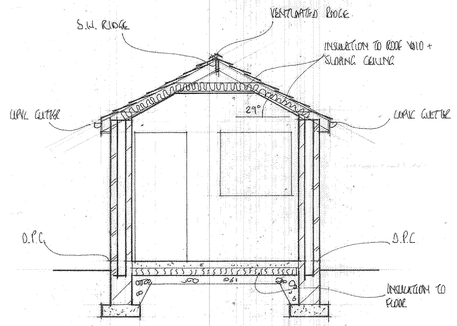


SECTION A-A

Foundations
Foundations to cavity walls to be constructed of concrete common brickwork up to 150 mm below ground level with Class B engineering brickwork from GL to DPC level externally and concrete block work internally. Walls built off 750 x 200 (C20 mix-20N/mm2) concrete strip foundations, at min depth of 1000mm, to suit local ground conditions.

Lintels over drains
RC lintels to be provided over drains passing through walls
Walls below ground level to be filled with concrete cavity filling to 225mm below lowest dpc level. There should not be:

Super Structure 150 cavity full fill (U value 0.18W/m2K)
New external walls - Facing brickwork/stonework to extend min 2 courses below ground level. New facing brickwork to match existing with 150mm cavity, fully filled with 150mm Dritherm 32 Ultimate. Installed in strict accordance with the manufacturers instructions
Inner blockwork to be - 0.15W/mK (4N/mm2) -
Internally finish with 12.5mm plasterboard on dabs with minimum 10mm airspace.

Brickwork good building practice
All new brickwork to be bonded to existing and cavities to be maintained - alternatively use proprietary bolted starter anchor system together with inserted insulation V.d.p.c. (installed in accordance with manufacturers recommendations)
Proprietary stainless steel DD140 wall ties to be provided to cavity walls at maximum 450mm vertical centres and 750mm horizontal centres - staggered across wall elevation. 225mm max vertical centres at reveals. Ties to be long enough to have 50mm minimum embedment into wall. Proprietary insulation clips to be provided to suit cavity insulation system. Wall ties to comply with BS:1234:1978 type DD140
All lintels to have 150mm end bearing.

DPC's
Cavity wall and internal block work walls to incorporate PVC type dpc at ground floor finished level minimum 150 mm off external ground level. Polypropylene cavity trays to be installed in cavity walls above openings, single storey roofs, complete with weep-holes @ maximum 1000 mm centres to BS 5628 Part 3.

Existing Structure
The existing structure including foundations, beams, walls and lintels carrying new and altered loads are to be exposed and checked for adequacy to support new imposed 'dead' and 'live' loading conditions prior to commencement of work and as required by the Local Authority Building Control Officer.

Roof insulation between on under rafters (U value 0.15W/m2K)
1 layers of 125mm Thermopitch TP10 between+50mm Thermopitch TP10 under+12.5mm plasterbd to allow sag of breather membrane, to provide a maximum "U" value of 0.15W/m2K, all fixed in accordance with manufactures instructions. Rafters overlaid with Tyvec SUPRO breather membrane with joints lapped and taped and roof to be finally covered with Marley smooth grey tiles, laid on 50 mm x 25 mm tanalised softwood battens, 100mm overlap.

Fixings
Strap down new roof and ceiling with 1000 x 5 x 38 mm mild steel straps at 2 centres fixed across two rafters/joists with 3.35x50 wire nails at rafter and ceiling tie level

Continuous Ventilated Ridge
Provide new continuous ventilated ridge to be mechanically fixed and bedded in sand/cement mortar, or dry fixed system in accordance with BS 5534 2014

Gutters and fascia
100 mm upvc gutter connected to existing falls to outlet. Fixed to 19 mm exterior grade plywood fascia boards. Provide 12 mm exterior grade plywood soffits fixed directly to underside rafters with continuous upvc soffit ventilators to vent roof space to BS 5250.

Heating
Extend all heating and hot water services from existing and provide new thermostatic valves to radiators. Heating system is to be designed, installed, tested and fully certified by a GAS SAFE registered specialist. All work to be in accordance with the Local Water Authority by laws, gas safety requirements and IEE Regulations.

Radiators
Provide and fit thermostatic control valves to radiators.

Timber
All new timber to be tanalized and stress graded 4
BS:4471 Part 1 (1978) Dimensions for softwood
BS:5268: Part 5 Preservatives Treatment for Structural Timber

Skirting
120 x20 mm half round skirting primed and painted three coats (1 gloss) to new extension

Smoke detector
Provide and install independent smoke alarm detector. Mains power with battery back up. Type Ei160 Series Easi-fit mains powered smoke alarms from Aico. If more than one smoke detector installed link together

Cavities
To be continuous with existing closed at eaves with Superlux

Cavity fill
Weak concrete mix. Fill in cavity to be 225 mm below DPC level

Cavity closer
Insert Isofoam XCC insulated cavity closer to all new openings all as document I 2013. Width and fixing to suit opening

Ground Floor Construction (u value 0.18W/m2K)
Leveling screed finish on 150mm concrete slab bed on a separating layer of building paper to BS 1521:1972 on 80mm thick Kingspan 'Kooltherm' K103 floorboard insulation on Visqueen 1200 d.p.m. on 20mm sand blinding on min. 150mm well consolidated hardcore.
Provide 25mm 'Kooltherm' insulation to external perimeter edges of slab. Visqueen d.p.m. to be turned up around perimeter edges of slab and tucked in under horizontal dpc of inner leaf.

Ceilings
To be 44x100mm@400 centres under drawn with 12.7 mm foil-backed plasterboard and skim finish. All to Trada Technology span tables for solid timber members in floors, ceilings and roofs for dwellings 2nd edition.

Windows and Doors.(replacement or for new extensions)
New window and doors to be timber including bifold doors, Pilkington glass, K glass range with 16 mm Argon filled air gap optitherm 4mm Opyifloat, soft low e coating u value to be 1.4W/m2K to windows and doors and 1.77W/m2K to bifolds with fully draught stripped open able light equivalent to minimum 1/20 floor area for purge ventilation and including minimum 8000mm2 trickle vents per habitable rooms and kitchen, 4000mm2 for non habitable rooms (bathroom, en-suite) for background ventilation in accordance with Part F 2010 Edition System1 Table 5.2a and based on 277m2 floor area-total equivalent ventilator area 194000m2. Frames to be lapped minimum 30 mm across cavity closer in accordance with Part L1A section 5.9 and Accredited Construction details under section 5.12 to limit thermal bridging. Details to be inspected on site in accordance with checklist to maintain quality assurance.
Any glazing within 800 mm of floor level, and within 1500 mm of floor level where within 300 mm from a door and all glazing to bifold doors to be safety glass to comply withBS6206.

Velux windows
Provide and fit in roof all as per manufacturers instructions new velux windows Ref No GHL M08 double rafters and trimmers to be fitted either side. Location and size as indicated. Insert all soakers and flashings and a u value to be 1.4W/m2K.

Lead work and flashings and any valleys.
Use Code 5 lead and laid according to lead development association. Flashing to be provided to all jambs and below window openings with welded up stands. Joints to be lapped min 150 mm and lead to be dressed 200 mm under tiles.

Condition Notes
1. The drawings relating to the proposed project are for the purpose of obtaining Planning approval only.
All work thereafter is undertaken solely at the Clients/ Contractors discretion and liability is therefore transferred.
2. In order to prepare these drawings, certain assumptions have been made which have to be verified both before and during the course of the works. Should at any time the existing construction be exposed which does not agree with these drawings or dimensions vary, then the engineer should be informed immediately and suitable actions taken.
3. All work must be carried out in accordance with the relevant building regulations and codes of practice.
4. Do not scale from drawings. Work only from figured dimensions. All dimensions to be checked on site and any discrepancies to be notified to the relevant bodies immediately.
5. The drawings relating to the proposed project must be read in conjunction with and checked against any structural engineer's or specialist drawings and details provided.
6. The Contractor is to notify Building Control at the appropriate stages of construction - necessary for them to determine the works statutory compliance.
7. Before work commences - ensure all Planning and/or Building Regulations Conditions have been resolved to the satisfaction of the Local Authority.

Lead work and flashings and any valleys.
Use Code 5 lead and laid according to lead development association. Flashing to be provided to all jambs and below window openings with welded up stands. Joints to be lapped min 150 mm and lead to be dressed 200 mm under tiles.

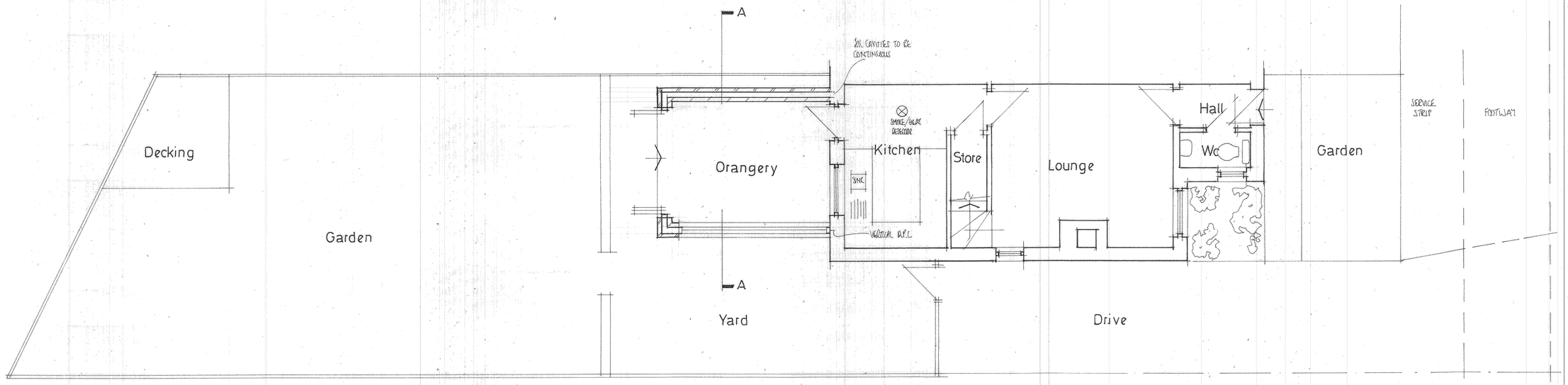
Lighting
Provide 100% of new primary light fitting units to new extension to be o: type, which will only take high efficiency lamps Provide min one third of primary lights to have a luminous efficiency greater than 40 lumes per circuit watt. The amount/type of light fittings and electrical wall socket is to be agreed with the owner before work commences on site.

Electrical Contractor (Competent Person)
All the wiring and electrical work will be designed, installed, inspected and tested in accordance with the requirements of
BS 7671, the IEE 18th edition wiring guidance and Building Regulations Part P (electrical safety) by a competent person registered with an electrical self certification body authorised by the Secretary of State, AND
The competent person is to send to the approved inspector a 'self certification certificate' within 30 days of the completion of the electrical works. The Client is to be provided with a copy of the 'self certification certificate' and a BS 7671 electrical installation test certificate.

Electrical Fittings.
All sockets to be positioned above 450 mm from floor level, and all switched to be positioned between 1350mm and 1450mm from finished floor level to comply with Part M of the Building Regulations. 100% internal light fittings and all external lights to be LED lamps-luminous efficiency greater than 45 lamp lumens/circuit-watt and total output greater than 40 lamp lumens, with and external lights to incorporate daylight sensor, all in accordance with Part L1B section 4.24 Building Regulations (2010 Edition with 2013 amendments) and Table 42 of Domestic Building Service Compliance Guide 2013 Edition.
Electrical installation to be designed and installed and tested on completion by an NICEIC registered contractor in accordance with BS 7671:2001 to comply with Part P of Building Regulations.

Notes
These drawings are for the purpose of obtaining Planning permission only. All work thereafter is undertaken solely at the clients/contractors discretion and liability is therefore transferred. With regards to any matters relating to Planning or Building Regulation, they are solely at the discretion of the client, no information or advice given prior to or after the drawings are completed are for information only and not binding. All work must be carried out in accordance with the relevant building regulations and codes of practice. Do not scale from drawing. All dimensions to be checked on site and any discrepancies to be notified to the relevant bodies immediately.
Services i.e. Electric, heating, plumbing etc. Are not included in these drawings.

Smoke alarms and heat detectors.
Fire Safety Approved Doc B
Where new habitable rooms are provided above ground level, a fire detection system shall be installed. Provide a mains linked smoke alarm in the circulation space on all levels in accordance with Paragraph 1.10 t0 1.18. Also provide 1 no smoke detector to ground floor.
There will be a compatible interlinked heat detector or heat alarm in the kitchen, in addition to whatever smoke alarms are needed in the circulation space.



GROUND FLOOR PLAN

Scale Bar

PROJECT
PROPOSED SINGLE STOREY ORANGERY EXTENSION TO REAR OF PROPERTY.
DRAWING TITLE
PROPOSED LAYOUT AND SECTION.
CLIENT
MR. L. WILLIAMS.
ADDRESS
8, STUBBS ROAD, ROCHDALE. OL11 2BB.
SCALE
SCALE 1:50@A1
DATE
JUN 2024.
DRAWING No
FO 06245905/3.