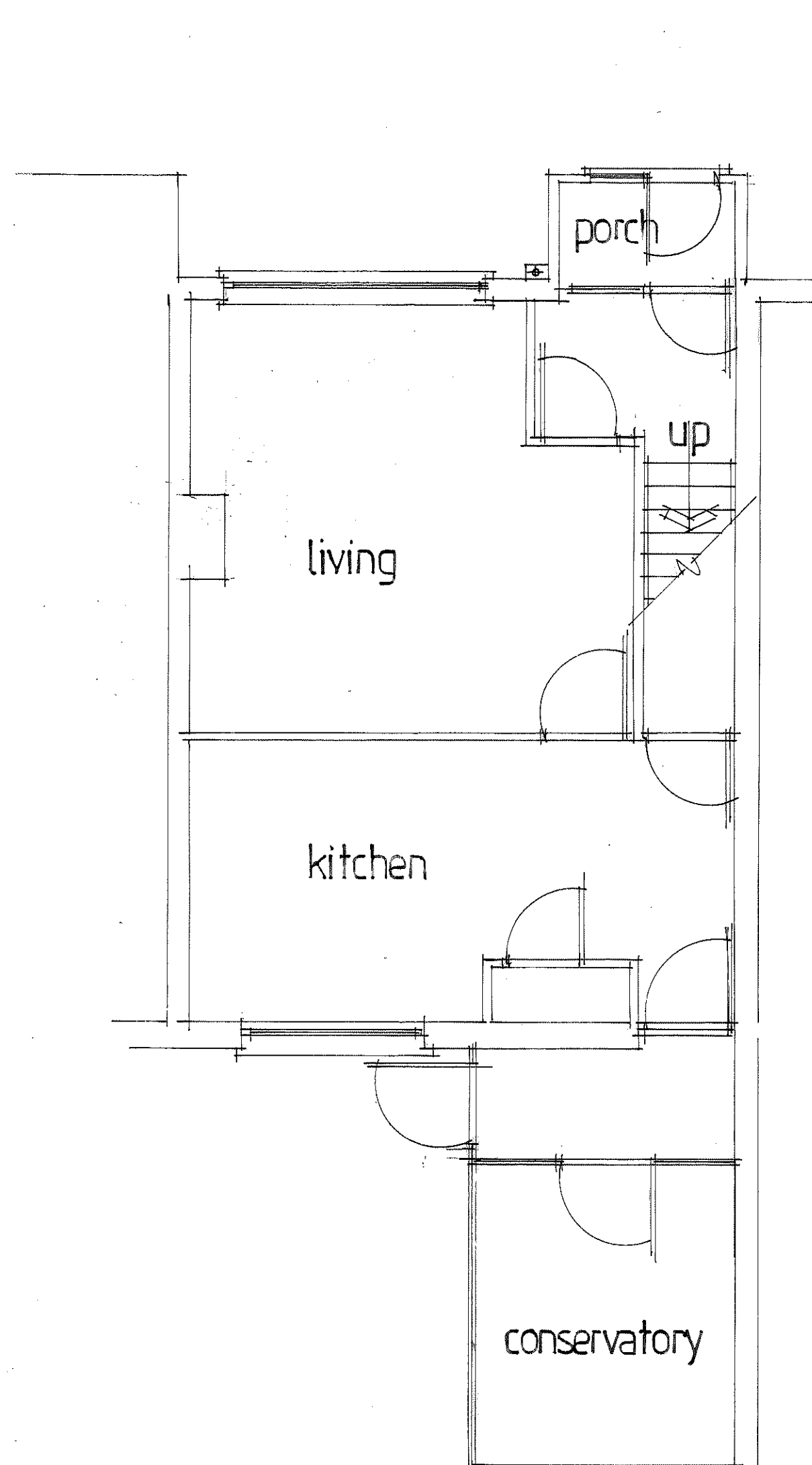




existing ground floor

TRENCH FOUNDATION - Provide 750mm thick trench fill concrete foundations with a minimum width equal to the width of the wall plus 300mm. Concrete mix to conform to BS EN 206:2013 (A2-2021) and BS 8004:2015 Code of practice for foundations (A1:2020). All foundations to be a minimum of 1.0m below ground level, exact depth and foundation size to be agreed on site with Building Control Officer to suit site conditions. All constructed in accordance with 2010 Building Regulations A1/2 and BS 8004 Code of Practice for Foundations (A1:2020). Ensure foundations are constructed below invert level of any adjacent drains. Base of foundations supporting internal walls to be min 600mm below ground level. Sulphate resistant cement to be used if required. Please note that should any adverse soil conditions or difference in soil type be found, or any major tree roots in excavations, the Building Control Officer is to be contacted and the advice of a Structural Engineer should be sought.

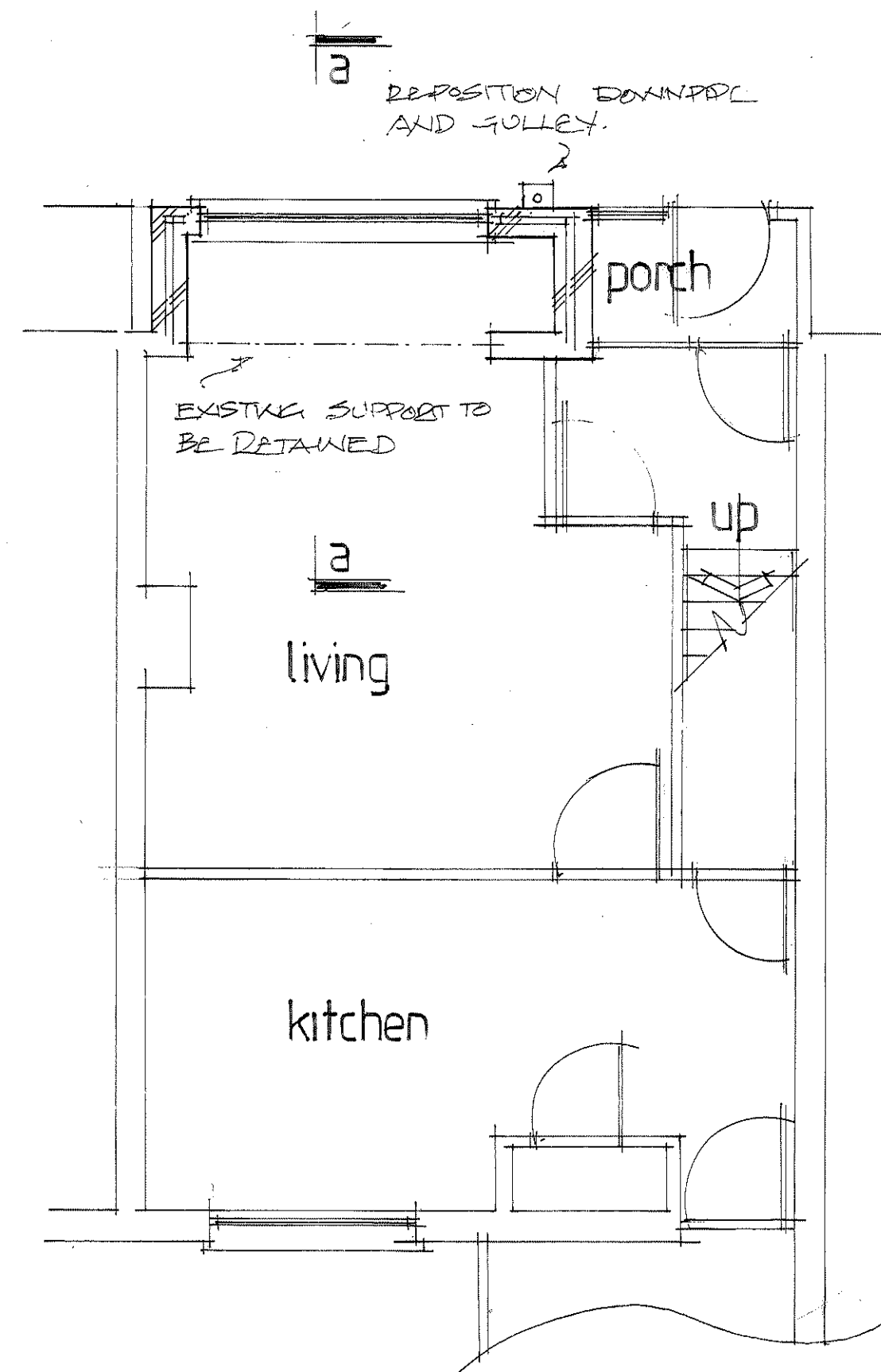
CAVITY RENDER WALL - 20mm two coat sand/cement render to comply to BS EN 12554-1 with waterproof additive on 100mm lightweight block, 0.15 W/m²K, e.g. 'Celcon solar' or Toplite Standard. Full fill the cavity with 90mm 'Celotex Thermocast Cavity Wall 21' full fill insulation as manufacturer's details, leaving 10mm cavity between the insulation and outer skin. Inner leaf to be 100mm lightweight, 0.15 W/m²K, e.g. 'Celcon solar' or 'Toplite standard'. Internal finish to be 12.5mm plasterboard on dabs. Walls to be built with 1:2.5 cement mortar. Vertical joints in the board must be staggered and all joints tightly butted. All details including corner and junction to be as relevant BBA certificate. Location to be assessed for suitability of insulation boards. All new walls below ground to be constructed using blockwork compliant with BS EN 771 and suitable for below ground level or semi engineering brickwork. Walls to be built using 1:4 masonry mortar mix or equal approved specification to BS EN 12618-1. Cavities below ground level to be filled with lean mix concrete min 225mm below damp proof course. Or provide lean mix backfill at base of cavity wall (150mm below damp course) laid to fall to weepholes. **TO ACHIEVE A U-VALUE OF 0.15W/m²K.**

RAINWATER GOODS - New rainwater goods to be new 110mm UPVC half round gutters taken and connected into 68mm dia UPVC downpipes to existing drainage system.

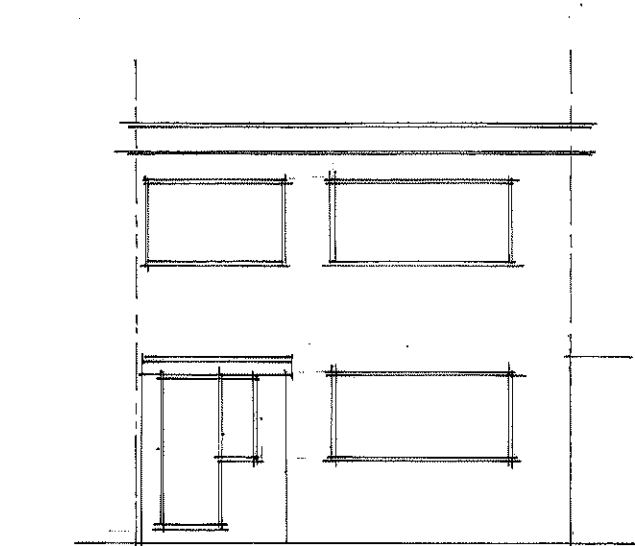
LINTELS - Lintel widths are to be equal to wall thickness. All lintels over 750mm sized internal door openings to be 65mm deep pre-stressed concrete plank lintels. 150mm deep lintels are to be used for 900mm sized internal door openings. Lintels to have a minimum bearing of 150mm on each end. Any existing lintels carrying additional loads are to be exposed for inspection at commencement of work on site. All pre-stressed concrete lintels to be designed and manufactured in accordance with BS EN 1992-1-1, with a concrete strength of 50 or 40 N/mm² and incorporating steel strands to BS 5896 to support loadings assessed to BS 5977 Part 1. For other structural openings provide proprietary insulated steel lintels suitable for spans and loadings in compliance with Approved Document A and lintel manufacturer's standard tables. Stop ends, DPC trays and weep holes to be provided above all externally located lintels. Independent lintels to have an insulated cavity closure between the inner and outer lintel.

WALL TIES - All walls constructed using stainless steel vertical twist type retaining wall ties built in at 750mm ctrs horizontally, 450mm vertically and 225mm ctrs at reveals and corners in staggered rows. Wall ties to be suitable for cavity width and in accordance with BS EN 845-1:2013. Wall ties for cavities over 150mm to be suitable for cavity width, and installed as manufacturer's details.

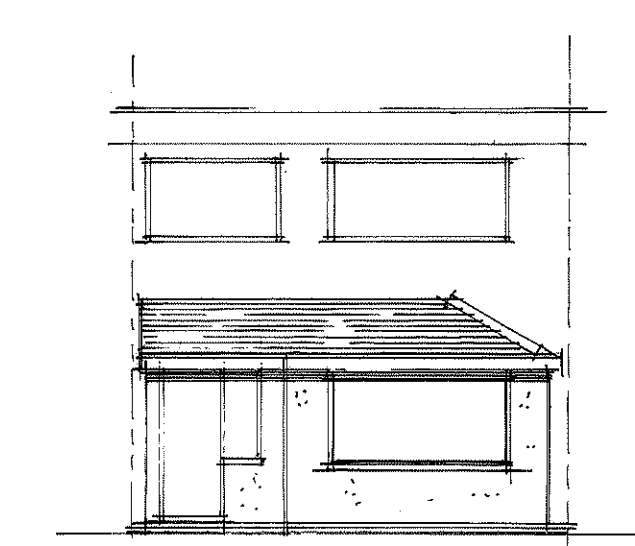
SOLID FLOOR (P/A 0.5) - Solid ground floor to consist of 150mm consolidated well-rammed hardcore. Blinded with 50mm sand blinding. Provide 100mm ST2 or Gen2 ground bearing slab concrete mix to conform to BS 8500-2 over a 1200-gauge polythene DPM. DPM to be lapped in with DPC in walls. Floor to be insulated over slab and DPM with min. 90mm 'Celotex GA4000' insulation. 25mm insulation to continue around floor perimeters to avoid thermal bridging. A VCL should be laid over the insulation boards and turned up 100mm at room perimeters behind the skirting, all joints to be lapped 150mm and sealed. Finish with 65mm sand/cement finishing screed with light mesh reinforcement. Where drain runs pass under new floor, provide A142 mesh 1.0m wide and min 50mm concrete cover over length of drain. Where existing suspended timber floor air bricks are covered by new extension, ensure cross-ventilation is maintained by connecting to 100mm dia. UPVC pipes with 100mm concrete cover laid under the extension. Pipes to terminate at new 65mm x 215mm air bricks with cavity tray over. **TO ACHIEVE A U-VALUE OF 0.18W/m²K.**



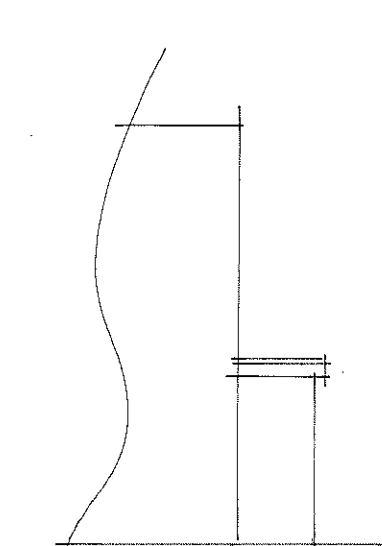
proposed ground floor



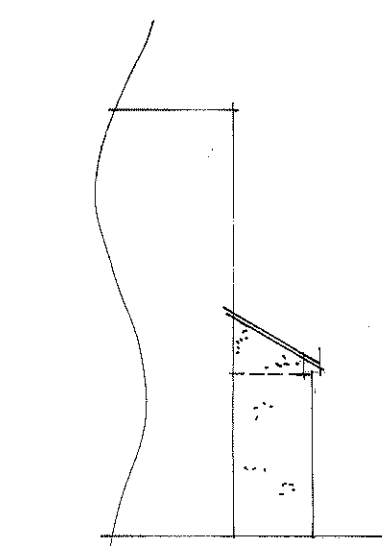
existing front



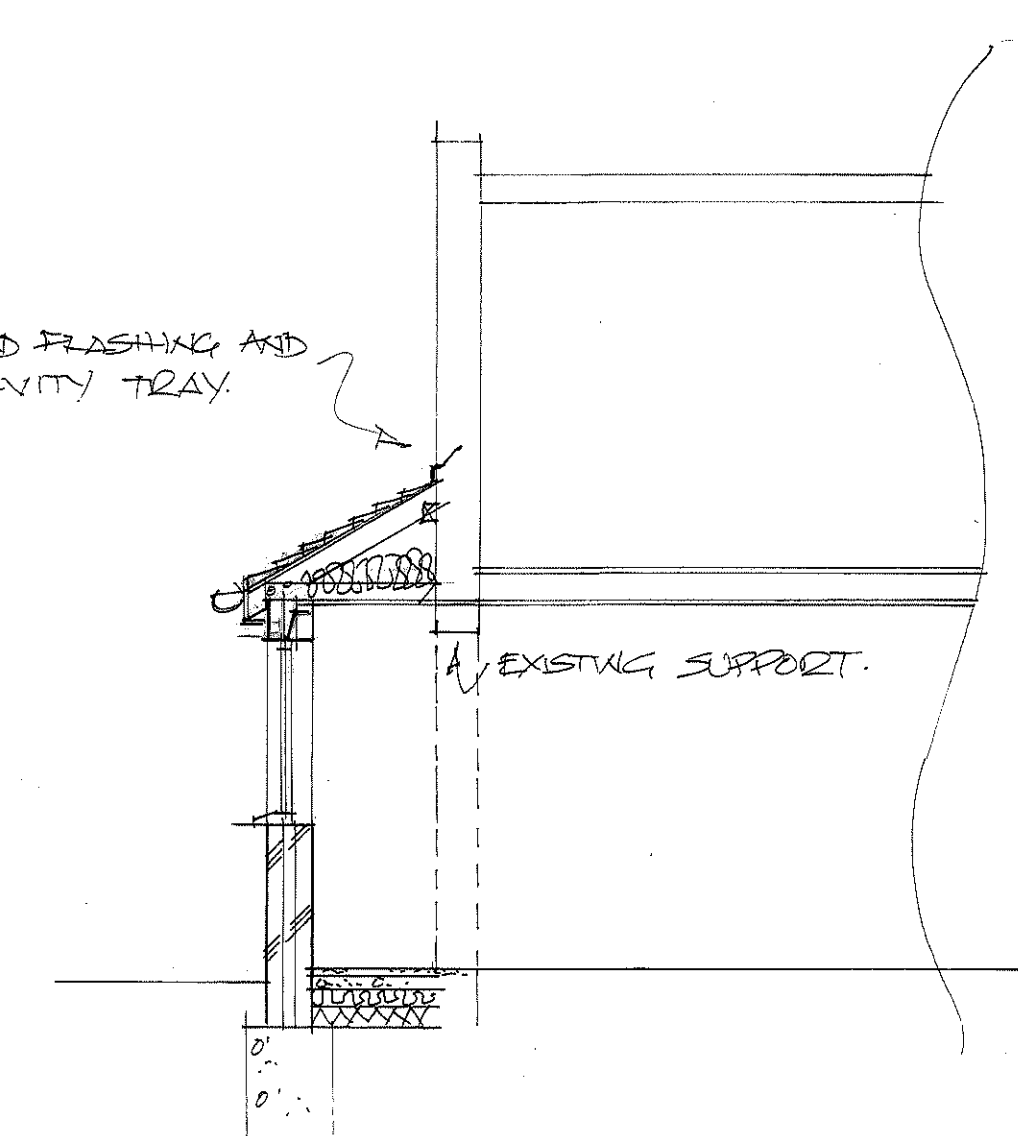
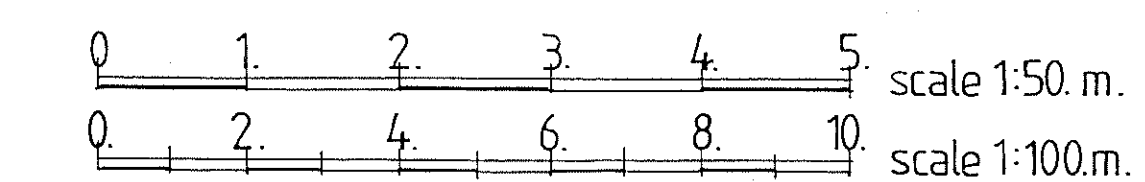
proposed front



existing side



proposed side



section a-a

PITCHED ROOF INSULATION AT CEILING LEVEL - Roofing tiles to match existing on 25 x 38mm treated battens on sarking felt supported on 100x50mm grade C24 rafters at max. 400mm cts. Rafters supported on 100 x 50mm wall plates. Insulation at ceiling level to be two layers of Rockwool insulation to total 300mm laid between over joists (cross direction). Construct ceiling using 100x50mm C24 joists at 400mm cts, finished internally with 12.5mm plasterboard and min. 3mm thistle multi-finish plaster. Provide polythene vapour barrier between insulation and plasterboard. Provide opening at eaves level at least equal to continuous strip 25mm wide on two opposite sides to promote cross-ventilation. Mono pitched roofs to have ridge/high level ventilation equivalent to a 5mm gap via proprietary tile vents spaced in accordance with manufacturer's details. Restraint strapping - 100mm x 50mm wall plate strapped down to walls. Ceiling joists and rafters to be strapped to walls and gable walls, straps built into cavity, across at least 3 timbers with noggins. All straps to be 1000 x 30 x 5mm galvanized straps or other approved to BS EN 845-1 at 2m cts. Loft hatches should be suitable designed and installed to ensure optimum air tightness. **TO ACHIEVE A U-VALUE OF 0.15W/m²K.**

NEW AND REPLACEMENT DOORS/WINDOWS - Glazed areas to be double glazed with 16-20mm argon gap and soft low-E glass. Glass to be toughened or laminated safety glass to BS 6206, BS EN 14479 or BS EN ISO 12543-3 and Part K of the current Building Regulations. The door and window openings should be limited to 25% of the extension floor area plus the area of any existing openings covered by the extension. Insulated plasterboard to be used in reveals to abut jambs and to be considered within reveal soffits. Fully insulated and continuous cavity closers to be used around reveals. Windows and door frames to be taped to surrounding openings using air sealing tape. Windows to be fitted with trickle vents to provide min 8000mm² background ventilation in accordance with Approved Document F. Local authority may insist on a SAP calculation to prove areas with large amount of glazing. This will involve extra fee if required. **TO ACHIEVE A U-VALUE OF 1.4W/m²K.**

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Principle Contractor is to ensure all materials and workmanship complies with Regulation 7 of the Building Regulations whether or not specifically stated on these drawings. It is the Principle Contractors' duty to ensure all works on site are approved by an appointed Building Control body.

Principle Contractor is to ensure dimensions are taken on site before procurement of any materials/work proceeding. Structural members are not to be ordered solely from this drawing.

Existing structure including foundations, beams, walls and lintels carrying new and altered loads are to be exposed and checked by Principle Contractor before commencing the works for adequacy prior to commencement of work and as required by the Building Control Officer. Any discrepancies please contact Thorns Young.

Principle Contractor to ensure full compliance with the amended CDM Regulations (2015) if the project requires.

This drawing, unless noted, does not represent compliance with the Party Wall Act 1996 and if required, all agreements are to be in place before works commence.

It is the Principle Contractors' responsibility to ensure Planning/Building Control approvals are in place prior to works commencing. Should works commence prior to relevant approvals Thorns Young Architectural accept no responsibility.

Do not scale from this drawing except for the purpose of Local Authority Planning department.

It is the client's responsibility to ensure the contractor has the latest set of drawings and calculation

A		Revision	
Date		Revision	
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