan |

Moderate Exposure

- | | |
|-----------|--------------------------------|
| 1 part | Natural hydraulic lime (NHL2) |
| 1.5 parts | Well graded sharp sand |
| 1 part | Porous limestone / Grit to 6mm |

Severe Exposure

- | | |
|---------|---|
| 1 part | Natural hydraulic lime (NHL3.5) |
| 2 parts | Well graded sharp sand with grit to 6mm |

ADMIXTURES AND MASONRY CEMENT WILL NOT BE PERMITTED

NOTE: Gauging boxes must be used in the preparation of mortar and the correct preparation of mature lime putty, by chopping and ramming. The water content of the mortar mix is to be strictly controlled and in accordance with best practice. The workability of the mortar is to be achieved using a paddle mixer or similar and approved.

Structural Stability

The Contractor shall be entirely responsible for the structural stability during repairs and shall arrange that sufficient temporary supports are used as works proceed to keep the structure stable until repair is completed.

Temporary bracing where deemed necessary, shall be designed by the Contractor so that it does not impede work on site or in any way weaken or impair the serviceability of the structure.

Removal of defective mortar

Where aggressive cementitious mortars exist and of some depth 'stitch drill' with a masonry drill to loosen.

Using sharp tungsten tipped chisels remove all inappropriate cement mortar

Area of Work

South Elevation to Mill and Chimney Stacks

- Rake out the existing pointing using hand tools (chisels, masonry picks, quirks) to a depth of 25-30mm, any shallower would simply fail in the winter months due to freeze / thaw action and exposure to the prevailing winds
- At no times will mechanical methods be adopted
- Once joints have been raked out there are to be flushed out either with fresh mains water at low pressure, utilising a hose, or blown out with compressed air
- Prior to the pointing with new mortar the joint and masonry are to be moistened to limit suction and prevent premature drying of new mortar
- Mortar is to generally to be mixed by way of a drum mixer. Care will be required to ensure that lime and sand is thoroughly mixed. Mortar will be batched in quantities that ensure its use within 2 hours of mixing.

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- Mortar is to be packed tightly into joints utilising a pointing iron and finished flush to match the existing pointing (original pointing) as the works proceed
- Once the mortar has achieved its initial set, it will be tamped / stippled to remove residual laitance with a soft paint brush or churn brush (to be determined in the sampling process) to expose the aggregate and provide a weathered appearance. The mortar will not be brushed as this does not compact the mortar and will result in the aggregate being dragged out of the joint weakening its bonding matrix
- Mortar is to be monitored and after 24 hours may be remoistened by spray to allow any hairline cracks to be worked out, it will in any event be monitored for 7 days to ensure that it remains moist during this period
- Protection is to be provided in hot weather by hanging dampened hessian sacks in front of the wall to protect against solar gain and/or applying a light spray of water. The ends of the hessian will be submerged in buckets of water to allow wicking up of the moisture and thus controlling the set of the mortar.
- Mortar is not to be laid when the ambient temperature can be expected to fall below 5 degrees within the following 28 days.

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