

ADAM Architecture

# Tottenham House

NBS M20 Plastered/ rendered/ roughcast  
coatings

6150 - Tottenham House - Main House

Revision I

16-08-2024

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## M20

# Plastered/ rendered/ roughcast coatings

### Clauses - Not Used

### Types of coating

#### 310 NHL lime plaster on timber laths

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1. Description: To walls
2. Substrate: Timber studs with battens
  - 2.1. Preparation:

Laths should be dampened (not saturated) with clean water. Always dampen preceding coats before applying next coat by applying a mist spray to the surface in sufficient quantity to reduce suction.
3. Lime manufacturer: St Astier
  - 3.1. Product reference/ Type: St Astier NHL2
4. Undercoats
  - 4.1. Mix: **Scratch Coat**

Mix: one part St Astier NHL2, 2 parts coarse 5mm sand. Fibres must be added on site during mixing, as clause 492. A small volume of lime putty can aid workability.
  - 4.2. Application:: Apply a fine mist spray of clean water to the surface in sufficient quantity to reduce excessive suction.

Lay on preblended plaster coat at ensuring good penetration between the laths.  
Approximately 4mm of plaster to show in front of the laths.  
Level the surface and after the surface has firmed up, key in a crisscross pattern.  
Allow approx. 7 days before the float coat depending on curing conditions.
  - 4.3. Float coat: **Float Coat**

Mix: one part St Astier NHL2, 2 parts coarse 3mm sand. A small volume of lime putty can aid workability.
5. Application:: Apply a fine mist spray of clean water to the surface in sufficient quantity to reduce excessive suction.

Lay on preblended plaster coat at approx. 8mm.  
Level the surface and after the surface has firmed. Leave the surface open and lightly keyed.  
Allow approx. 4 to 7 days before the finish coat depending on curing conditions
6. Final coat
  - 6.1. Mix: **Finish Coat**

Products: 'Lime Centre Heritage Putty Plaster Extra Fine'  
Available in 25kg bags (40 per pallet).  
Mixing:  
The pre-blended bagged product will require remixing to fatten it up before application.
  - 6.2. Application:: Apply a fine mist spray of clean water to the surface in sufficient quantity to reduce excessive suction.

Lay on preblended plaster at approx. 3mm in one or two passes.  
Allow plaster to stiffen and polish with a flexible plastic trowel or steel trowel. If required, the surface can be wet sponged to bring up the fat and then trowelled again.
  - 6.3. Finish: Smooth
7. Accessories: Laths to be riven oak or riven chestnut.

Refer to cause 626
8. Other requirements: Where a new lath and lime plaster wall continues into an existing lath and lime plaster wall or a lime plaster on masonry wall:
  1. The finish on the existing wall should be removed 300mm back from the edge of the wall

2. The new laths should be taken 300mm on to the existing wall, and fixed to a new vertical timber batten
3. The lime plaster should be continued on to the 300mm section of laths, and finished flush with the existing lime plaster

Work should not start with temperatures below 5 degrees C.  
Do not use heating.  
In quick drying conditions mist spray during curing.

### 311 Lime putty ceiling plaster on timber laths

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1. **Description:** To ceilings with timber laths
2. **Substrate:** Timber laths on battens or joists
- 2.1. **Preparation:**

Laths should be clean and sufficiently strong. On refurbishment and repair work laths should be cleaned to remove old plaster and dust. Installation of replacement laths should be carried out with minimal vibration where existing plaster remains, as clause 626.

All laths should be dampened (not saturated) with clean water. Always dampen preceding coats before applying next coat by applying a mist spray to the surface in sufficient quantity to reduce suction.

3. **Lime manufacturer:** The Lime Centre, tel: 01962 713636 [www.thelimecentre.co.uk](http://www.thelimecentre.co.uk)
- 3.1. **Product reference/ Type:** Lime Putty Plaster premixed
4. **Undercoats**
  - 4.1. **Mix: Scratch Coat**  
Pre-mixed Lime Centre Heritage Putty Plaster Coarse MS/5mm. This plaster is supplied with alkali resistant fibres. Reinforcing hair must be added on site during re-mixing, refer to clause 492
  - 4.2. **Application::** Apply a fine mist spray of clean water to the surface in sufficient quantity to reduce excessive suction.  
Remix to fatten the plaster before application.  
Lay on the plaster, ensuring good penetration between the laths.  
Approximately 4mm of plaster to show below the laths.  
Level the surface and after the surface has firmed up, key in a crisscross pattern.  
Allow approx. 7 days before the float coat depending on curing conditions.
  - 4.3. **Float coat:** Pre-mixed Lime Centre Heritage Putty Plaster Medium MS/3mm
5. **Application::** Apply a fine mist spray of clean water to the surface in sufficient quantity to reduce excessive suction.  
Remix to fatten the plaster before application.  
Lay on the plaster at approx. 8mm thick.  
Level the surface and after the surface has firmed. Leave the surface open and lightly keyed.  
Allow approx. 4 to 7 days before the finish coat depending on curing conditions
6. **Final coat**
  - 6.1. **Mix:**  
  
Finish coat to be Lime Centre Heritage Putty Plaster Extra Fine
  - 6.2. **Application::** Apply a fine mist spray of clean water to the surface in sufficient quantity to reduce excessive suction.  
Remix to fatten the plaster before application.  
Lay on the plaster at approx. 3mm thick in one or two passes.  
Allow plaster to stiffen and polish with a flexible plastic trowel or steel trowel. If required, the surface can be wet sponged to bring up the fat and then trowelled again.

6.3. **Finish:** Smooth, as clause 789

7. **Accessories:** Laths to be riven oak or riven chestnut. Refer to clause 626
8. **Other requirements:** Where areas of ceiling are being repaired, replacement timber laths must be fixed to the adjacent battens in a staggered pattern as described in clauses 587 and 626.  
Plaster thickness to be adjusted to match the adjacent plaster if required.  
Where areas of ceiling are being repaired, the junction of new and existing plaster finish should be seamless and unidentifiable.  
Timber pattresses for hanging lights and other accessories must be installed before that ceilings are plastered.  
During cold weather, refer to the temperature and protection requirements in clause 497.  
Do not use heating.  
In quick drying conditions mist spray during curing.

## General

### 418 Control samples

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1. **Complete sample areas,** being part of the finished work, in locations as follows: External rendering at roof level  
All types of internal plaster  
Replacement mouldings  
Agree size and location of panels with architect

### 421 Scaffolding

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1. **General:** Prevent putlog holes and other breaks in coatings.

### 424 Special protection of historic plasterwork

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1. **General:** Prevent damage and disturbance to retained plasterwork.
2. **Protection methods:** Contractor to submit proposals.

### 425 Health and safety

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1. Risk assessments should be carried out prior to starting work on site and measures taken to eliminate and/or reduce the exposure to any risks identified. COSHH (Control of Substances Hazardous to Health) guidelines should be followed when using potentially harmful substances such as lime.
2. Lime is a highly caustic product and can be irritating to eyes and skin. It is recommended that slaking of quicklime and mixing of dry powdered lime should be carried out in a well-ventilated area. Hot mixing is an additional risk on a building site as temperatures can reach as high as 300°C.
3. **Personal protective equipment (PPE):** PPE should be worn at all times. The following PPE is advised for all work involving lime: Gloves: lime will dry and irritate the skin. Breathing apparatus/masks: powdered lime dust is highly irritating if inhaled. Goggles: especially when slaking quicklime; lime dust is highly irritating to eyes and splashes of lime can cause burns.
4. As a further precaution, eye wash should always be available on site.
5. In addition to the health and safety considerations relating to materials, provision should be made at an early stage for appropriate scaffolding to be built so that access can be provided in a safe and appropriate manner.

## Materials and marking of mortar

### 431 Fibre reinforcement used for forming fibrous plaster components

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1. Only fibres which do not affect the chemical or physical stability of the plaster shall be used.
2. Fibres should be compatible with the binder.

3. Fibre strands should be evenly distributed.
4. Time and temperature limitations: Use within limits prescribed by mortar manufacturer
  - 4.1. Retempering: Restore workability with water only within prescribed time limits.

#### **432 Lath and scrim reinforcement used for forming fibrous plaster components**

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1. Use natural jute, canvas or hessian scrim.
2. Time and temperature limitations: Use within limits prescribed by mortar manufacturer
  - 2.1. Retempering: Restore workability with water only within prescribed time limits.

#### **479 Hydraulic lime**

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1. Standard: To BS EN 459-1.
  - 1.1. Type: Natural hydraulic lime (NHL).
  - 1.2. Refer to lime render specification and schedule.

#### **492 Hair reinforcement**

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1. Manufacturer/ Supplier: Mike Wye Ltd
  - 1.1. Product reference: Bundled horse hair
2. Proportions (approximate): The equivalent of 5 kg hair to 1 m<sup>3</sup> of coarse stuff
3. Condition: Clean, free from grease and other impurities. Well teased before adding to the mix.
4. Distribution: Evenly distributed throughout the mix with no balling into lumps.
5. Storage period for haired mortar (maximum): Four weeks.

#### **495 Mixing**

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1. Render mortars (site prepared)
  - 1.1. Batching: By volume. Use clean and accurate gauge boxes or buckets.
  - 1.2. Mix proportions: Based on damp sand. Adjust for dry sand.
  - 1.3. Lime:sand: Mix thoroughly. Allow to stand, without drying out, for at least 16 hours before using.
2. Mixes: Of uniform consistence and free from lumps. Do not retemper or reconstitute mixes.
3. Contamination: Prevent intermixing with other materials.

#### **497 Cold weather**

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1. General: Do not use frozen materials or apply coatings on frozen or frost bound substrates.
2. External work: Avoid when air temperature is at or below 5°C and falling or below 3°C and rising. Maintain temperature of work above freezing until coatings have fully hardened.
3. Internal work: Take precautions to enable internal coating work to proceed without detriment when air temperature is below 3°C.

### **Preparing substrates**

#### **507 Acceptance of backgrounds**

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1. Before preparation or application of coatings ensure that:: See below
2. Backgrounds are secure, adequately true and level to achieve specified tolerances, free from contamination and loose areas, reasonably dry and in a suitable condition to receive specified coatings.
3. All cutting, chasing, fixing of concealed conduits, service outlets and the like, and making good of the background, is completed..
4. Soundness: Free from loose areas and significant cracks and gaps.

5. Cutting, chasing, making good, fixing of conduits and services outlets and the like: Completed.
6. Tolerances: Permitting specified flatness/ regularity of finished coatings.
7. Cleanliness: Free from dirt, dust, efflorescence and mould, and other contaminants incompatible with coatings.

## 510 Suitability of substrates

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1. Soundness: Free from loose areas and significant cracks and gaps.
2. Cutting, chasing, making good, fixing of conduits and services outlets and the like: Completed.
3. Tolerances: Permitting specified flatness/ regularity of finished coatings.
4. Cleanliness: Free from dirt, dust, efflorescence and mould, and other contaminants incompatible with coatings.

## 511 Preparation generally

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1. Remove efflorescence, dust and other loose material by thoroughly dry brushing.
2. Remove all traces of paint, grease, dirt and other material incompatible with coating by scrubbing with water containing detergent and washing off with plenty of clean water. Allow to dry before applying coatings unless specified otherwise..
3. Soundness: Free from loose areas and significant cracks and gaps.
4. Cutting, chasing, making good, fixing of conduits and services outlets and the like: Completed.
5. Tolerances: Permitting specified flatness/ regularity of finished coatings.
6. Cleanliness: Free from dirt, dust, efflorescence and mould, and other contaminants incompatible with coatings.

## 584 Record castings

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1. Timing: Make castings before commencing repair work, to enable accurate reproductions to be made.
2. Items for casting: Ceiling cornice and mouldings where directed
3. Identification: Mark clearly to identify original location.

## 587 Replacing timber laths

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1. Defective plaster and laths: Remove. Prevent disturbance to adjacent sound plaster.
  - 1.1. Defective laths: Cut back to supporting joists/battens in a staggered pattern as clause 626.
  - 1.2. Cavities: Keep clear of debris.
2. Supports for laths: Sound and firmly fixed. Provide additional supports where necessary.
3. New lathing: Timber, as clause 626

## Backings/ beads/ joints

### 626 Timber lathing

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1. Type/ Section size: 30–38 x 6 mm riven laths  
Laths to be riven oak or riven chestnut: approximately 5-12 mm (¼-½ inch) thick, 25-35 mm (1-1½ inch) wide.
  - 1.1. Quality of timber: Free from decay, insect attack (except pinhole borers), splits, shakes. No knots wider than half the width of the section.
2. Moisture content at time of installation (maximum): 16%.
3. Installation: Space laths 10 mm apart in straight lines.
  - 3.1. Joints: 3 mm wide joints, centred over supports. Lath joints should be staggered after every 4 to 7 laths.

- 3.2. **Fixings:** Fix laths with 4 x 30mm stainless steel woodscrews at every support. Installation of replacement laths should be carried out with minimal vibration where existing plaster remains, drilling pilot holes where required.

## **Mouldings/ decorative plasterwork**

### **680 Fibrous plaster mouldings**

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1. **Description:** Generally
2. **Type:** Plaster mouldings
3. **Noggings, bearers, etc. to support mouldings:** Accurately position and securely fix.
4. **Installation:** True to line and level.
  - 4.1. **Fixing:** Fix with countersunk stainless steel screws
  - 4.2. **Framing, fixing points and joints:** Reinforce.
5. **Finishing:** Smooth, to correct profile and with flush joints.

### **689 In situ run plaster mouldings**

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1. **Description:** Generally
2. **Template profile:** Give notice before commencing setting out.
3. **Core mix:** Retarded 1:3 gypsum:coarse stuff (coarse stuff 1:3 lime:sand)
  - 3.1. **Keying:** Key surface of core and undercoats.
4. **Mitres:** Form as running out work proceeds.
5. **Final coats:** Run to a consistent profile with sharp arrises.
  - 5.1. **Mix:** Generally gypsum:lime putty 1:2  
Use gypsum:lime putty at 1:1 ratio where a harder mix is required for mouldings in vulnerable positions (e.g. skirtings or low level staff beads).
6. **Keying for enrichments:** Lightly scour contact areas of final coat.
  - 6.1. **Finishing:** Clean off droppings and clean out mitres.

### **692 Refixing existing plaster mouldings**

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1. **Substrates:** Accurate, secure and clean.
  - 1.1. **Suction control:** Dampen or apply suitable sealer.
2. **Installation:** True to line and level with abutting mouldings, on solid bed of gypsum based adhesive.
  - 2.1. **Additional fixings:** Stainless steel dowels located into rear of moulding and background
3. **Finishing:** Smooth, to correct profile and with flush joints.
  - 3.1. **Filler:** Plaster of Paris

### **695 Reproduction of existing plaster mouldings**

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1. **Moulds and casts generally:** Prepare moulds from original plaster face. Reproduce profiles and details accurately.
2. **Quantity of moulds:** Sufficient to complete the required number of casts and maintain a consistent appearance.
3. **Casting material:** Plaster of Paris.
4. **Inserts:** As necessary to give strength and rigidity to the mouldings and provide secure fixings.

### **697 Repairing cracks/ steps in plaster mouldings**

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1. **Preparation:** Remove applied ornament and keep for reuse. Cut back plasterwork each side of cracks. Replace defective timber laths. Remove dust.

- 1.1. Suction control: Dampen repair area or apply suitable sealer.
2. Plaster: Follow, and finish flush with, existing moulding profile.
  - 2.1. Undercoat: Gypsum gauged coarse stuff compatible with existing
    - 2.1.1. Key to receive final coat.
  - 2.2. Final coat: 1:1 gypsum:lime putty
3. Applied ornaments: Fix accurately using gypsum based adhesive.

## **699 Repairing hand modelled plasterwork**

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1. Armatures: Stainless steel to suit the relief and profile of the modelling.
2. New modelling: Lime putty:marble dust:plaster of Paris plus set retarding admixture

## **Internal plastering**

### **710 Application generally**

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1. Application of coatings: Firmly and in one continuous operation between angles and joints. Achieve good adhesion.
2. Appearance of finished surfaces: Even and consistent. Free from rippling, hollows, ridges, cracks and crazing.
  - 2.1. Accuracy: Finish to a true plane, to correct line and level, with angles and corners to a right angle unless specified otherwise, and with walls and reveals plumb and square.
3. Drying out: Prevent excessively rapid or localized drying out.

### **715 Flatness/ surface regularity**

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1. Sudden irregularities: Not permitted.
2. Deviation of plaster surface: Measure from underside of a straight edge placed anywhere on surface.
  - 2.1. Permissible deviation (maximum) for plaster not less than 13 mm thick: 3 mm in any consecutive length of 1800 mm.

### **718 Junction of new plasterwork with existing**

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1. New plasterwork: Finish flush with original face of existing plasterwork to form a seamless junction.

### **720 Dubbing out**

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1. General: Correct substrate inaccuracies.
2. New smooth dense concrete and similar surfaces: Dubbing out prohibited unless total plaster thickness is within range recommended by plaster manufacturer.
3. Thickness of any one coat (maximum): 10 mm.
4. Mix: As undercoat.
5. Application: Achieve firm bond. Allow each coat to set sufficiently before the next is applied. Cross scratch surface of each coat.

### **725 Undercoats generally**

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1. General: Rule to an even surface. Cross scratch to provide a key for the next coat.
2. Undercoats on metal lathing: Work well into interstices to obtain maximum key.
3. Undercoats gauged with Portland cement: Do not apply next coat until drying shrinkage is substantially complete.

## **786 Plastering on timber lathing**

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1. Application of undercoat: Force between laths to form continuous keys.

## **788 Nonhydraulic lime plaster undercoats**

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1. Suction control: Dampen substrate.
2. Application: Apply firmly. Trowel to an even surface. Consolidate/ scour as necessary to control shrinkage. Cross scratch to provide an undercut key for the next coat. Do not penetrate through the coat.
  - 2.1. Key for final coats: Lightly scratch using a wood 'devil' float.
3. Curing coatings: Keep damp by light spraying with water until coating is sufficiently firm.

## **789 Three layer nonhydraulic lime plaster final coat**

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1. Suction control: Dampen undercoat.
2. Application
  - 2.1. First layer: Use steel trowel.
  - 2.2. Second layer: Use wood float in the opposite direction to the first layer.
  - 2.3. Third layer: Use a steel trowel in the same direction as second layer.
3. Consolidation/ scouring: As necessary to control shrinkage. Use a wood cross grain float.
4. Finishing: Dampen with a stock brush. Polish with a steel trowel. Finish with a damp stock brush.
5. Drying: Keep damp by light spraying with water until coating is sufficiently firm.

**External rendering - Not Used**

**Lime render / mortar - Not Used**

**Render/ mortar repairs - Not Used**

Ω End of Section



Specification created using NBS Chorus