



Ground Floor 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
- Proposed timber structures:**
- TT1 Existing trimmer (single joist) to be strengthened. Add another joist of the same section size on the side of the existing, fix together with:
 - M8 bolts at 400mm c/c for joists less than 125mm deep
 - M12 bolts at 400mm c/c for joists deeper than 125mm
 The added joist to be of the same length as existing, to share the bearing/end fixing. Where existing joist is supported on a joist hanger, a new (double-width) hanger will be required.
- 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.
- Existing structures:**
- Ex B0.1 75d x 175w wall plate spanning across opening
 - Ex B0.2 152x152x23UC
 - Ex B0.3 175x75 joist
 - Ex B0.4 100x75 joist acting as a trimmer
 - Ex B0.5 2No. 100x75 joists acting as a trimmer. Joists to be bolted together with M8 bolts at 400mm c/c max along the member, at mid depth.
 - Ex RC1 150mm thick RC slabs (*) spanning between steel angles fixed to brick piers below
- Lintels:**
- L1 100d x 100w precast lintels (Naylor S4 or similar) side by side - number to suit wall thickness, 2No. min.
- Steelwork:**
- B0.1 152x152x37 UC
 - B0.2 Pair of 152x89x16 UBs side by side, to support existing masonry above
 - B0.3a 152x89x16 UB, installed under the existing concrete slab, in line with the studwork wall above
 - B0.3b
- NOTE:**
Unless noted otherwise, all beams to be installed within the depth of the timber floor joists, with top of steel 10mm below top of joists.
- CO.1 90x90x6.3 SHS to be centred on and bear on new steel beam below, with a 10mm thick baseplate and 4No. M12 bolts
 - CO.2 90x90x6.3 SHS to be centred on and bear on new concrete padstone below, with a 10mm thick baseplate and 4No. M8 resin anchors into the concrete
- NOTE:**
Both steel columns to be built into the new studwork wall - the studwork provides lateral restraint to the columns. Timber studs are to be placed directly against the columns on both sides, and fixed through with M8 bolts at 600mm vertical c/c.
- 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
- Other / general:**
- Existing foundation under / structure under
 - Existing beams, trimmers, or lintels, to be retained - materials/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

Repair/strengthening specification:

- Note 0.1** Secure previously installed timber wall plate to brickwork and fix joists:
1. Ensure any gaps between top of brickwork and underside of timber plate are tightly packed with mortar.
 2. Fix the wall plate to the top of brick wall with M8 HiTi HAS-U rods and HIT-HY-170 injection mortar, at 600mm max c/c along the wall. Anchors to be positioned as close to the centreline of the wall as possible and penetrate min. 150mm into masonry.
 3. Also provide vertical steel restraint straps at 900mm max c/c, extending min. 750mm down the wall and bent over the top of the wall plate. Fix to wall using plug-and screw fixings and to timber using wood screws.
 4. Secure joists to wall plate using proprietary steel angle brackets or truss clips (Expanet or similar) and install full depth timber blocking between joist ends, along their bearing on the wall plate.
- Note 0.2** Provide additional support to Ex B0.3:
1. Install minimum 6No. M12 HiTi HAS-U rods and HIT-HY-170 injection mortar, through the side of the joist and into brickwork behind, min. 100mm penetration into brickwork. Anchors to be spread evenly across the width of masonry pier (as indicated by the arrow on plan), and positioned as follows:
 - min. 150mm away from any masonry edge
 - min. 50mm away from any edge of timber
 - spaced min. 75mm apart
 - in a staggered pattern
- Note 0.3** Provide fixings between studwork walls and external masonry walls (the purpose is to ensure the two walls provide lateral restraint to each other):
1. Ensure the last stud is placed directly against the inside face of brickwork.
 2. Fix the stud to the brick wall with M8 HiTi HAS-U rods and HIT-HY-170 injection mortar, at 600mm max vertical c/c. Anchors to be centred on the stud and penetrate 80-120mm into masonry.
- Note 0.4** Remove recently installed joist bearing on/spacing just above the top of brickwork wall, and remove the ground floor studwork partition above. Construct new load bearing studwork wall along the hallway:
1. Ensure top of masonry wall is a level, flat surface. Replace any broken or missing bricks, and apply a layer of grout over the whole top surface of the wall.
 2. Fix new wall plate to the top of brick wall with M8 HiTi HAS-U rods and HIT-HY-170 injection mortar, at 600mm max c/c along the wall. Anchors to be positioned as close to the centreline of the wall as possible and penetrate min. 150mm into masonry.
 3. Also provide vertical steel restraint straps at 900mm max c/c, extending min. 750mm down the wall and bent over the top of the wall plate. Fix to wall using plug-and screw fixings and to timber using wood screws.
 4. Secure joists to wall plate using proprietary steel angle brackets or truss clips (Expanet or similar) and install full depth timber blocking between joist ends, along their bearing on the wall plate.
 5. Construct new studwork wall above.
- Note 0.5** Install new wall plate and secure joist ends where they currently bear directly on brickwork:
1. Remove a single course of bricks under the joists if necessary to fit a new wall plate in.
 2. Ensure top of masonry wall is a level, flat surface. Replace any broken or missing bricks, and apply a layer of grout over the whole top surface of the wall.
 3. Fix new wall plate to the top of brick wall with M8 HiTi HAS-U rods and HIT-HY-170 injection mortar, at 600mm max c/c along the wall. Anchors to be positioned min. 75mm away from edge of masonry and penetrate min. 150mm into masonry.
 4. Also provide vertical steel restraint straps at 900mm max c/c, extending min. 750mm down the wall and bent over the top of the wall plate. Fix to wall using plug-and screw fixings and to timber using wood screws.
 5. Secure joists to wall plate using proprietary steel angle brackets or truss clips (Expanet or similar) and install full depth timber blocking between joist ends, along their bearing on the wall plate.

GENERAL NOTES:

1. All Studio Strukt drawings are to be read in conjunction with the relevant Architects, Engineers 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 floorlevel 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 site measurements.

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

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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:
 Ground Floor Plan**

Drawing No.	Rev.
24-034/22	A