REPAIRS AND RE-PLASTERING USING EXISTING WOODEN LATHS 
AND LIME PLASTERS

WORK METHOD STATEMENT.

1. Preparation of Ceiling and Removal of Lath and Plaster
2. Repair
3. Laths.
4. Plaster.

1. REMOVAL OF LATH AND PLASTER

Clean all old plaster from between the laths. Check all timbers are free from rot, insect activity, and are generally sound. Use a brush to get rid of any residual materials and vacuum to remove dust. De-nail all timbers.

2. REPAIR

With repair, cut the edges of any existing plaster to halfway of the nearest joist; angle the cut on the old plaster at 45 degrees so the new material is applied over the bevel holding the edge of the original plaster in place. Ensure that all laths are securely fixed, re-nail where necessary.

Repairs would normally be carried out following the reinstatement of the key to the rest of the ceiling. Reinstatement results in the original ceiling being up to three times stronger than the original ceiling and resistant to affects caused by water leaks.

3. LATHS
Provide either oak or chestnut riven laths. The textured surface and exposed grain provides a better key.
Thoroughly wet laths. To remove the absorption from the laths spray with "Westox RAP primer or similar" thoroughly wetting the laths top and bottom, also soak the exposed edges of the plaster around the repair with the primer to "kill" the suction. This also helps to remove the problem of warped laths when the wet plaster is applied.

Soaking laths makes them easier to cut with a lath hammer, prevents splinters in the fingers during fixing, makes them easier to nail with less splitting and prevents the expansion of laths following the application of wet plaster which causes key breakage. Lime plasters are badly affected by too much suction so it is important that all suction is controlled.

Fix the lath at every fixing point (joist) using stainless steel fixings, such as nails, cup and screw, screw and washer or stainless steel brad nails. Make sure there is a 6mm – 10mm (3/8") gap between each lath to ensure the lime mix can squeeze through and hook onto the back of the laths.

Fix every lath the same way until you come to fix the eighth lath, move this one over one joist, to create a staggered joint, this will help prevent long, continuous cracks from developing.

Once the whole ceiling or wall is lathed it should be dampened about 10 minutes prior to the application of the first coat, this gives time for any excess of water to run off and gives you time to knock up the lime mix. There shouldn’t be any droplets of water on the laths, as this will cause the plaster to slide across the laths rather than stick to them.

4. PLASTERING  
Traditional Plastering Specification

a. MATERIALS

   Plastering Sand. Pitt sand is preferred.
   Slaked Lime Putty (minimum 14 days old)
   (If hydrated bag lime is used pre-soaking to a putty is necessary to provide the correct volumes)
   Cow or Ox hair for reinforcement

b. PREPARATION OF MATERIALS

Roughly mix the sand and lime together at the ratio of 3 parts sand to 1 part lime and 1 part of teased hair. (all parts are by volume and the same part measurement should be used for each component) Mix by placing 1 portion of lime into a mixer with water and the fibers followed by three portions of sand, tip out after turning over 6 or 7 times. Form a pile of the material until enough mortar has been mixed that is required for the render and float coats. Cover the pile
with a plastic sheet and leave for a minimum of 14 days before using if the lime has not been previously aged. (All measuring should be with gauging boxes, not shovels)

c. MORTAR.

Take 3 portions of the mixed material (e.g. 3 x 20 litres) this measure will consist of 60 litres of sand and 20 litres of lime (Lime mixes with the sand without increasing the bulk).

d. LIME SET COAT

The basic components of a lime set coat is a reverse of the scratch and float coats, ie, 3 parts sand 1 part lime mortar (Coarse stuff) to 3 parts lime to 1 part sand, set coat (Fine stuff) adjustment might be required depending on the sand and 5 parts lime to 2 parts sand is often the required mix after good clean pit sand is passed through a 300 micron sieve.

Mix the lime plaster in a clean mixing vessel using clean water, mix to a usable consistency and apply a scratch coat directly over the laths at a 45 degree angle to the laths so the plaster passes through the wire and laths curling over to form a key on the back of the laths, apply so approximately 5 to 8mm of the plaster is left on the underside of the laths, allow for initial set and scratch thoroughly ready for the following float coat. After the material has cured for several days mix fresh mortar and fill the area to be repaired or form screeds around the perimeter of the ceiling at the required finished level, if plastering a large area form box screeds to the perimeter screeds, fill between the screeds and rule and devil float to a flat keyed surface ready for the following set coat.

If a lime set is preferred allow three or 4 days before applying the lime set over the float coat (depending on the drying conditions)

e. SET COAT

In a suitable mixing vessel, place 3 portions of lime to 1 portion of sand, and mix to a usable consistency. Apply the mix to the float coat in an even coat at the approximate thickness of 3 to 4mm. After the initial application, lay the material flat and scour the surface with water and a wooden float to compact the material and prevent crazing. (If crazing occurs, increase the portion of sand to 1½ or 2 parts). When the material is well compacted, apply a ‘laying in’ coat tightly over the surface to fill any voids and finish with a steel trowel and water to a smooth even surface and leave ready for painting.