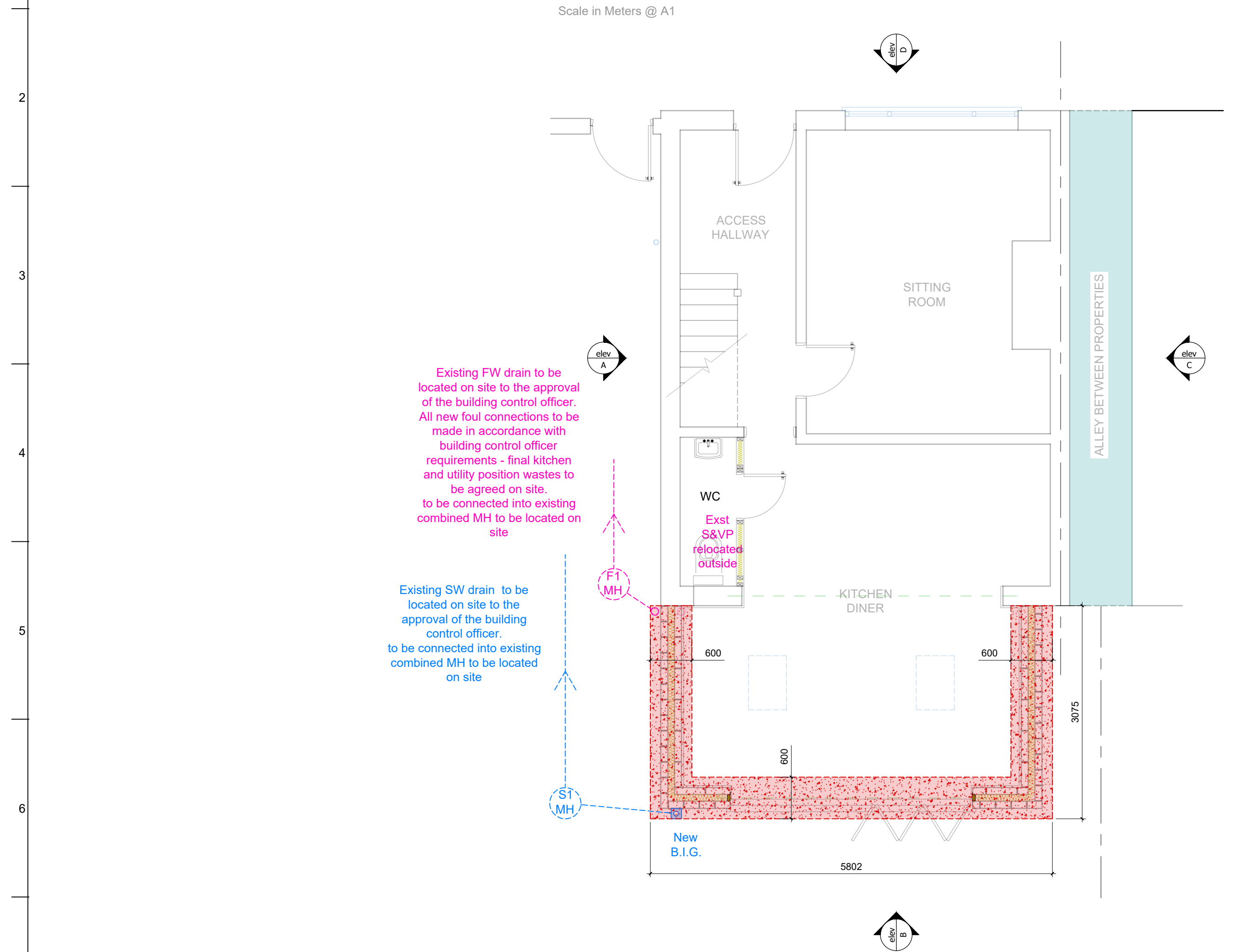
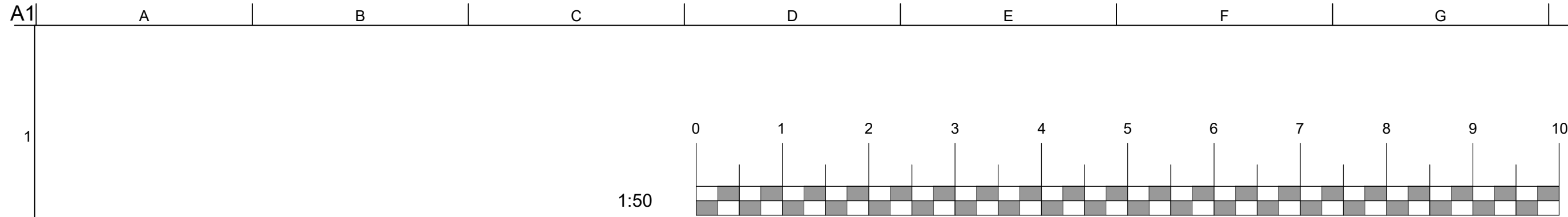
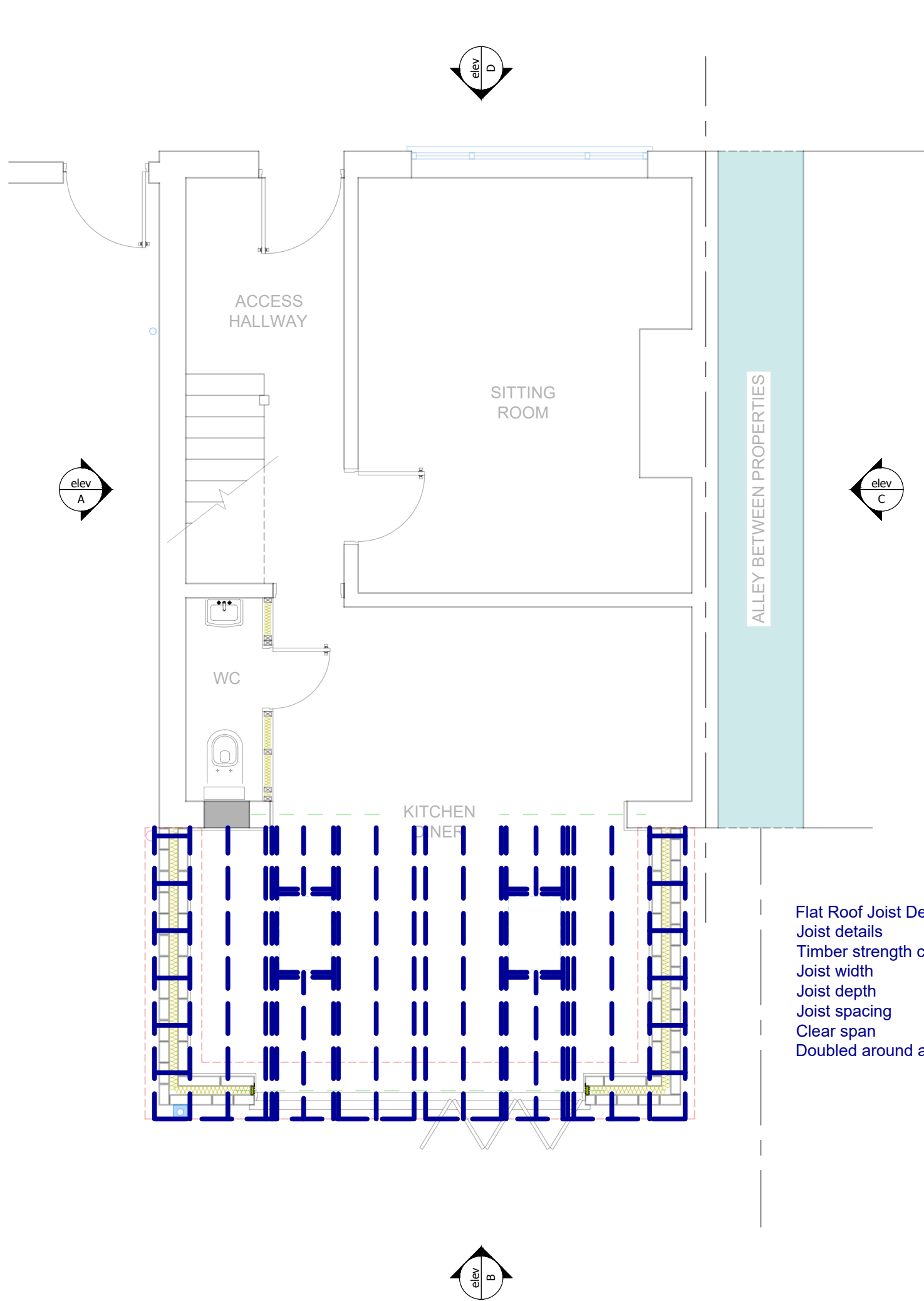




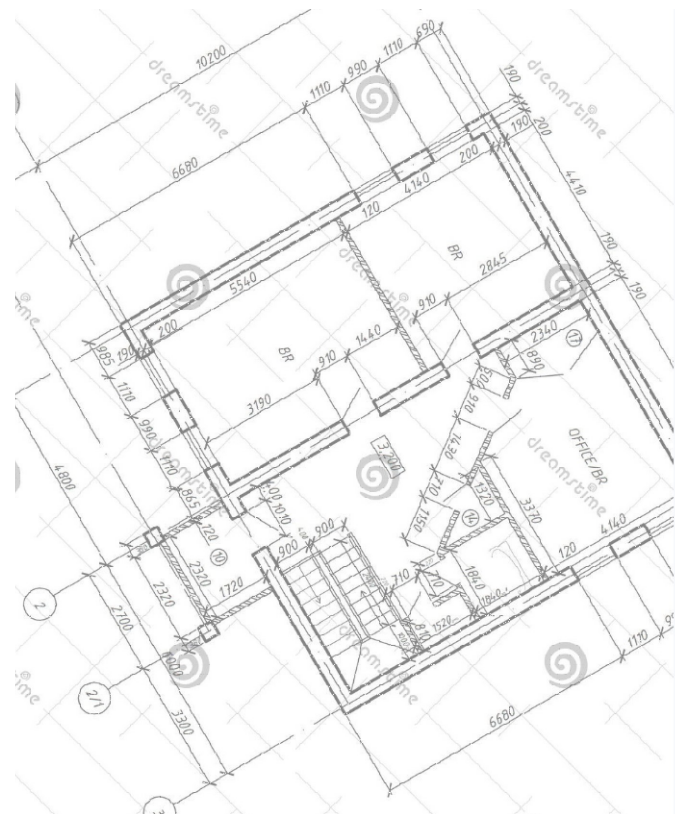
PROPOSED FOUNDATION & DRAINAGE PLAN
Scale: 1:50 @ A1



PROPOSED TIMBER ROOF PLAN
Scale: 1:50 @ A1

Flat Roof Joist Design (BS5268-2:2002)
Joist details
Timber strength class C16
Joist width b = 50 mm
Joist depth h = 175 mm
Joist spacing s = 400 mm
Clear span Lcl = 2.8 m
Doubled around all openings

1. TO BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS / SPECIALISTS DRAWINGS. REPORT ANY DISCREPANCIES BEFORE AFFECTED WORK COMMENCES
2. ALL SETTING OUT DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR BEFORE WORK COMMENCES
3. CONTRACTORS ATTENTION IS DRAWN TO THEIR RESPONSIBILITY UNDER THE 2015 CDM REGULATIONS
4. BEFORE YOU PROCEED WITH YOUR LOFT CONVERSION PROJECT, YOU MAY NEED TO DRAW UP A PARTY WALL AGREEMENT. HENCE THE NEED FOR A PARTY WALL AGREEMENT LOFT CONVERSION AGREEMENT. THIS IS A LEGAL AGREEMENT WHICH HELPS MINIMISE THE IMPACT THAT THE WORK MAY HAVE ON YOUR NEIGHBOURS AND HELP PROTECT THE INTERESTS OF ALL PARTIES INVOLVED.
5. BUILDING SAFETY ACT OCTOBER 2023
CLIENT - ENSURE THEY CAN PLAN MANAGE AND MONITOR THEIR PROJECT.
ENSURE DESIGN WORK IS IN ACCORDANCE WITH REGULATIONS
BUILDING WORK IS CARRIED OUT IN COMPLIANCE WITH REGULATIONS
DESIGNER & CONTRACTOR COOPERATE TO ENSURE COMPLIANCE WITH THE REGULATIONS.
CLIENT TO APPOINT DESIGNERS CONTRACTORS AND PRINCIPLE DESIGNERS PRINCIPLE CONTRACTORS



RJ DESIGN (NW) LTD
07734911515
robjones@rjdesignsnw.co.uk

client	Tony Haynes 07909-222-897 tonyhaynes@hotmail.co.uk
project	47 Butleigh Road Huyton Liverpool L36-3SN Proposed Rear Single Storey Extension - Class A Permitted Development PROPOSED FOUNDATION PLAN PROPOSED DRAINAGE PLAN PROPOSED TIMBER ROOF PLAN BUILDING REGULATION NOTES
drawing title	
drawing number	0001-03
revision	*
drawing status	Planning - Building Control
scale	1:50 - @ A1
date	Dec 2023
drawn by	RJ
checked by	RJ

Drainage

Generally:-

- 110mm S.V.P.'s to terminate min 900mm above nearest opening with plastic balloon cage or with Air admittance valves (A.A.V.) as shown.
- Bath, sink, shower and wash hand basins 40mm pipe-work.
- Pipe-work in combined situations 50mm all with 75mm deep seal traps.

All below ground drainage to be 110mm diameter U.N.O. with all surface water R.W.P.'s to discharge into B.I.G.

Surface Water Drainage to be installed to minimum gradients of:-

- 110mm diameter pipe @ 1:100 or 10mm per linear meter run, or
- 160mm diameter pipe @ 1:150 or 6.7mm per linear meter run.

Foul Water Drainage to be installed to minimum gradients of:-

- 110mm diameter pipe @ 1:40 or 25mm per linear meter run, or
- 160mm diameter pipe @ 1:80 or 12.5mm per linear meter run.

All drains beneath floor slabs to be encased:-

- Minimum encasement 150mm of C20 concrete.
- All drains within 1000mm of walls to be C20 concrete encased to the full width of trench up to top of foundation of that wall, with movement joints formed in concrete at each pipe socket face.

Pipe-work with less than 900mm of cover beneath driveway to incorporate reinforced concrete cover slab to bear minimum 300mm onto original ground either side of drain excavation, with minimum 25mm compressible board between concrete and minimum 75mm granular bed and surround to pipework.

- Inspection chambers less than 1000mm deep to be preformed 450mm diameter PVC chambers on concrete bases, with Grade C2 cast iron cover and frame.
- Inspection chambers greater than 1000mm deep or under drive area to be in 225mm Class B engineering brickwork, with 150mm concrete base, benching to falls, complete with medium duty Suparsteel cover or cast iron covers and frame to drive area.

All foul drainage to finally connect to existing foul system.

- All RWP's 68mm dia, connected to back inlet gullies with access gratings; underground details similar to that of foul drainage and to discharge to existing surface water system
- Gutters 112mm to be UPVC
- All drainage works to comply with BS8301.

Surface water drains - to be either connected to main drain or soak-away.

Pipe-work to discharge to 1000mm diameter x 1500mm deep builders rubble filled soak-away's minimum 5m from building in position shown, subject to suitable ground conditions.

All drainage works to comply with BS EN 752 Parts 1-4

Foundations

Foundation depths shall be subject to ground conditions, the location of trees within 30m of any development may impact depths.

Minimum depths for clay sub-soils 1000mm and 700mm for sands & gravels

Foundations to be constructed of concrete common brickwork up to 150mm below ground level, with Class 'B' engineering brickwork from GL to DPC level externally and concrete block work internally, built off

- 600mm x 200mm (C25 mix- 25N/mm²) concrete strip foundations, at min. depth of 1000mm depth to suit local ground conditions.

Cavity fill to be brought to within minimum 225mm of new dpc level.

Internal walls to be constructed of either, concrete common brickwork up to DPC level or concrete block work, built off

- 450mm x 200mm (C25 mix- 25N/mm²) concrete strip foundations, at min. depth of 1000mm depth to suit local ground conditions.

Existing foundations to be exposed for inspection via structural engineer/building control to establish suitability to cast adjacent to/acceptability to build additional storey.

Ground Floor - ground bearing

Min 'U' Value 0.18W/m².K

Perimeter 10.15 Lin.m to Area 12.87m² - Ratio 0.79

Floor to comprise:-

- 65mm sand cement screed over 500 gauge polythene vapour control layer over 100mm Kingspan Kooltherm K103 phenolic board (thermal conductivity 0.021W/mk) or similar approved, to provide maximum 'U' value of 0.18W/m².K, on polythene separating layer, on
- 100mm thick concrete slab (C20 mix- 20N/mm²) on 1200 gauge DPM, lapped minimum 100mm with all DPC's, on
- 25mm sand blinding, on
- 150mm well compacted hardcore.
- 25mm Kingspan Kooltherm K103 phenolic board to be lapped vertically up perimeter of screed to limit thermal bridging in accordance with Part L1A 2013 Edition, section 3.90 and Robust detail 4.13 of Limiting Thermal Bridging and air leakage Robust Construction details for dwellings similar buildings amendment 1 TSO 2002.

DPCs

- New sections of cavity wall to incorporate:-
- PVC type dpc at finished ground floor level.
- Vertical dpc to be fixed to the rear of the wall connector.
- Polypropylene cavity trays to be installed in cavity walls above all openings.
- All cavity trays complete with weepholes @ maximum 1000mm ctrs to BS5628 Part 3.
- Cavity tray to be installed where mono pitch roof abuts side house wall.

Cavity Walls

Min 'U' Value of 0.18 W/m².K

New sections of cavity wall to be:-

- 300mm overall construction to comprise of
- 102mm outer skin of facing brickwork to match existing precisely and inner skin of 100mm - 3.6/7N/mm² medium/lightweight block-work
- Medium (0.51) - 0.18W/m².K
- Lightweight (0.15) - 0.17W/m².K
- Aerated (0.11) - 0.16W/m².K

Both skins laid on 1:6 mortar mix with plasticiser, struck flush joints and bonded together with stainless steel cavity wall ties spaced 750mm horizontally and 450mm vertically, staggered in alternate rows.

Cavity ties to be installed at all door and widow reveals every 225mm in height and within 225mm of any opening.

Cavity ties cavity width:-

50 to 75mm tie length 200mm

76 to 100mm tie length 225mm

101 to 125mm tie length 250mm

126 to 150mm tie length 275mm

wall tie to BS EN 845-1,

type 1,

type 2 (cavity up to 100mm),

type 3,

type 4 (cavity up to 100mm)

- All cavities closed at eaves, door and window openings with Thermabate or similar insulated cavity closer's,
- 100mm cavity in-filled with 90mm Kingspan Kooltherm K106 Cavity Board (thermal conductivity 0.018W/m².K), to provide a maximum 'U' value of 0.18 W/m².K.

Internal block wall to be jointed at ground floor garage & subsequent areas dry-lined with 12.5mm plaster board with a 3-5mm skim coat.

New brick/block work to be tied to existing via stainless steel strongwall connectors fixed directly to existing brickwork as per manufacturers recommendations.

Vertical dpc to be fixed to the rear of the wall connector.

Non-loadbearing partitions

110mm Comprising of:-

- C16 - 75mm x 50mm regularized timber studs @ 400mm centers, with
- 75mm timber continuous header and sole plates, intermediate noggins at spacing's not greater than
- 900mm, and with,
- 12.5mm plasterboard and skim both sides.

All stud partitions to have:-

- 65mm thick isover acoustic partition insulation quilt between studs, partitions within bathrooms/en-suite to incorporate foil-backed plasterboard internally.