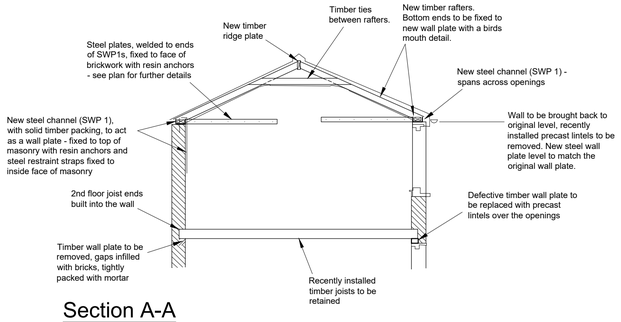
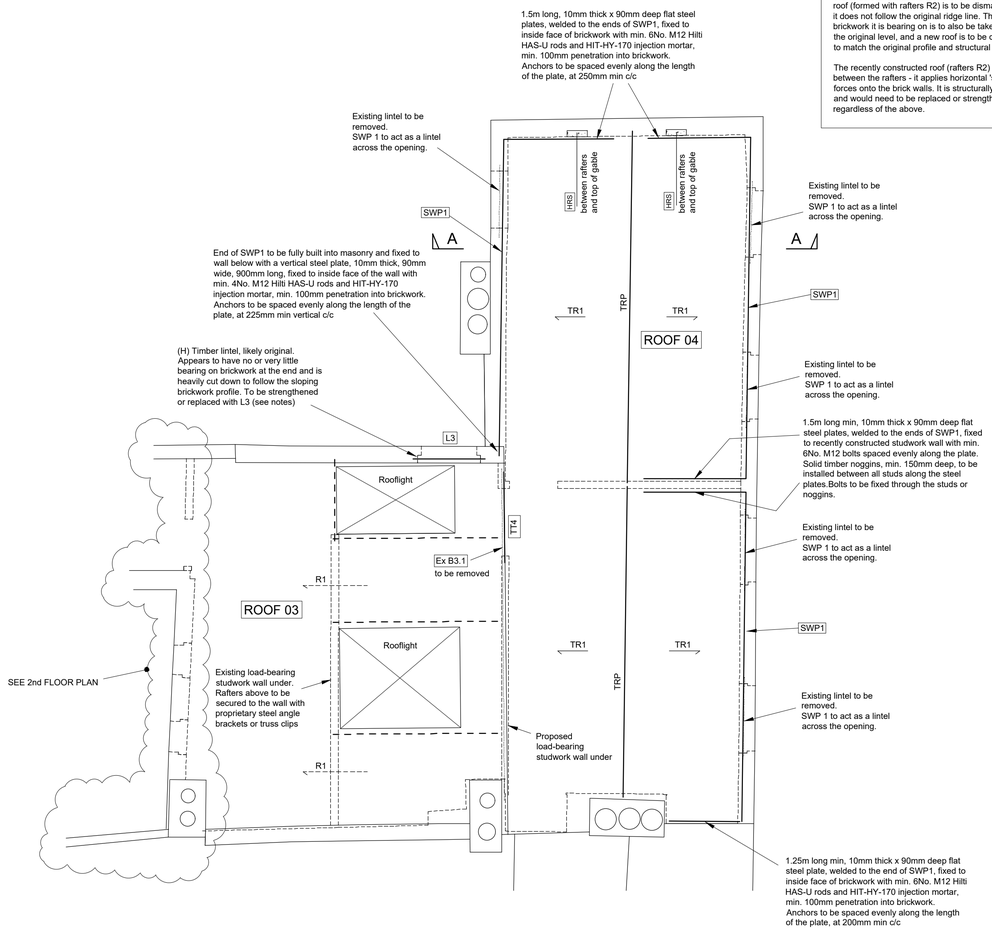


Section A-A

Structural diagram of the proposed roof

We understand that the whole of the recently installed roof (formed with rafters R2) is to be dismantled since it does not follow the original ridge line. The raised brickwork it is bearing on is to also be taken down to the original level, and a new roof is to be constructed, to match the original profile and structural diagram.

The recently constructed roof (rafters R2) has no ties between the rafters - it applies horizontal 'spreading' forces onto the brick walls. It is structurally inadequate and would need to be replaced or strengthened regardless of the above.



Roof Plan

Drawing key:

Timber:

All existing joist and rafter types listed below are modern, installed during recent works:

- A — Existing 175x75 C24 joists at 400-430mm c/c
- B — Existing 150x75 C24 joists at 400-430mm c/c
- C — Existing 100x75 C24 joists at 400mm c/c
- R1 — 95x70 C24 rafters at 400mm c/c
- R2 — 70w C24 rafters at 400mm c/c
- TRP — 150x50 C24 ridge plate
- TR1 — 125x50 C24 rafters at 400mm c/c
- TT4 — 2No. 150x50 C24 joists bolted together with M12 bolts at 400mm c/c max.

Steel:

- SWP1 — 150x90x24 PFC (galvanised) laid 'on its back', acting as a wall plate to support roof rafters, preventing spread of the timber roof A-frames, and tying the poor condition brickwork together. PFC fixed to top of masonry wall with with M8 Hilti HAS-U rods and HIT-HY-170 injection mortar, at 600mm max c/c. Anchors to be positioned as close to the centreline of the wall as possible and penetrate min. 150mm into masonry. PFC must be a single, continuous element over the whole length of each room, between the end restraints as noted on plan.

B

Walls:

- New brickwork - all brickwork infills to be fully toothed and bonded with existing brickwork
- Existing masonry
- Existing non-load-bearing walls (historic or recently installed, as noted)
- Non-load-bearing timber studwork walls installed during recent works
- Existing (recently installed) load-bearing timber studwork wall, comprising 95x70 C24 studs at 450mm c/c approx; to be retained
- Existing (recently installed) load-bearing timber studwork wall, comprising 42x95 C24 studs at 400mm c/c approx; to be retained
- New load-bearing timber studwork wall, comprising 50x100 C24 studs at 400mm c/c max, and 100x50 bottom and top plates. Double studs to be used at all wall corners and ends. Solid timber noggins to be installed between all studs, at 900mm vertical c/c max.

Padstones:

All padstones to be cast in-situ or precast units of the stated dimensions (all in mm).
L = length along the wall
W = width - penetration into wall
H = height (down the wall from underside of steel member)

- Existing padstones, to be retained
- P1 — 225L x 100W x 150H
- P2 — 500L x 100W x 300H
- P3 — 440L x 215W x 300H
- P4 — 650L x 100W x 300H
- P5 — 650L x 100W x 450H
- P6 — 330L x 100W x 225H

Lintels:

- L3 — Pair of 100w x 65d x 8.0 galvanised steel angles (65mm leg pointing up) to be added under the existing timber lintel, and outer skin of masonry (assumed flat arch) with min. 150mm bearing on the brickwork at each end. Alternatively, the existing lintel is to be replaced with IG L9 lintel (58mm high), supporting the full thickness of the brickwork panel above.

Other / general:

- Existing foundation under / structure under
- Existing beams, trimmers, or lintels, to be retained retained - material/function and details as noted on plans. For further details (including whether the members are historic or installed recently) refer to drawings series 11-15
- Proposed beams, trimmers, or lintels
- Structure to be demolished
- HRS — Restraint strap to tie external wall to floors where joists run parallel to wall. 1.2m long 'heavy duty' proprietary galvanised steel restraint strap (4mm thick, 28mm wide) fixed across 3No. joists with noggins in between. Can be fixed to top or the underside of joists, and joists can be noteched locally). End of strap to be bent and cast into a type P6 padstone, cast in-situ into a pocket cut on the inside of the wall.

Repair/strengtheing specification:

Note 2.1 Timber plates buried in external walls are in poor condition due to historic or continued water ingress, affecting integrity of the walls, and providing inadequate bearing for joists.

Remove all timber plates embedded in external walls and infill the gaps with brickwork:

1. Existing timber plates (supporting the joist ends and higher within the walls, whether historic or installed recently), are to be carefully cut out, in segments no longer than 750mm at a time. Joists bearing on the segment being worked on to be temporarily supported.
2. Infill the void with bricks to match existing, with lime mortar joints - mortar to be packed in tightly to ensure good bond with existing masonry

GENERAL NOTES:

1. All Studio Strukt drawings are to be read in conjunction with the relevant Architect's, Engineer's and Specialist Supplier's drawings and specifications.
2. Do not scale from any Studio Strukt drawings. Use stated dimensions only. All dimensions to be verified on site by contractor.
3. Fire protection, thermal and sound insulation, and waterproofing are outside of Studio Strukt's scope. Any such elements are shown indicatively only.
4. The Contractor is responsible for ensuring the stability of all structures within and adjacent to the site at all times during the contract, and is to design and provide all temporary works required.
5. All work subject to Building Control approval, Party Wall agreement, and Listed Building consent. Formation levels of all foundations to be approved on site by Building Control inspector.
6. All Studio Strukt plans are drawn 'looking down' and show structure within and immediately below the floor/level the plan refers to. For example, a 1st floor plan shows 1st floor joists, beams within and under 1st floor, and lintels above openings at ground floor level.

Unless noted otherwise, all existing steelwork, concrete and timber structures shown on this drawing are non-historic elements installed during the recent construction works.

All historic timber, steel, and concrete members are marked with (H).

Unless noted otherwise, all masonry structures are assumed to be historic.

All existing member sizes marked with (*) are based on previous engineer's drawings and have not been verified on site. All other existing member sizes are based on on own site measurements.

Rev	Description	Date	By
B	SWP1 note added	09/12/24	BK
A	Revised as clouded, issued for submission to the Council	03/12/24	BK
-	Issued for comments/coordination	28/11/24	BK

studio strukt
studiostrukt.co.uk
078 508 75 271
bart@studiostrukt.co.uk

PRELIMINARY
Not for construction

Scale	Date	By	Checked
1:50 @ A1	15/11/2024	BK	

Project
9 The Mount
London NW3 6SZ

Title
Proposed structural works:
Roof Plan

Drawing No.	Rev.
24-034/25	B