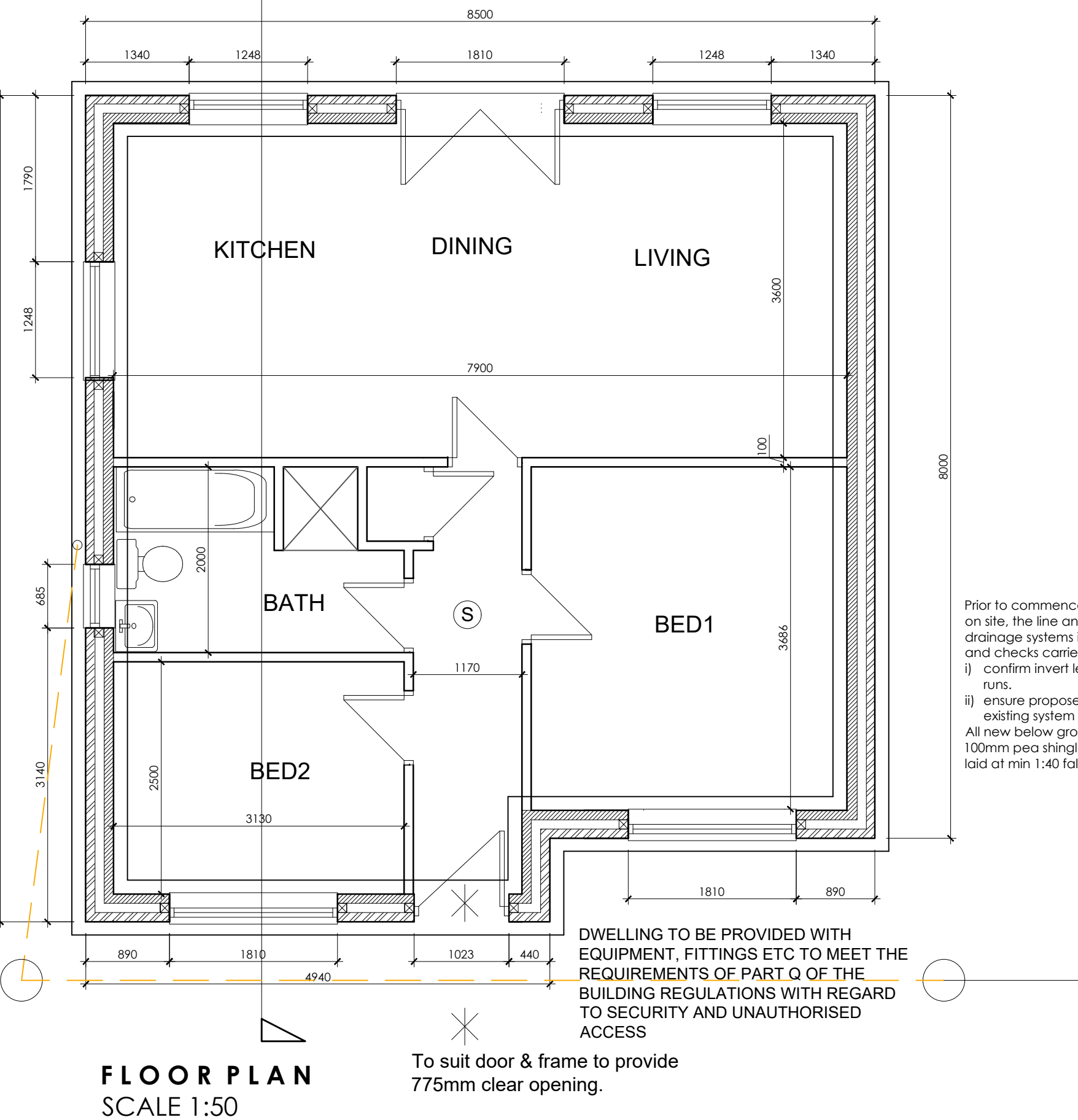
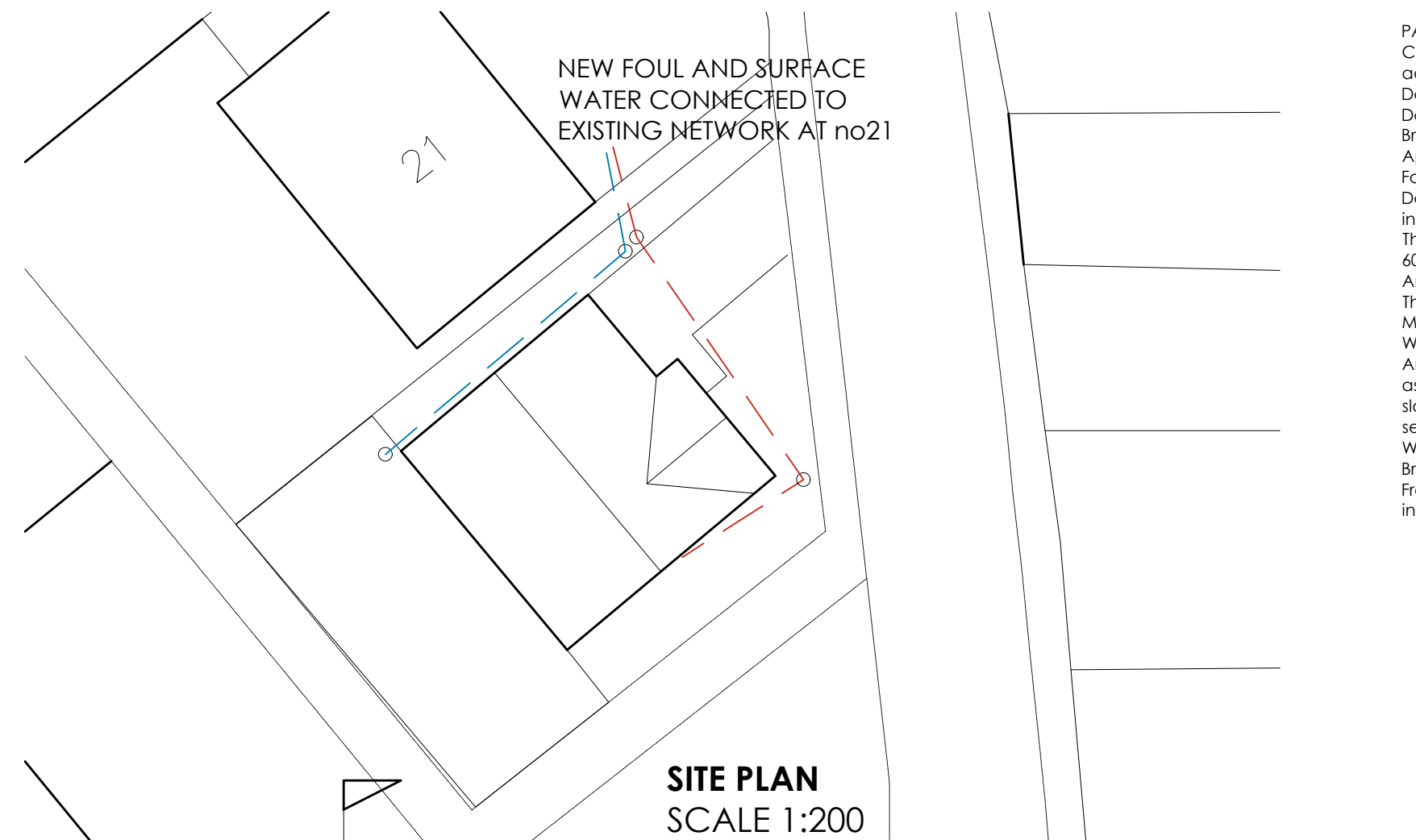
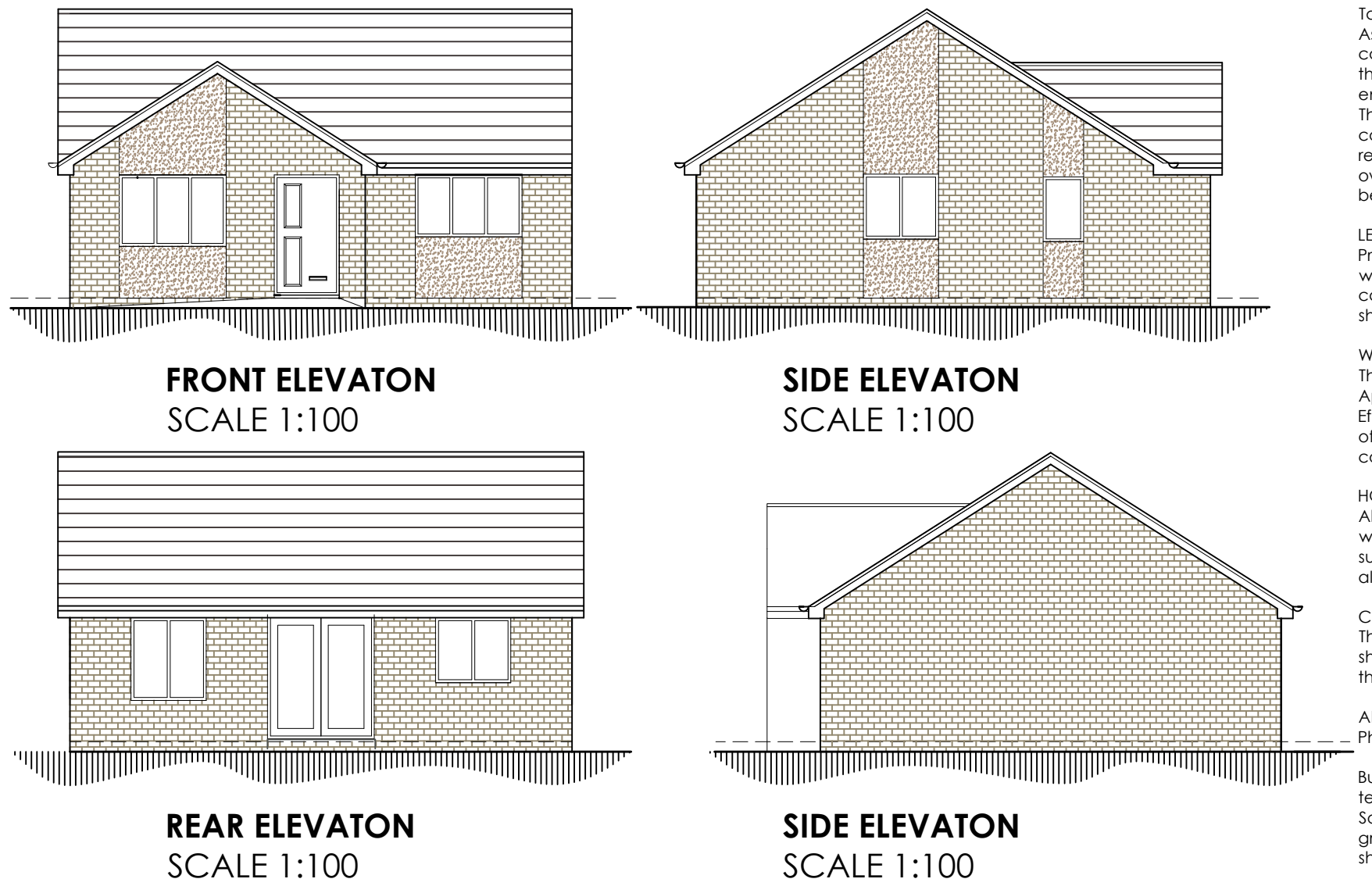




TARGET AND DWELLINGS EMISSIONS RATES
Target emissions rate (TER) is to be submitted to building control in compliance with The Standard Assessment Procedure (SAP) and Approved Document L1A before works commence on site. To comply with Regulation 26 and Regulation 26A the dwellings emissions rate (DER) must not exceed the TER and the dwelling fabric energy efficiency (DfEE) is to be no greater than target fabric energy efficiency (TfEE).
The DER, based on the buildings as constructed and incorporating any changes made during construction, and a registered Energy Performance Certificate (EPC) accompanied by a recommendation report in compliance with SAP 2012 and Regulation 29, is to be given to the owner of the building and submitted to building control, no later than 5 days after the work has been completed.

LEVEL DWELLING APPROACH
Provide a level approach to the principal entrance door no steeper than 1:20 and at least 900mm wide, with cross falls no greater than 1:40. Approach surface material to be firm and non-slip, capable of supporting the weight of a wheel chair and its user (loose material such as gravel and shingle would not be suitable).

WATER EFFICIENCY
The estimated water consumption not to exceed 125 litres per person per day in accordance with Approved Document G2 (or 110l per-person if required by the planning conditions). Water Efficiency to be calculated using the 'Water Efficiency Calculator for New Dwellings' or from the list of fittings from the 'Table of fittings' in ADG to comply with part G. The results submitted to building control before works commence on site.

HOT WATER SUPPLY
All bathrooms, washbasins, bidet, baths and showers to be provided with adequate hot and cold water supply in accordance with Approved Document G3. Washbasin with hot and cold water supply to be provided in or adjacent to all rooms containing a WC. A sink with hot and cold water also to be provided to any area where food is being prepared.

CONTROL OF WATER TEMPERATURE
The installation of the hot water supply to comply with Approved Document G3. All baths and showers are to be fitted with an inline thermostatic mixing valve to ensure that the temperature of the water delivered to the bath is limited to 48°C.

APPROVED DOCUMENT R
Physical infrastructure for high-speed electronic communications networks

Building to be equipped with high-speed-ready-in-building physical infrastructure, up to a network termination point for high-speed electronic communications networks.
So that copper or fibre-optic cables or wireless devices capable of delivering broadband speeds greater than 30 Mbps can be installed. A suitable position for at least one network termination point should be provided for dwelling as well as a suitable access point

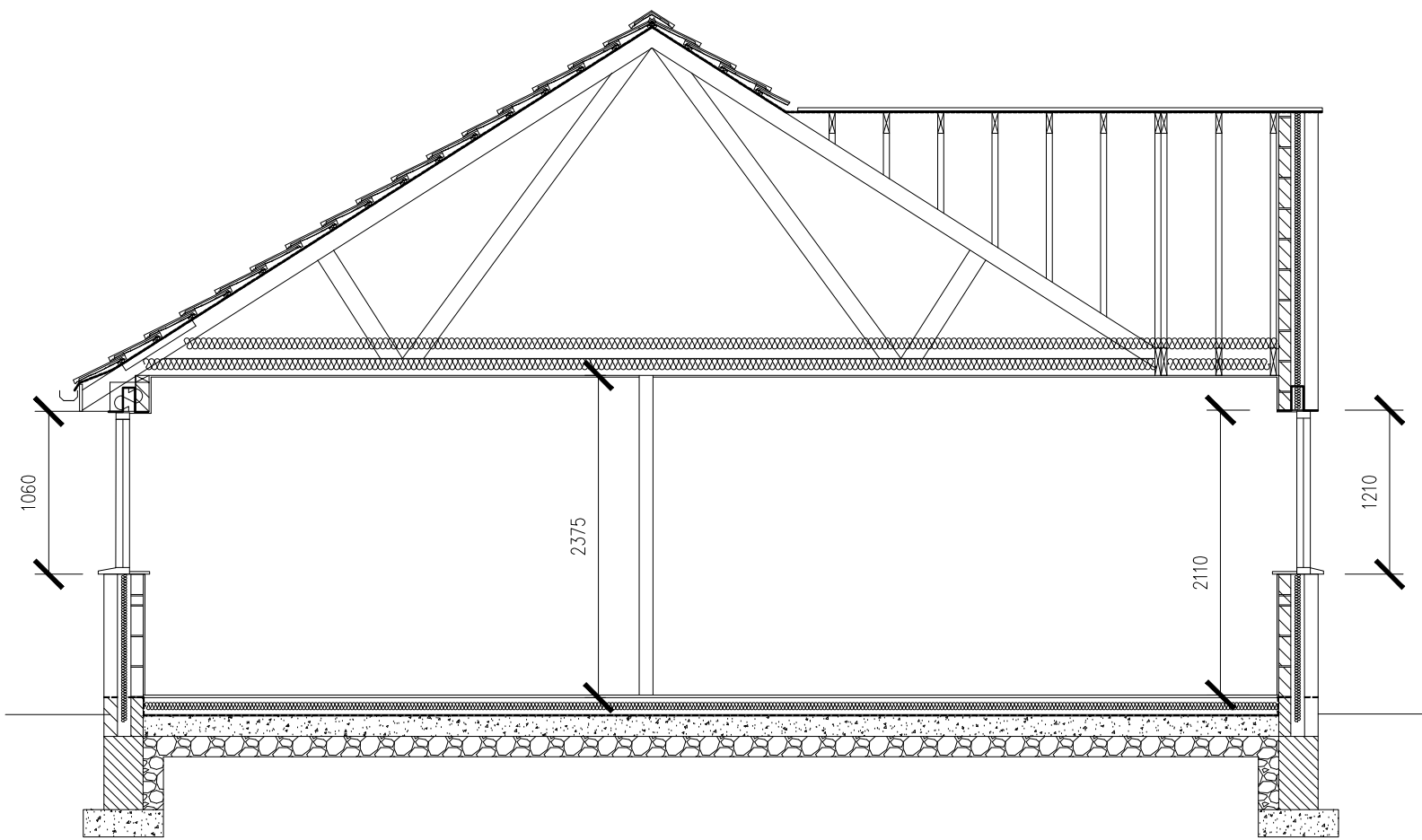
If more than one dwelling must have a common access point for high-speed electronic communications networks

PART Q - SECURITY
Confirmation required that all doors and windows are to be installed in accordance with the advice stated in PAS24:2016 or alternatively comply with the requirements set out in Approved Document Q – Appendix B.
Doors to be manufactured to a design that has been shown by test to meet the requirements of British Standard publication PAS24:2016 or designed and manufactured in accordance with Appendix B or Approved Document Q.
For example:
Doors to be fitted with a viewer, door chain and mechanically fixed as the manufacturer's installation guide.
The door set should be manufactured from solid or laminated timber with a minimum density of 60kg/m³.
Any panel in the door must be a min 15mm thick and suitably secured in place.
The smaller dimension of the panel must be no longer than 230mm in either width or height.
Main front doors should be fitted with multipoint locking system.

Windows:
Any part of a window or doorway, which is within 2m vertically of an accessible level surface such as the ground or basement level, or an access balcony, or windows within 2m vertically of a flat or sloping roof (with a pitch of less than 30 degrees) that is within 3.5m of ground level should be secure windows in accordance with paragraphs 2.2 and 2.3 of Approved Document Q.
Windows to be made to a design that has been shown by test to meet the security requirements of British Standards publication PAS 24:2016.
Frames to be mechanically fixed to the structure of the building in accordance with manufacturer's installation instructions.



LOCATION PLAN
SCALE 1:1250



SECTION
SCALE 1:50

INTERNAL LIGHTING
Internal energy efficient light to be fitted as calculated in the DER and in compliance with the Domestic Building Services Compliance Guide. Provide low energy light fittings not less than three per four (excluding infrequently accessed spaces used for storage, such as cupboards and wardrobes). Low energy light fittings should have lamps with a luminous efficacy greater than 45 lamp lumens per circuit-watt and a total output greater than 400 lamp lumens. Fixed internal lighting to be pin based fluorescent or compact fluorescent lamps or low energy bayonet or Edison screw base compact fluorescent lamps.

HEATING
All radiators to have TRVs. Heating system to be designed, installed, tested and fully certified by a GAS SAFE registered specialist. All work to be in accordance with the Local Water Authorities bye laws, The Gas Safety (Installation and Use) Regulations 1998 and IEE Regulations.

NEW GAS BOILER
Heating and hot water will be supplied via a wall mounted condensing vertical balanced flue pressurised boiler with a min SEDBUK rating of 90%. System to be fitted with thermostatic radiator valves and all necessary zone controls and boiler control interlocks. The system will be installed, commissioned and tested by a GAS SAFE Registered Specialist and a certificate issued to demonstrate that the installation complies with the requirements of Part L. Carbon monoxide alarm to be positioned near boiler.
Boiler flue to be installed in accordance with Approved Document J. British Gas requirements and manufacturer's guidance. Flues to be terminated externally with metal terminal guard and positioned a minimum of 600mm away from any openings into the building. Where the flue passes through a wall, floor or roof, enclose in a non combustible sleeve. Where the flue is within a void provide appropriate and sufficiently sized access to allow inspection of the flue. No combustible materials to be within 50mm of the flue.
Provide new metered gas supply to the dwelling. All works to comply with gas authority standards.
Heating system to be designed, installed, tested and fully certified by a GAS SAFE registered specialist. All work to be in accordance with the Local Water Authorities bye laws, The Gas Safety (Installation and Use) Regulations 1998 and IEE Regulations.

SMOKE DETECTION
Mains operated linked smoke alarm detection system to BS EN 14604 and BS 5839-6:2019 to at least a Grade D category LD3 standard and to be mains powered with battery back up. Smoke alarms should be sited so that there is a smoke alarm in the circulation space on all levels/ stores and within 7.5m of the door to every habitable room. If ceiling mounted they should be 300mm from the walls and light fittings. Where the kitchen area is not separated from the stairway or circulation space by a door, there should be an interlinked heat detector in the kitchen.

SAFETY GLAZING
All glazing in critical locations to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1:2011 and Part K (Part N in Wales) of the current building regulations. I.e. within 1500mm above floor level in doors and side panels within 300mm of door opening and within 800mm above floor level in windows.

WINDOWS
Windows to be double glazed with 16mm argon gap and soft coat low-E glass. Window Energy Rating to be Band C or better and to achieve U-value of 1.6 W/m²K.

DOORS
Doors to achieve a U-Value of 1.80W/m²K. Glazed areas to be double glazed with 16mm argon gap and soft low-E glass. Glass to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1:2011 and Part K (Part N in Wales) of the current Building Regulations.

BACKGROUND AND PURGE VENTILATION
Background ventilation - Controllable background ventilation via trickle vents in compliance with Approved Document F within the window frame to be provided to new habitable rooms at a rate of min 5000mm²; and to kitchens, bathrooms, WCs and utility rooms at a rate of 2500mm².
Purge ventilation - New windows/rooftlights to have openable area in excess of 1/20th of their floor area. If the window opens more than 30° or 1/10th of their floor area if the window opens less than 30°.
Internal doors should be provided with a 10mm gap below the door to aid air circulation.
Ventilation provision to be in accordance with the Domestic Ventilation Compliance Guide.

EXTRACT TO BATHROOM
Bathroom to have mechanical vent ducted to external air or provide min 15 litres / sec extraction. Vent to be connected to light switch and to have 15 minute over run if no window in room. Internal doors should be provided with a 10mm gap below the door to aid air circulation. Ventilation provision in accordance with the Domestic Ventilation Compliance Guide. Intermittent extract fans to BS EN 13141-4. Cooker hoods to BS EN 13141-3. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body.

EXTRACT TO KITCHEN
Kitchen to have mechanical ventilation with an extract rating of 60/sec or 30/sec if adjacent to hob to external air, sealed to prevent entry of moisture. Internal doors should be provided with a 10mm gap below the door to aid air circulation. Ventilation provision in accordance with the Domestic Ventilation Compliance Guide. Intermittent extract fans to BS EN 13141-4. Cooker hoods to BS EN 13141-3. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body.

RAINWATER DRAINAGE
Rainwater goods to be new 110mm UPVC half round gutters taken and connected into 68mm dia UPVC downpipes. Rainwater taken to new soakaway, situated a min distance of 5.0m away from any building, via 110mm dia UPVC pipes surrounded in 150mm granular fill. Soakaway to be min of 1 cubic metre capacity (or to depth to Local Authorities approval) with geotextile surround to prevent migration of fines. If necessary carry out a porosity test to determine design and depth of soakaway.
Paved areas to be suitably drained free from storm water.

UNDERGROUND FOUL DRAINAGE
Underground drainage to consist of 100mm diameter UPVC proprietary pipe work to give a 1:40 fall. Surround pipes in 100mm pea shingle. Provide 600mm suitable cover (900mm under drive). Shallow pipes to be covered with 100mm reinforced concrete slab over compressible material. Provide rodding access at all changes of direction and junctions. All below ground drainage to comply with BS EN 1401-1.

INSPECTION CHAMBERS
Underground quality proprietary UPVC 450mm diameter inspection chambers to be provided at all changes of level, direction, connections and every 45m in straight runs. Inspection chambers to have ball down double sealed covers in buildings and be adequate for vehicle loads in driveways.

ABOVE GROUND DRAINAGE
All new above ground drainage and plumbing to comply with BS EN 12056-2 for sanitary pipework. All drainage to be in accordance with part H of the Building Regulations. Wastes to have 75mm deep anti vac bottle traps and rodding eyes to be provided at changes of direction.

Size of wastes pipes and max length of branch connections (if max length is exceeded then anti vacuum traps to be used)
Wash basin - 1.7m for 32mm pipe 3m for 40mm pipe
Bath/shower - 3m for 40mm pipe 4m for 50mm pipe
W/c - 6m for 100mm pipe for single WC
All branch pipes to connect to 110mm soil and vent pipe terminating min 900mm above any openings within 3m.
Or to 110mm upvc soil pipe with accessible internal air admittance valve complying with BS EN 12380, placed at a height so that the outlet is above the trap of the highest fitting.
Waste pipes not to connect within 200mm of the WC connection. Supply hot and cold water to all fittings as appropriate.

SOIL AND VENT PIPE
Svp to be extended up in 110mm dia UPVC and to terminate min 900mm above any openings within 3m. Provide a long radius bend at foot of SVP. Internal soil vent pipes to be wrapped in 25mm unfaced mineral fibre and enclosed in minimum two layers of 12.5mm plasterboard (15g/m² mass per unit area) to provide adequate sound proofing. Soil and vent passing through floors to be enclosed in ducts comprising of timber framing faced with fire line plasterboard to achieve half hour fire resistance. All ducts to be fire stopped at floor levels using mineral wool quilt packing.

AUTOMATIC AIR VALVE
Ground floor fittings from wc to be connected to new 110mm UPVC soil pipe with accessible internal air admittance valve complying with BS EN 12380, placed at a height so that the outlet is above the trap of the highest fitting and connected to underground quality drainage enclosed with pea gravel to a depth of 150mm.

PIPEWORK THROUGH WALLS
Where new pipework passes through external walls the pipe work is to be provided with 'rocker pipes' at a distance of 150mm either side of the wall face. The 'rocker pipes' must have flexible joints and be a maximum length of 600mm.
Alternatively provide 75mm deep pre-cast concrete plank lintels over drain to form opening in wall to give 50mm space all round pipe; mask opening both sides with rigid sheet material and compressible sealant to prevent entry of fill or vermin.

THERMAL BRIDGING
Care shall be taken to limit the occurrence of thermal bridging in the insulation layers caused by gaps within the thermal element, (i.e. around windows and door openings). Reasonable provision shall also be made to ensure the dwelling is constructed to minimise unwanted air leakage through the new building fabric.

HEALTH AND SAFETY
The contractor is reminded of their liability to ensure due care, attention and consideration is given in regard to safe practice in compliance with the Health and Safety at Work Act 1974.

MATERIALS AND WORKMANSHIP
All works are to be carried out in a workmanlike manner. All materials and workmanship must comply with Regulation 7 of the Building Regulations, all relevant British Standards, European Standards, Agreement Certificates, Product Certification of Schemes (Kite Marks) etc. Products conforming to a European technical standard or harmonised European product should have a CE marking.

SITE INVESTIGATION
A survey of the site is to be carried out by a suitably qualified person including an initial ground investigation, a desk study and a walk over survey. A copy of all reports and surveys to be sent to building control for approval before works commence on site.
Any asbestos, contaminated soil or lead paint found on the site is to be removed by a specialist. Asbestos is to be dealt with in accordance with the Control of Asbestos Regulations 2006.

SITE PREPARATION
Ground to be prepared for new works by removing all unsuitable material, vegetable matter and tree or shrub roots to a suitable depth to prevent future growth. Sited up, cap off, disconnect and remove existing redundant services as necessary. Reasonable precautions must also be taken to avoid danger to health and safety caused by contaminants and ground gases e.g. landfill gases, radon, vapours etc on or in the ground covered, or to be covered by the building.

LINELS
For uniformly distributed loads and standard 2 storey domestic loadings only
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. All pre-stressed concrete lintels to be designed and manufactured in accordance with BS EN 1992-1, 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 manufacture standard tables. Stop ends, DPC trays and weep holes to be provided above all externally located lintels.

STRIP FOUNDATION
Provide 225mm x 600mm concrete foundation, concrete mix to conform to BS EN 206-1 and BS 8500-2. All foundations to be a minimum of 1000mm deep. exact depth 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 8004:1986 Code of Practice for Foundations. 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 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.

SOLID FLOOR INSULATION OVER SLAB
To meet min U value required of 0.22 W/m²K
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 a VCL on slab with min 100mm thick Celotex GA4000.
25mm insulation to continue around floor perimeters to avoid thermal bridging. A VCL should be laid over the insulation boards and turned up 100mm of room perimeters behind the skirting, all joints to be sealed 150mm and sealed. Finish over the insulation with a floating layer of min 20mm tongue and groove softwood boards or moisture resistant particle/chipboard grade type C4 to BS EN 312:2010 as required. Lay with staggered joints.
Where drain runs pass under new floor, provide A142 mesh 1.0m wide within bottom of slab min 50mm concrete cover over length of drain.

WALLS BELOW GROUND
All new walls to have Class A blockwork below ground level or alternatively semi engineering brickwork in 1:4 masonry cement or equal approved specification. 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.

Full fill Cavity Wall
To achieve minimum U Value of 0.28W/m²K
New cavity wall to comprise of 105mm suitable facing brick. Full fill cavity with 100mm Driftherm32 cavity insulation as manufacturer's details. Inner leaf to be 100mm block, K value 1.13, e.g. Lafarge Stancrete. Internal finish to be 12.5mm plasterboard on dabs. Walls to be built with 1:1:6 cement mortar.

DPC
Provide horizontal strip polymer (hyload) damp proof course to both internal and external skins minimum 150mm above external ground level. New DPC to be made continuous with existing DPC's and with floor DPM. Vertical DPC to be installed at all reveals where cavity is closed.

WALL TIES
All walls constructed with stainless steel vertical twist type retaining wall ties built in at 750mm cts horizontally, 450mm vertically and 225mm cts at reveals and corners in staggered rows. Wall ties to be suitable for cavity width and in accordance with BS 5628 and BS EN 845-1.

MOVEMENT JOINTS
Movement joints to be provided at the following maximum spacing:
Clay brickwork - 12m.
Calcium silicate brick - 7.5-9m.
Lightweight concrete block - density not exceeding 1,500kg/m³ - 7.5-9m.
Dense concrete block - density exceeding 1,500kg/m³ - 7.5-9m.
Any masonry in a parapet wall (length to height ratio greater than 3:1) - half the above spacings and 1.5m from corners.
Movement joint widths for clay bricks to be not less than 1.3mm/m i.e. 12m = 16mm and for other masonry not less than 10mm.
Additional movement joints may be required where the aspect ratio of the wall (length : height) is more than 3:1.
Considerations to be given to BS EN 1996-1-2:2005 Eurocode 6. Design of masonry structure.

CAVITIES
Provide cavity trays over openings. All cavities to be closed at eaves and around openings using Thermabate or similar non combustible insulated cavity closers. Provide vertical DPC's around openings and abutments. All cavity trays must have 150mm upstands and suitable cavity weep holes (min 2) at max 900mm centres.

CAVITY BARRIERS
30 minute fire resistant cavity barriers to be provided at all tops of walls, gable end walls and vertically at junctions with separating walls & horizontally at separating walls with cavity tray over installed according to manufacturer's details.

TRUSSED RAFTER ROOF
Pitched roof to be formed using proprietary prefabricated manufactured trusses. Design of roof trusses to be produced by specialist truss manufacturer to BS EN 595:1995 and submitted to Building Control for approval prior to commencement of work. Trusses to be placed at max 600cts in accordance with BS 8103 and BS EN 1995-1 on suitable wall plates fixed using proprietary galvanised steel truss clips. All strapping, fixing and bracing to be in accordance with manufacturer's instructions. Mechanically fix trusses to 100 x 50mm sw treated wall plates using galvanized steel truss clips.
Form ceiling using 12.5mm plasterboard and min 3mm thick multi-finish plaster and lay 150mm Rockwool insulation between ceiling joists with a further 170mm layer over joists (cross direction). Provide polythene vapour barrier between insulation and plasterboard. Ensure opening at eaves level at least equal to continuous strip 25mm wide in 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.

LEAD WORK AND FLASHINGS
All lead flashings, any valleys or soakers to be Code 5 lead and laid according to Lead Development Association. Flashings to be provided to all joints and below window openings with welded upstands. Joints to be lapped min 150mm and lead to be dressed 200mm under flies, etc. All work to be undertaken in accordance with the Lead Development Association recommendations.

INTERNAL STUD PARTITIONS
100mm x 50mm softwood treated timber studs at 400mm cts with 50 x 100mm head and sole plates and solid intermediate horizontal noggin's at 1/3 height or 450mm. Provide min 10kg/m² density acoustic soundproof quilt tightly packed (e.g. 100mm Rockwool or Isovol mineral fibre sound insulation) in all voids the full depth of the stud. Partitions built off doubled up joists where partitions run parallel or provide noggin's where at right angles, or built off DPC on thickened concrete slab if solid ground floor. Walls faced throughout with 12.5mm plaster board with skim plaster finish. Taped and jointed complete with beads and stops.

ELECTRICAL
All electrical work required to meet the requirements of Part P (electrical safety) must be designed, installed, inspected and tested by a competent person registered under a competent person self certification scheme such as BRE certification Ltd, BS, NICEIC Certification Services or Zurich Ltd. An appropriate BS7671 Electrical Installation Certificate is to be issued for the work by a person competent to do so. A copy of a certificate will be given to Building Control on completion.

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ARCHITECTURAL SERVICES			Client.			MR M. FITZGERALD											
Project.			PROPOSED DWELLING AT 21 GREENACRES, HOYLAND BARNSELY, S74 0HL			Date. JUNE 2021			Scale. 1:50 @ A1								
Drawing Title.			PLANS, SECTION & ELEVATIONS			Ref. 16-187			Dwg. No. 03								
Date			Suffix			Description			Date			Suffix			Description		