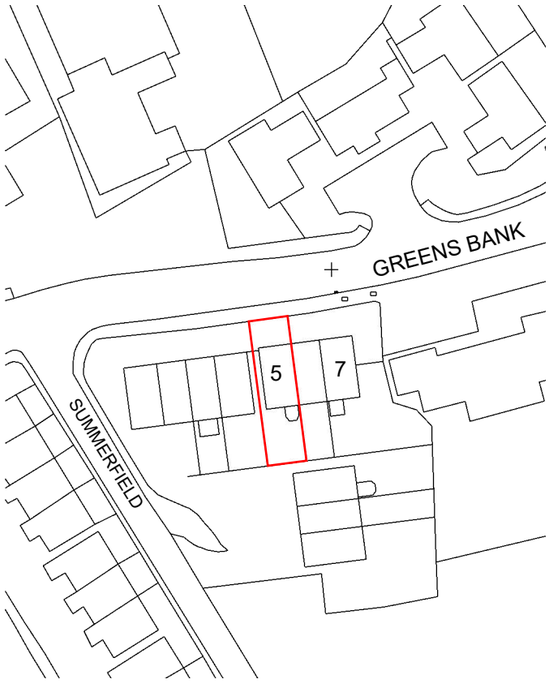
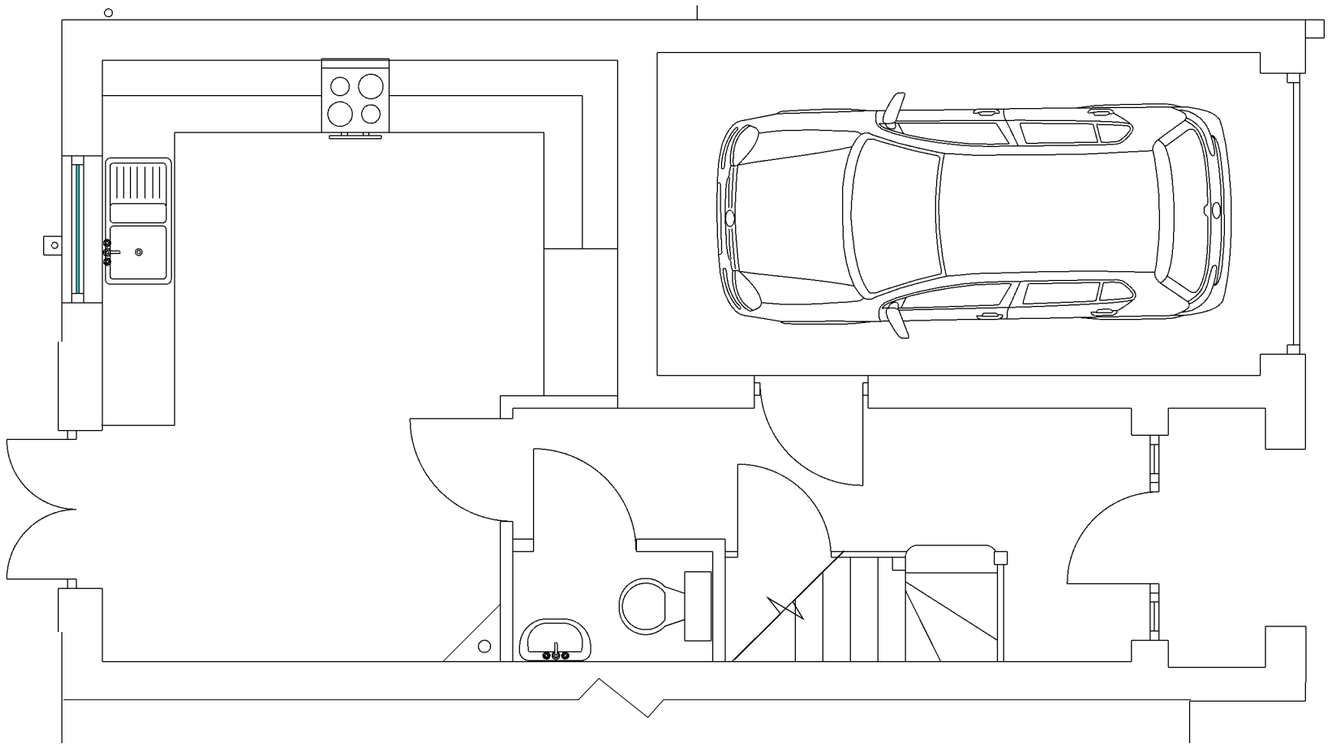
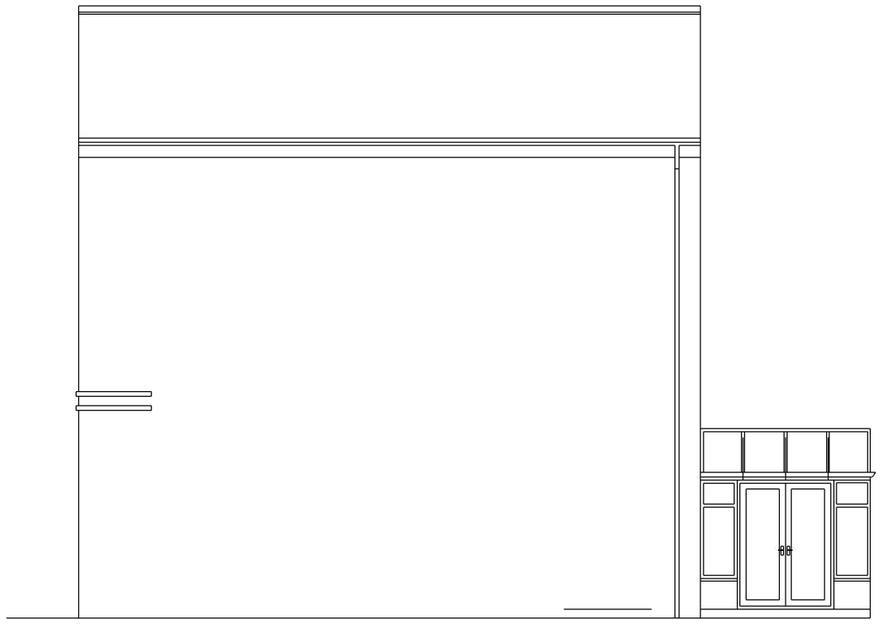




EXISTING FRONT ELEVATION



EXISTING SIDE ELEVATION

EXISTING REAR ELEVATION

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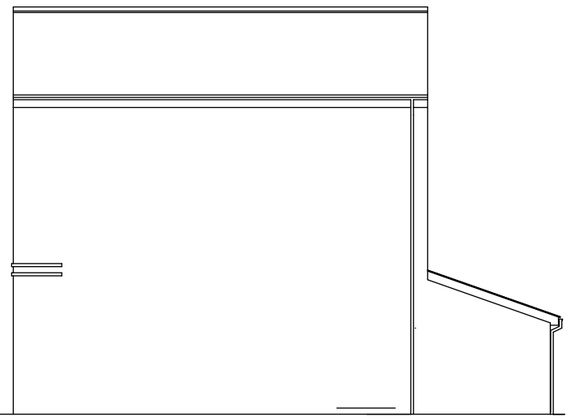
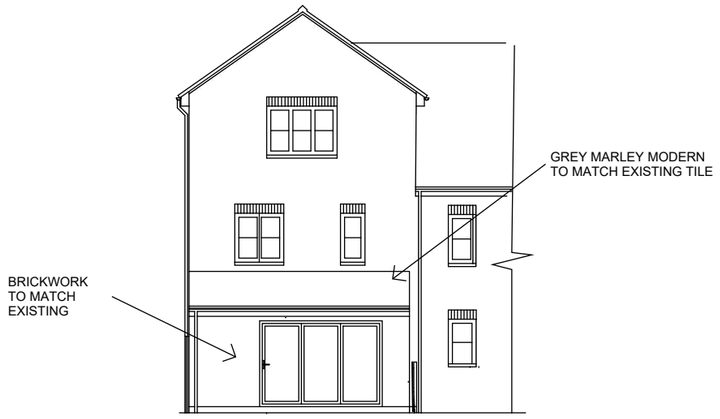
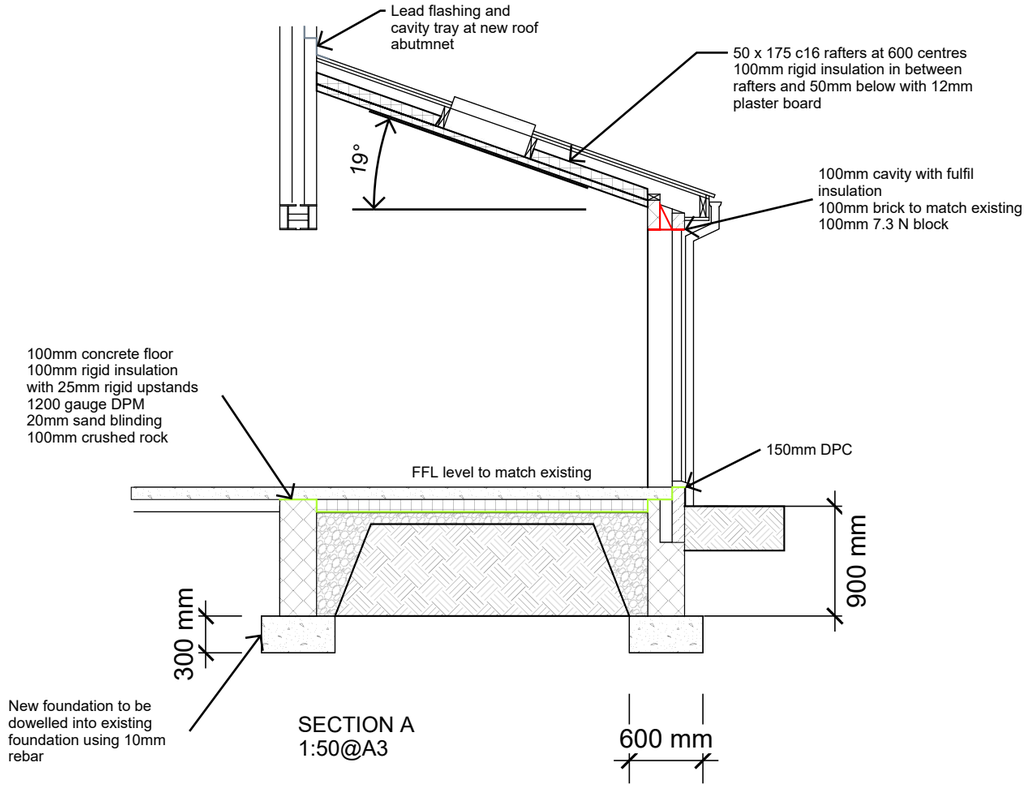
FRONT ELVEATION
1:150 @ A3



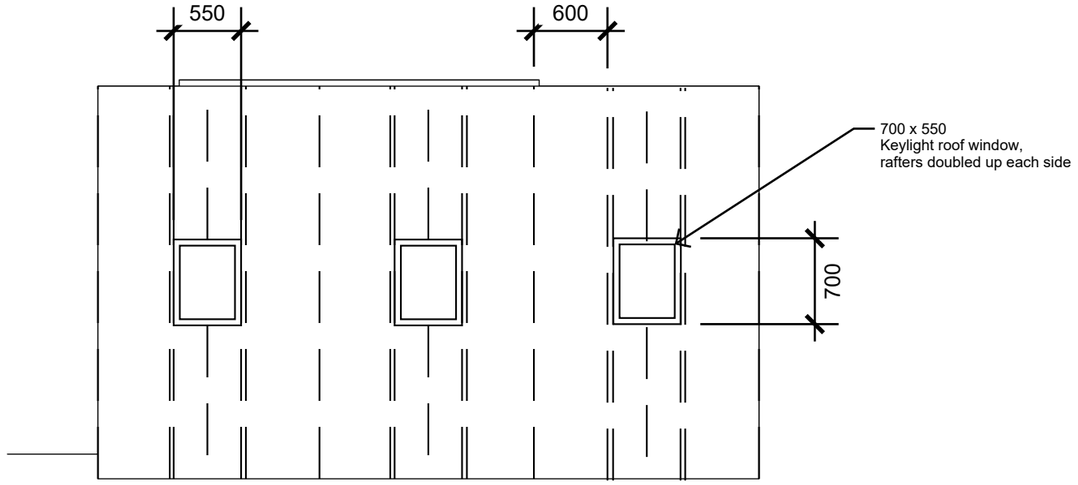
PROPOSED
SIDE ELEVATION
1:150@A3



PROPOSED
REAR ELEVATION
1:150@A3



SECTION A
1:50@A3



PROPOSED
ROOF PLAN
1:50@A3

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Proposed
elevations &
section

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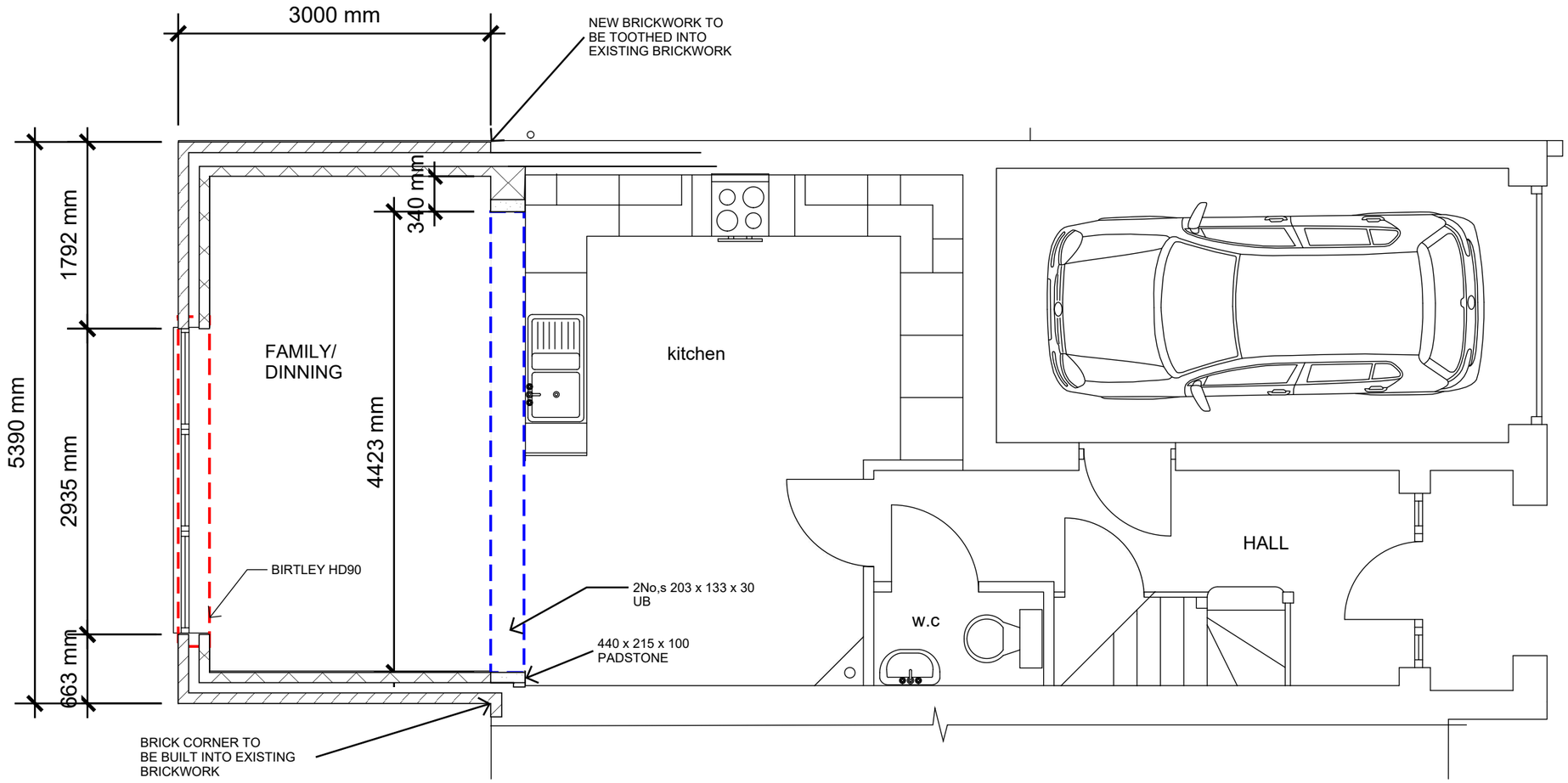

NOTES

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.

STRIP FOUNDATION

Provide 300mm 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 below ground level, exact depth to be agreed on site with Building Control Officer to suit site conditions. All constructed in accordance with 2004 Building Regulations A1/2 and BS 8004:1986 Code of Practice for Foundations. Ensure foundations are constructed below invert level of any adjacent drains. 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.

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.

EXISTING TO NEW WALL

Cavities in new wall to be made continuous with existing where possible to ensure continuous weather break. If a continuous cavity cannot be achieved, where new walls abut the existing walls provide a movement joint with vertical DPC. All tied into existing construction with suitable proprietary stainless-steel profiles.

FULL FILL NEW CAVITY WALL

Fully fill the cavity with 100mm Rockwool Cavity insulation as manufacturer's details. Inner leaf to be 100mm 7.3N concrete block. External leaf to be 100mm brick to match existing.
Internal finish to be 12.5 mm plasterboard on dabs. Walls to be built with 1:1:6 cement mortar

LINTELS

Lintel widths are to be equal to wall thickness. Lintels to have a minimum bearing of 150mm on each end. Proprietary insulated steel lintels suitable for spans and loadings in compliance with Approved Document A and lintel manufactures standard tables. Stop ends, DPC trays and weep holes to be provided above all externally located lintels.

PITCHED ROOF CONSTRUCTION

Tiles to match existing on 50 x 25mm pressure treated sw battens on breathable membrane.
Bracing to comprise of:
175 x 50mm c16 timber 600mm centers and doubled up around roof lights
100 x 25mm longitudinal ceiling ties with 1000 x 30mm galvanised straps mechanically fixed to blockwork every 2000m.
100 x 30mm galvanised straps every 2000mm to secure roof at each gable.
100mm Celotex rigid insulation or similar in-between each rafter with 50mm Celotex rigid insulation under the rafters tightly butted together sealed with aluminium vapour check tape, 12.5mm vapour check plasterboard finish and skim.
Eaves to be formed using rafters supported on 100 x 50mm pressure treated wall plate. Provide 1000 x 30 x 5mm galvanised holding down straps at 2000mm max centres.
Continuous cross roof ventilation provided via proprietary eaves ventilators to provide equivalent of 10mm continuous air gap.

NEW FLOOR

To meet minimum U value required of 0.22W/m2K. Solid ground floor to consist of 100mm consolidated well-rammed hardcore. Blinded with 20mm 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 100mm Kingspan Kooltherm K103. 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 100mm concrete finishing screed with light mesh reinforcement

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, BSI, 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.

HEATING

Extend all heating and hot water services from existing and provide new TVRs to radiators. 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.

BACKGROUND AND PURGE VENTILATION

Background ventilation - Controllable background ventilation via trickle vents to BS EN 13141-3 within the window frame to be provided to new habitable rooms at a rate of min 5000mm2 and to kitchens, bathrooms, WC's and utility rooms at a rate of 2500mm2. 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.

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Ground floor plan

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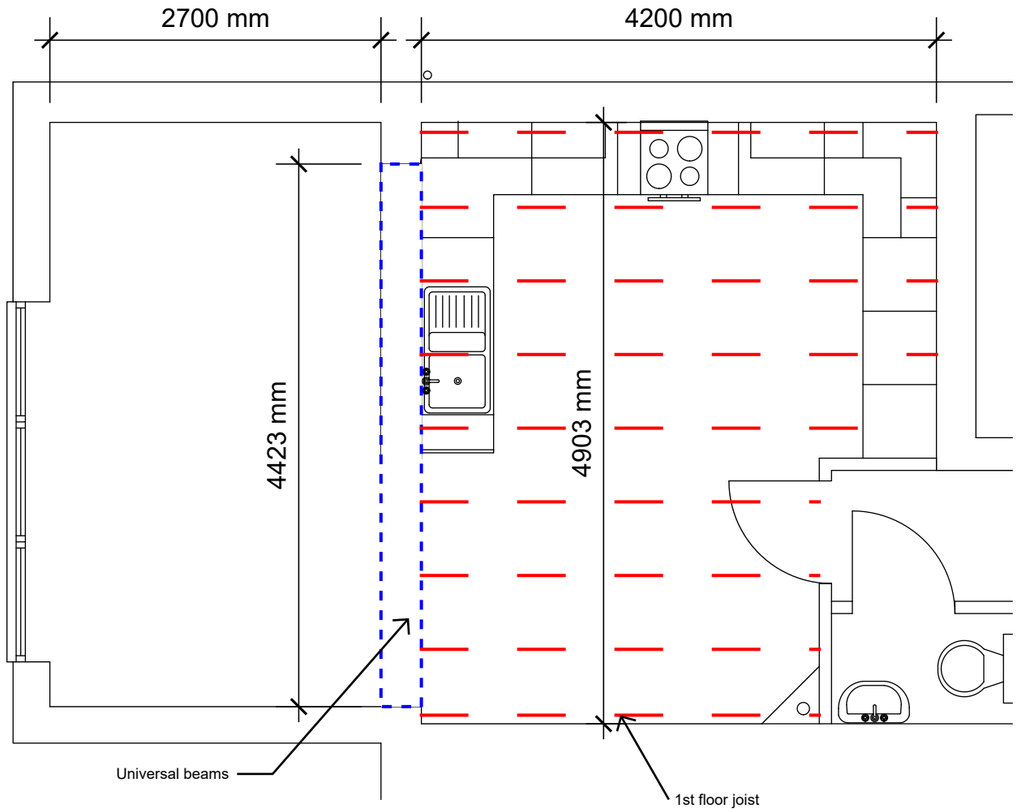

Load details

Roof

Dead load	1.5KN/m2
Imposed load	0.85KN/m2
Span	2.7m
Pitch	19 degree

Floor

dead load	0.6KN/m2
imposed load	1.5KN/m2
span	4.2m

Ceiling

Dead load	0.25KN/m2

Walls

Blockwork with plaster	2.2KN/m2
Brickwork	2 KN/m2
Storey height	2.4m
Partitions	0.25KN/m2
Partition length supported on 1st floor joists	5.1m

Beam design load

Beam to outer leaf

Roof dead load	RDL = 1.5 x 2.7 x 0.5 / cos 19 = 2.1KN/m2
Roof live load	RLL = 0.85 x 2.7 x 0.5 / cos 19 = 1.21KN/m2
Wall dead load	WDL = 2 x 2.4 x 2 = 9.6KN/m2
Dead load	RDL + WDL = 11.7KN/m2
Live load	RLL = 1.21KN/m2

Beam to inner leaf

Wall dead load	WDL = 2.2 x 2.4 x 2 = 10.6KN/m2
Partitions	PDL = 5.1 x 0.25 = 1.28 KN/m2
Floor dead load	FDL = 4.2 x 0.6 x 0.5 = 1.26KN/m2
Floor live load	FLL = 4.2 x 1.5 x 0.5 = 3.15KN/m2
Dead load	WDL + FDL = 13.14KN/m
Live load	FLL = 3.15KN/m

Beam designed to worst case beam loading

Max span 4500mm

Inner beam

Dead Load UDL 13.14KN/m

Live Load UDL 3.15KN/m

Beam selection UB 203 x 133 x 30

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BEAM CALCULATIONS

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