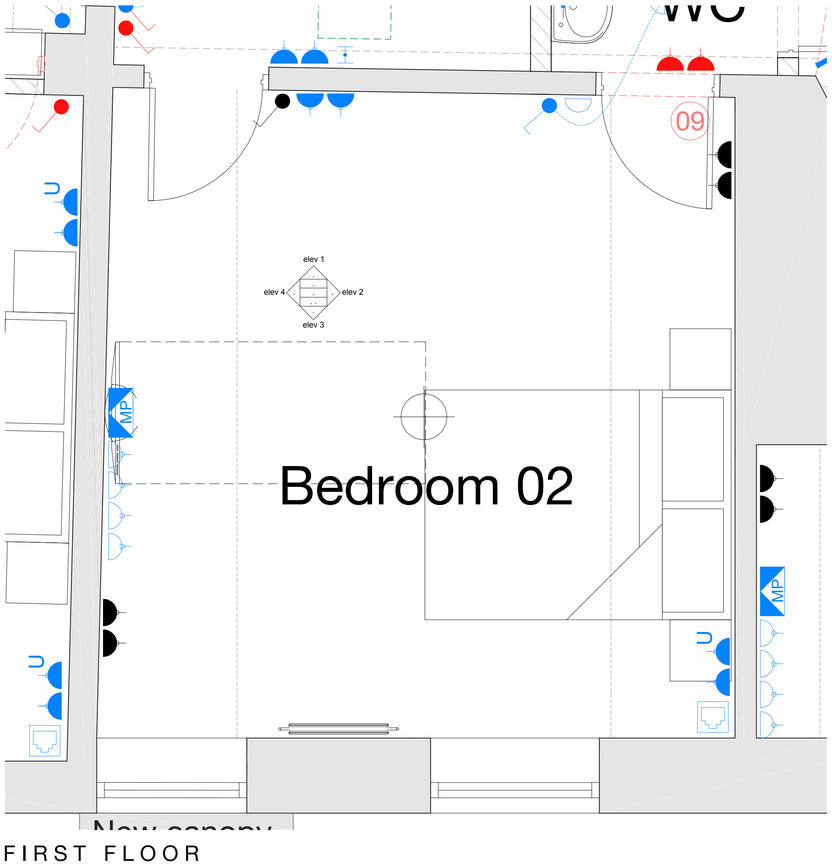
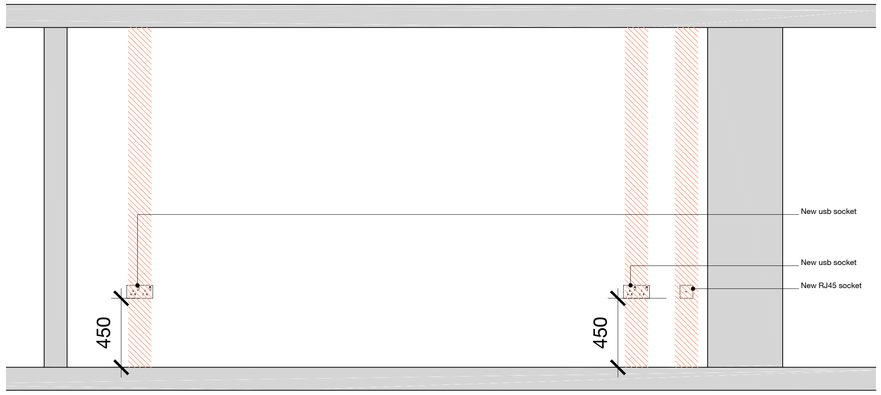
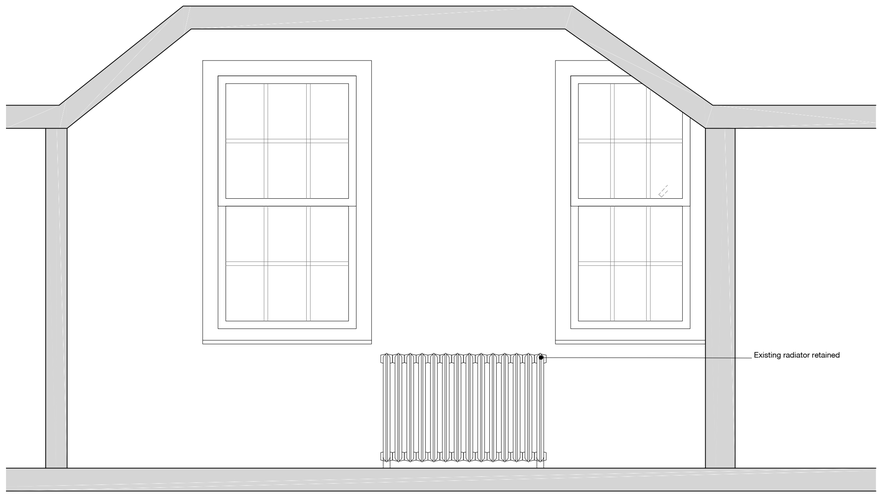


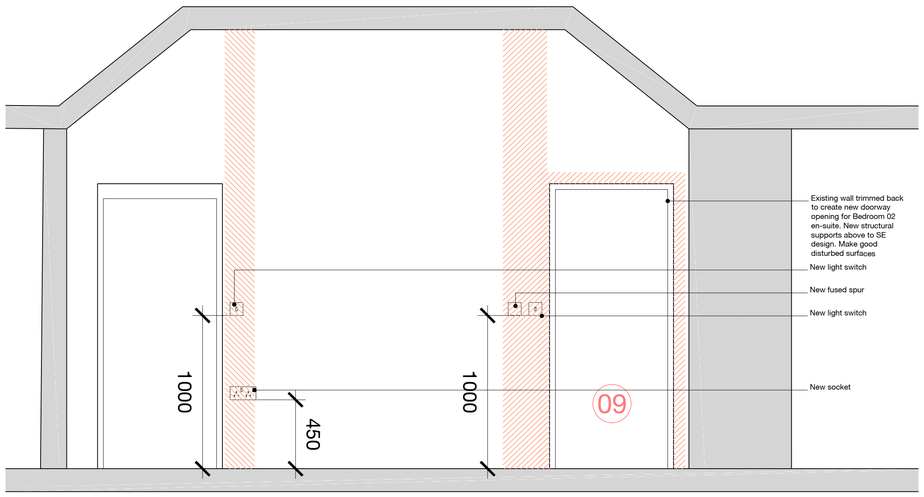
FIRST FLOOR
BEDROOM 02 PLAN



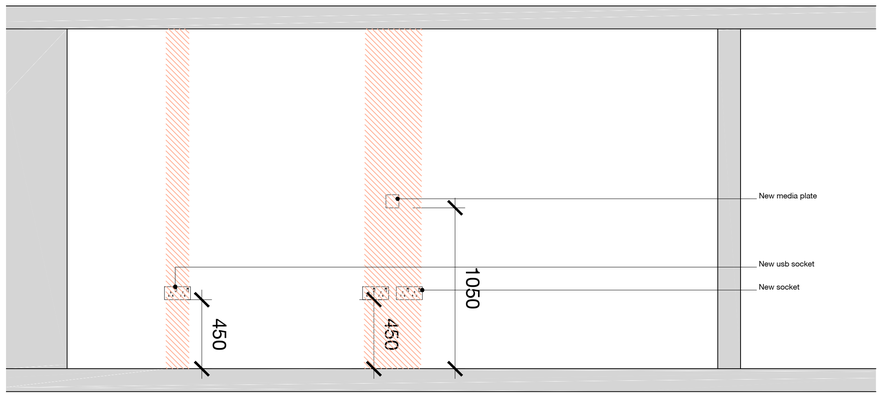
ELEVATION 02



ELEVATION 03



ELEVATION 01



ELEVATION 04

Indicative lime plaster skim chase in zone (shown dashed)

Existing component to be removed

Existing pre 20th century component to be removed

Existing 20th century component to be removed

LIME PLASTER USING ST ASTIER NHL

Using St. Astier NHL plastering mortars instead of non hydraulic putty mortars reduces the working time by about 50%. NHL mortars offer similar vapour exchange qualities as putty mortars but are more robust, can be sprayed and used for decorative plasterwork without the addition of gypsum. Requiring less after care than putty, it can be applied in 2 coats on good level backgrounds.

Mortar
Plastering in hydraulic lime mortar normally consists of two or three-coat work. Lime plaster made with feebly or moderately hydraulic lime and sand is the basis for this guide. This type of lime sets and hardens predominantly by an hydraulic set and re-absorption of Carbon Dioxide from the air. By its nature the drying and absorption process is slower than gypsum plasters, therefore lime plaster curing should not be hurried allowing approximately 3-5 days per coat depending on the hydraulic lime used.

Background
When applying Lime Plaster on the hard, the background will normally be brick or stone. The surface should be clean, free from dust and any organic materials such as lichens etc. Test the surface of masonry backgrounds for dust by applying a piece of masking tape to the background and immediately remove, examine the sticky side for traces materials that may affect the bond between the plaster and the wall.

Internal walls can be uneven and rough, often with areas that have been altered. Different background conditions are therefore common and this needs to be addressed before plastering. Deep holes, wide joints or pockets should be dubbed out in thin layers of mortar with pinnings tightly bedded in mortar, keyed and left to cure. The aim of preparing the background should be to achieve a surface that can take a first coat of consistent thickness, and to provide an adequate key for this first coat. The quality of preparation work is vital to the quality of the finished job. Suction between the first coat and the wall (and between all subsequent coats) is the primary means of bonding although a physical bond is also important. Different materials have different levels of suction, so for instance where a door way has been knocked through a stone wall and the edges built in brick, the brick may well have a different level of suction to the stone. Understanding and controlling suction is important for successful work.

For wood lath and plaster work, laths should be fixed by butt and break joints to joists or battens securely fixed back to wall or ceiling, with gaps between the laths of approx. 8 - 10mm. The support battens or ceiling joists should be spaced so that the lath does not give unduly in the centre. Wide spacing of battens or joists may require intermediate support or thicker laths. Sawn or riven laths (traditionally hand made) should be thoroughly damp before fixing. Dry laths swell when wet mortar is applied to them, sometimes causing the laths to bow in or out. Nails for fixing laths should be thin shank to avoid splitting the ends. Building paper and insulation is occasionally placed between laths and outside walls to comply with current building control requirements, this will have an effect on the drying rate and prevent proper rivet formation when fixed hard against the back of the lath. If building paper and insulation are essential, use moderately (NHL 3.5) or eminently hydraulic lime (NHL 5) for the first coat as they have faster natural sets, maintaining at least a 20mm gap between the paper and the lath.

First coat or Render coat
Rendering stuff is made with NHL 3.5 or NHL 2 in a 1:2 ratio with well graded sharp sand 3.5mm down. Rendering stuff is mixed before use as described in the data sheet. Hair or fibre reinforcement (if desired, but not necessary with hydraulic limes, except on lath work) is teased into the mortar and repeatedly chopped and turned until a good even distribution is achieved. Fibre reinforcement should be alkali resistant. The hair should be long and strong, free from lumps and clumps It should be abundantly visible as a beard around the edge of an inverted trowel full of mortar. When working on the hard the first coat of mortar should be applied by throwing (a spray gun can be or with a laying-on trowel on to a dampened but not wet background at approximately 9 - 12mm thick (generally hair or reinforcing is not required on the hard). The render coat should not be straightened.

For application onto laths, mortar should be trowel applied as evenly as possible and pressed home to form rivets between and behind the laths.

The coat should cover the lath by approximately 8-10mm. Any initial shrinkage that takes place in the drying out phase, should be lightly floated back. Tighten the entire surface in with a cross grained wood float, closing back by further dampening and tightening in a close circling motion. Key the surface with a comb, or with a lath scratcher for plaster on laths, taking care not to score too deeply. In the case of lath work ensure that scratching is across, not in line with the lath. Thereafter if necessary control the rate of drying out by misting the surface with clean water or lime water, until all shrinkage has stopped and the mortar has hardened sufficiently to receive the second coat. Do not over-wet the surface (if water droplets appear on the surface it is over-wet). Plastering on laths may take longer to dry as there is no suction of moisture into the background.

Second coat or Floating coat (this is the straightening coat).
Using the same mortar as the render coat and following the same method of mixing, apply with a laying-on trowel to a dampened background. At this stage, if straightening is necessary, fill out irregularities in thin layers and apply the floating coat to the desired line using rules or dabs. Maximum thickness should be 12- 16mm in one pass. Tighten in as before with a cross grained wood float and key lightly to receive the finish. Any irregularities in the background must be made good at this stage as it will not be possible to straighten the finishing coat due to its thinness. On lath this coat should not be applied until the first coat is sufficiently hard (about 1 week, depending on curing conditions).

Setting Stuff or Finishing coat (hair is not required).
The finishing coat is made with NHL2 in a 1:1 with fine silica sand 0.8 to 0.075mm, clean and free from silt or clays. Better finishing will be achieved by re-working the setting stuff the day after.
Apply with a laying-on trowel in two passes to an overall thickness of 2mm approx. Tighten in with a cross grained wooden float, dampening as necessary as the set takes up. Setting stuff sets by suction from the background. The final finish is produced by trowelling the surface with a steel float and dampening as necessary. Finish in one direction, usually top to bottom. Patching finished lime plaster into a repair requires care. The finish is sand based and will abrade and degrade existing edges leading to a dull surface around the repair. A clean break of a few mm is necessary around the patch and this can be filled later with NHL 2 made into a putty (no sand added) when the patch is fully hardened.

Decoration:
wallpaper or paint finishes should only be applied to fully dry and set work. Lime paint, lime wash, distemper and casein paints are traditional finishes for new work.

Protection.
Work should never be undertaken in frosty conditions or where the temperature is likely to fall below 8.C during the execution of the work or until the mortar has hardened. Protection should remain in place for as long as necessary. Ensure that the rate of drying is consistent and that strong draughts are excluded from the working area. This is particularly important where a building has windows removed or doors open. Never force the drying by introducing forced or excessive heating. If heating is required to maintain a proper working temperature use propane heating, this has the effect of producing both moisture and heat simultaneously. Ensure the temperature is adequately controlled. See "Protecting Lime Mortar".

Good working practices:
Adequate preparation and protection are essential. Due care and attention should be applied to all work. Sample panels should always be done, allow sufficient time. See also Good working Practices within NHL Renders and Pointing with NHL
More on Lime Plasters Shelter Coats/Consolidation

For further Guidance, contact your St Astier Distributor.
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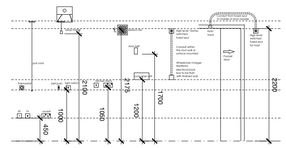
0 5 10cm

Notes | Sketch schemes may be based on plan information of unknown origin and is subject to verification and survey. Contractors must verify all dimensions on site before commencing any work or shop drawings. This drawing is not to be scaled. Use figured dimensions only. Ensure digital versions are plotted at 'Actual Size'. Building areas are liable to adjustment over the course of the design process due to ongoing construction detailing developments. Subject to statutory approvals and survey. The bar above is to check that the drawing has been printed to scale.

KEY TO ELECTRIC SYMBOLS
Existing Shown Black / Proposed Shown Blue / Removed Shown Red

- Ceiling Light
- External LED light operated by PIR with separate override switch
- Pelmet Light
- Flush LV Downlighters with fire protection
- Light switch
- Two-way light switch
- Three-way light switch
- Four-way light switch
- P Plinth light switch
- D Dimmer light switch
- High level single socket
- High level double socket
- Low level single socket
- Low level double socket
- WP External low level double socket
- U Double USB charging socket (worktop height to kitchen, low level elsewhere)
- PP Double sockets in a retractable power pod
- Door bell push button
- Door bell chime / sounder
- B.P. Boiler programmer
- Indicative radiator location
- Consumer unit 1450mm high
- MS BT - Master Socket
- A Audio Speaker
- AG Air-conditioning Grill
- BT telephone point
- BT intake termination
- TV TV aerial socket
- SD Self contained smoke alarm (Mains operated)
- HD Self contained heat detector (Mains operated)
- CD Self contained CO² alarm (Mains operated)
- G Gas point
- Ceiling mounted extract.
- Extractor
- Shaver point
- Outside tap
- Key pad for burgular alarm
- CO Carbon Monoxide Detector
- Fused Spur
- S Single socket with switched fused spur
- Stop Tap
- T Thermostat
- V Valve control socket
- C.P. Cooker Point
- Towel Rail
- Double floor socket with cover plate
- S Double socket with switched fused spur
- UFS Un switched fused spur for burglar alarm panel.
- Internal LED wall light
- Media Plate inc BT Point
- RJ45 socket

CAT 6 cabling to all existing and proposed speakers, and proposed tv/media points.


Ground Floor Plan
Existing Ground Floor Plan
Proposed Ground Floor Plan
Existing First Floor Plan
Proposed First Floor Plan
Existing Second Floor Plan
Proposed Second Floor Plan
Existing Roof Plan
Proposed Roof Plan
Existing Elevations
Proposed Elevations
Existing Section
Proposed Section
Proposed Site Plan
Proposed Block Plan
Location Plan
Key Plan
Schedule of Accommodation
Schedule of Windows
Schedule of Doors
Schedule of Rooms
Schedule of Finishes
Schedule of Fixtures & Fittings
Schedule of Sanitary Ware
Schedule of Electrical Sockets
Schedule of Electrical Switches
Schedule of Electrical Lighting
Schedule of Electrical Equipment
Schedule of Electrical Cables
Schedule of Electrical Containments
Schedule of Electrical Earthing
Schedule of Electrical Testing
Schedule of Electrical Commissioning
Schedule of Electrical Certificates
Schedule of Electrical Documentation
Schedule of Electrical Maintenance
Schedule of Electrical Operation
Schedule of Electrical Safety
Schedule of Electrical Risk Assessment
Schedule of Electrical Method Statement
Schedule of Electrical Quality Control
Schedule of Electrical Quality Assurance
Schedule of Electrical Quality Management
Schedule of Electrical Quality Plan
Schedule of Electrical Quality Audit
Schedule of Electrical Quality Report
Schedule of Electrical Quality Certificate
Schedule of Electrical Quality Manual
Schedule of Electrical Quality Procedure
Schedule of Electrical Quality Instruction
Schedule of Electrical Quality Record
Schedule of Electrical Quality Form
Schedule of Electrical Quality Checklist
Schedule of Electrical Quality Inspection
Schedule of Electrical Quality Test