

Lath & Plaster Method statement

28 June 2022

Ref: Condition 6 of Listed Building Consent 131433/LO/2021

1. EXISTING CONDITION

The internal lath & plaster finish to the ceiling in the proposed dining room are in poor condition at the corner where the internal lintel of the window opening has corroded. This is primarily due to two reasons, the first being prolonged water-ingress, primarily from failure of downpipes. This has resulted in the degradation and eventual collapse of a section of cornicing around the window at high level. The building's external walls have also not been maintained, leading to water ingress directly through the brickwork in this corner and has degraded the interior plasterwork.

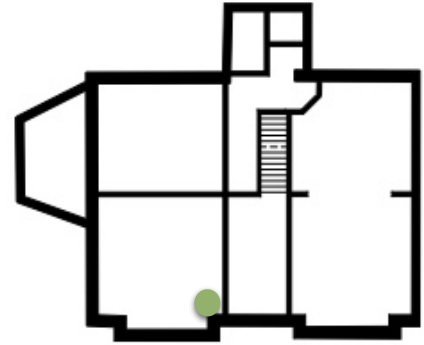
2. REINSTATEMENT OF LATH & PLASTER

The existing lath & plaster ceiling finishes on existing timber structure which have partially collapsed beyond repair in the corner of the room will be reinstated with a new, traditionally applied 3 coat Lath & Plaster finish. Prior to this, the timber structure underneath will first be checked to ensure its stability.

3. METHOD STATEMENT & MATERIAL COMPOSITION

First, sawn larch laths will be nailed to the joists, approx 10mm between each lath, and staggered in approx 1m² bays to prevent long cracks appearing as the plaster dries out. A 'pricking-up' coat of lime putty and sand will then be applied and pushed through the lath to form nibs or keys, approx 5-15mm thick. This mixture with the nibs acting as a mechanical key to help the mortar to adhere to the lath. And will be left to dry for approx. one month. The second 'floating' coat will be one part lime putty to three parts sand to a thickness of 10-15mm. The mortar will be ruled flat and scoured using a wooden float to consolidate the surface. A devil float will then be passed over the surface to give a key for the finish coat. This surface will to be dampened before application of the finish coat. The finishing coat will be one part lime putty to one part fine sand, to a thickness of 2-5mm. Once dry a painted finish will be applied.

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Partial collapse of coving to proposed dining room

Lime Plaster Specification

4. SPECIFICATION

Conserv hydraulic lime plaster or equivalent containing a base coat suitable for base coat (scratch coat and float coat) which contains coarser aggregate. Conserv Hydraulic Lime Plaster is CE certified and is manufactured to British Standards BS EN 998-1:2016 following heritage guidelines. The plaster doesn't contain anything artificial, no additives or plasticisers and absolutely, certainly no cement and is formulated blend of natural hydraulic lime (NHL) and blended sands & aggregates. The technical specification of the lime plaster are as follows:-

Base Coat Specification	BS EN 998-1:2016
Weight	25kg (approx.)
Texture	Medium Coarse
Binder	NHL 2 BS EN 459-1:2015
Aggregate	BS EN 13139-1:2015
Grading	Gc85/20
Density	1,600 kg/m ³ ± (at 91 days)
Vapour permeability	0.76 grams / 100mm ² / 24hrs ±
Compressive strength	1.84 N/mm ² ± (at 91 days)
Flexural strength	1.24 N/mm ² ± (at 91 days)
Resistance to freeze thaw	Low (10 cycles)
Resistance to sulphate exposure	High (26-50 cycles)
Resistance to freeze thaw in sulphate conditions	Low 10 cycles

Capillary rise	Very high (126-150mm in 6 hours)
Mortar durability class	3 to 4
Carbonation rate	High
Initial set	Overnight ±
Curing	90 days ±
Shelf life	Use within 12 months of purchase§

Finish coat specification	BS EN 998-1:2016
Weight	25kg (approx.)
Texture	To suit existing
Binder	Lime Putty BS EN 459-1:2015
Aggregate	BS EN 13139-1:2015
Grading	Gf85
Density	1,525 kg/m³ ± (at 91 days)
Vapour permeability	0.92 grams / 100mm² / 24hrs ±
Compressive strength	0.75 N/mm² ± (at 91 days)
Flexural strength	0.74 N/mm² ± (at 91 days)
Resistance to freeze thaw	Low (10 cycles)
Resistance to sulphate exposure	High (26-50 cycles)
Resistance to freeze thaw in sulphate conditions	Low 10 cycles
Capillary rise	Very high (126-150mm in 6 hours)

Mortar durability class	1 to 2
Carbonation rate	High
Initial set	Overnight ±
Curing	2mm per calendar month ±
Shelf life	Indefinite Potentially Keep Sealed Airtight\$