General Notes:

THERMAL PERFORMANCE:
The thermal performance of the building has been designed in accordance with the Building Regulations Approved Document Part L1B for works to existing dwellings for extensions and renovating existing thermal elements. Individual elements are designed to achieve the required U-values.
Cavity Walls and Floors - Unaffected
Roofing insulation at ceiling level - max U-value 0.16W/m²K; actual U-value 0.11W/m²K.

NEW EXTERNAL CAVITY WALLS:
Outer leaf of 100mm thick 7N/mm² blockwork medium density around 1050kg/m³ with render finish; or 100mm coursed natural stone in 140mm high courses where shown; 100mm structural cavity; inner leaf 100mm thick 7N/mm² solid loadbearing blockwork with a density of approx 1050kg/m³; dot and dab plasterboard internally.
Insulate cavities with 50mm Xtratherm cavity wall insulation which achieves a U-value of 0.27W/m²°C; target U-value not to exceed 0.28W/m²K.
Stainless steel double drip triangular wall ties (Ancon RT2, 175mm long or similar approved) with insulation retaining clips at 750mm c/c horiz, 450mm c/c vert, and every 225mm at reveals within 150mm of opening. All wall ties to be built in at least half way into each leaf and must be level or sloping towards the outside.
Close cavities around all openings in external walls with proprietary insulated cavity closer/dpc unit such as Cavity Trays Type WCA or an equivalent and at head of cavity wall with inert cementitious board in bed joint under wallplate.
All mortar to comply with Approved Document A paragraph 2C22 of Building Regulations.

CAVITY WALLS BETWEEN EXISTING HOUSE AND EXTENSION:
Build cavity walls 300mm wide in two leaves of 7N/mm² blockwork with 100mm cavity and insulate cavity with 50mm Xtratherm to achieve an overall U-value of 0.27W/m²K.
Include stainless steel wall ties, close cavities and build in dpc's as before.

WALLS BELOW DPC:
Standard foundation quality blockwork, solid, with strength of at least 7.0N/mm² in walls below dpc.

FOUNDATIONS:
Foundations to comprise a reinforced concrete slab with edge thickenings linked to a retaining wall in accordance with the engineers details. All foundations and excavation works to be subject to the approval of LA Building Control Officer and Warranty provider.

INTERNAL WALLS:
Loadbearing internal walls to be constructed in 7N/mm² blockwork to the thickness shown on the plans.
Non loadbearing partitions where shown to be constructed from lightweight blockwork or 75x50mm SW framing with all necessary head and sole plates and studs and noggins with 12.5mm p/b and skim facings and mineral fibre insulation infill throughout to provide a min density of 10Kg/m³ for sound reduction.

LINTELS:
Unless specified otherwise all lintels to external cavity walls to be proprietary insulated steel lintels such as Catnic Cougar or an equivalent BBA certified and appropriate for the spans and loads supported with minimum 150mm end bearings. Provide tray DPC over all lintels with stop-ends & perpend weepholes.

DAMP PROOF COURSES:
Provide horizontal DPC to all new walls minimum 150mm above ground level.
Tray DPCs to rise min 150mm across cavity where required.
All DPC ' s to be minimum 2000 gauge.

WINDOWS AND DOORS:
Generally windows to be high performance purpose made U-pvc windows with projecting cill, double glazed, fully draft sealed, and with opening lights as indicated giving minimum 1/20th floor area natural ventilation. DG Units to be generally in accordance with BS5713 with 16mm cavity and low-E glass to ensure max o/a U-value of not more than 1.6w/m²°c.
All opening lights to have built-in trickle ventilators giving 5000mm² background ventilation to habitable rooms and 2500mm² to non-habitable rooms such as kitchens, utilities and bathrooms. Internal doors to have an undercut of 7600mm² to enable background vents to cross ventilate.

GLAZING:
Generally glazing to comply with Approved Document N of Building Regs and BS 5713:1979
All glazing to critical areas to be Kitemarked safety glass as follows:-
Windows with cill height less than 800mm from internal floor level.
In doors and adjacent side screens to all areas below 1500mm from finished floor level.

STAIRCASE:
Purpose made timber staircase to comply with Approved Documents K of Building Regulations. Structural width of flights and landings to be 850mm between newels. Lower GF to Ground Floor Level - Total rise 2947mm; 14No individual risers at 210.5mm; 250mm going; pitch 39°.
Ground Floor to First Floor Level - Total rise 2625mm; 12No risers at 218.75mm; 250mm going; pitch 40°.
All above subject to site measure.
Provide handrails for the full height of staircase 900mm high measured vertically above pitch line of flight and to all landings with no gap in balustrade greater than 99mm. Handrail sections to incorporate size and clearance from wall as shown in diagram 7 ADM, Building Regulations 2000, 2004 Edition.
Ensure min 2.0M vertical headroom over all staircases.

MECHANICAL VENTILATION:
Mechanical ventilation to be provided to all areas of sanitary accomodation.
Kitchens to incorporate manually activated extract ventilation giving min 30 litres per second extract rate if in cooker hood or 60 litres per second if independant.
Utility to have 30 litres per sec extract rate manually operated, WC & L/Sec rate and Bathrooms/ Ensuites to incorporate extractor fan giving 15 litres per second manually activated in rooms with windows and automatically operated in windowless rooms via lighting circuit with min 15min overrun following deactivation. Bathroom doors to windowless rooms to have 10mm air gap under for replacement air.

FIRE PRECAUTIONS:
SD All areas to be covered by a fire alarm system comprising smoke/ heat detectors to positions indicated on dedicated mains circuit with battery back-up, fire alarms to be positioned to ensure min 75dba in all bedrooms generally in accordance with BS5839-1.
Means of escape to be provided by a protected route via the staircase enclosure from the First Floor Level which exceeds 4.5m above lower ground floor level.
The route of escape is to be separated using fire resisting construction (blockwork walls and plasterboard lined partitions) and fire doors to habitable rooms and risk rooms.
Fire Doors:
FD30 Denotes half hour fire resisting door with intumescent seals recessed into the sides and top edge; with 25mm rebates, door closers are not required.

ABOVE GROUND DRAINAGE:
Generally above ground drainage to be in PVC wastes to all sanitary fittings of the following sizes:
SVPs and WCs branches - 100mm dia; Basins - 32mm dia or 40mm if greater than 1.7m away from SVP; Baths, showers & sinks - 40mm dia.
WC branches to have min 18mm fall per metre run and all other branch connections to have between 18 & 90mm of fall per metre run
All wastes to have 75mm deep resealing traps.
All fittings to connect to SVPs above or min 200mm below WC entry.
Soil pipes to be 100mm dia and where running to external air to terminate min 900mm above any opening light within 3m of the discharge point in flush slate ventilator otherwise they are to incorporate an internal air admittance valve.
Rodding points to be provided to any lengths of drainage which cannot be reached from any other part of the system.
All SVPs and WC branches to be in Black PVCu to minimise light transmission and discourage rodent attack.

SOUND INSULATION
All SVP's in "lightweight" boxings to be encased in SW framed boxing with removeable covers for maintenence and all voids internally to be packed with mineral fibre sound insulation giving at least 25mm cover to pipe and achieving at least 10kg/m³ density.

HEATING AND HOT WATER:
Space heating and hot water to be provided by gas fired central heating system with room-sealed balanced flue condensing system boiler of at least 90% SEDBUK located in cupboard off Room 1 as shown. Pressurised hot water cylinder to be factory insulated and located adjacent to boiler or in linen cupbd off Ground Floor landing if prefered. Final details to be agreed subject to design by mechanical subcontractor.
All primary pipework to be insulated in accordance with current regulations.
All radiators to be fitted with thermostatically controlled valves and boiler to have interlock fitted.
Space heating control system to comply with regulation G3, British Standards and Codes of Practice and give both thermostatic and timed control.
No combustable material to be installed within 40mm of any flue.
Lower Ground Floor to have underfloor heating; upper floors and existing bungalow to have radiators.

Wholesome water supply to be provided by local water supply undertaker.
All baths to be fitted with a suitable thermostatic device to limit hot water temperature to not more than 48 degrees C.
All hot water taps to be fitted on left hand side of relevant sanitary appliances.
Hot water system to be designed supplied and installed by specialist generally in accordance with BS 6700 and is to be provided with the relevant notices/ warnings described in para's 3.23 & 3.24 AD G; B.Regs 2000; 2010 edition.

Solid Fuel appliances including gas appliances:
Details of flues, protection to buildings, air supply/ventilation, notice plates and carbon monoxide detection to be condition and provided for the Building inspectors approval prior to installation.

ELECTRICAL:
Electrical system to be upgraded and designed installed and tested in accordance with latest edition "wiring" regulations (BS7671) by a contractor registered under an approved competent persons scheme or registered by an approved trade body such as the NICEIC and including the following requirements:-

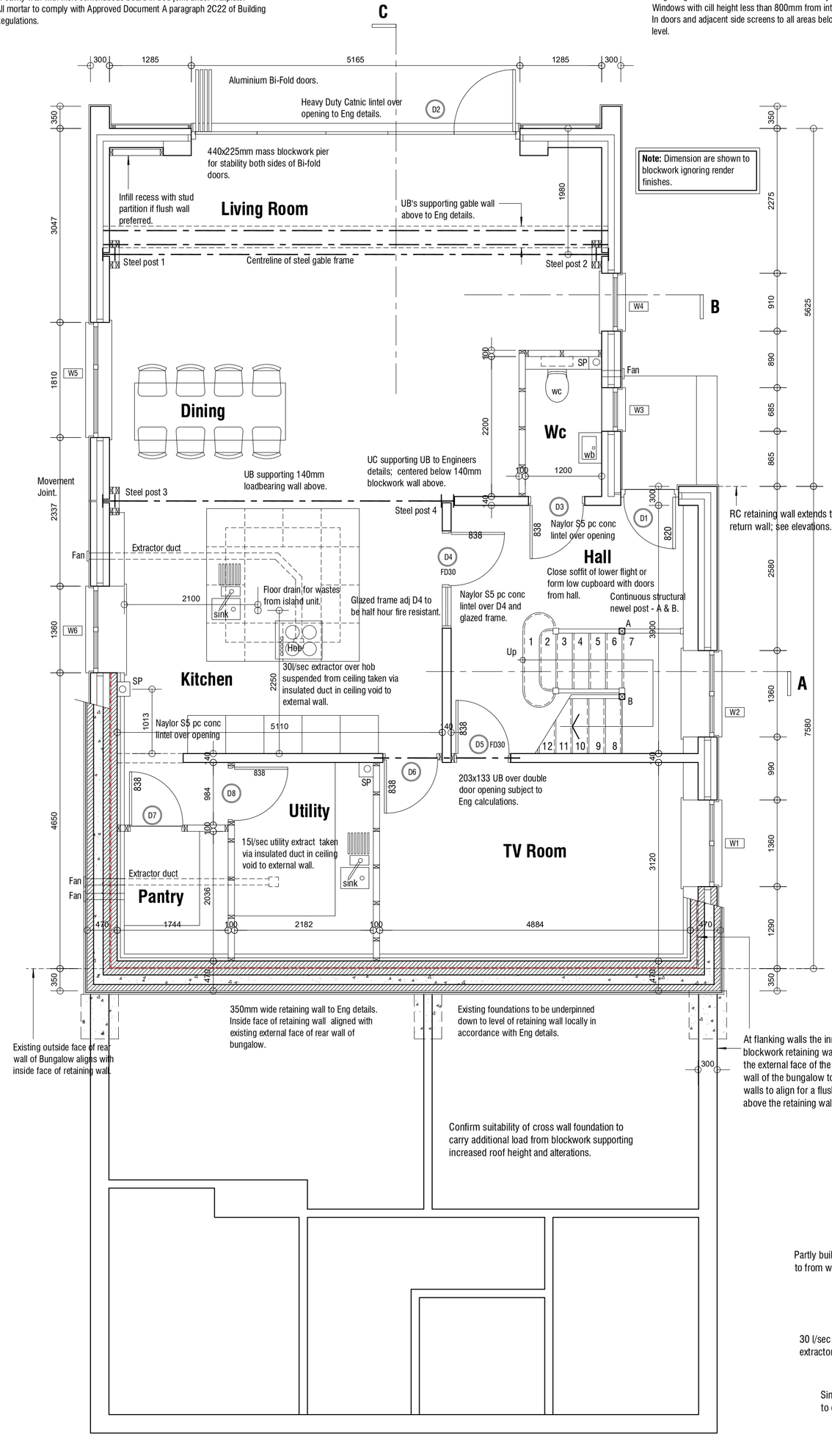
LIGHTING:
Low energy lighting to be provided throughout at the ratio of 3 per 4 fittings (75%) to ensure that the installed lighting has an average initial efficacy of not less than 50 lamp lumens per circuit watt. All lighting to be controlled locally.
Electrical Test Certificate:-
Design, installation and commissioning certificate to be provided to LABC upon completion of the electrical work.

ACCESSIBILITY:
No requirement for level approach but could be included at new lower entrance door D1 if preferred by client.
Entrance door giving at least 800mm clear opening and threshold to be not more than 15mm high.
Generally internal doors at LGF level to be 838mm wide giving at least 775mm clear opening. Doors to upper floors generally 762mm wide unless stated.
All electric sockets etc at low level to be at least 450mm above floor level and switches etc at high level to be not more than 1200mm above floor level.

SECURITY:
New and replacement doors and windows should be designed to provide reasonable provision to deter unauthorised access to any part of the dwelling as outlined in the Building Regulations Approved Doc Q.

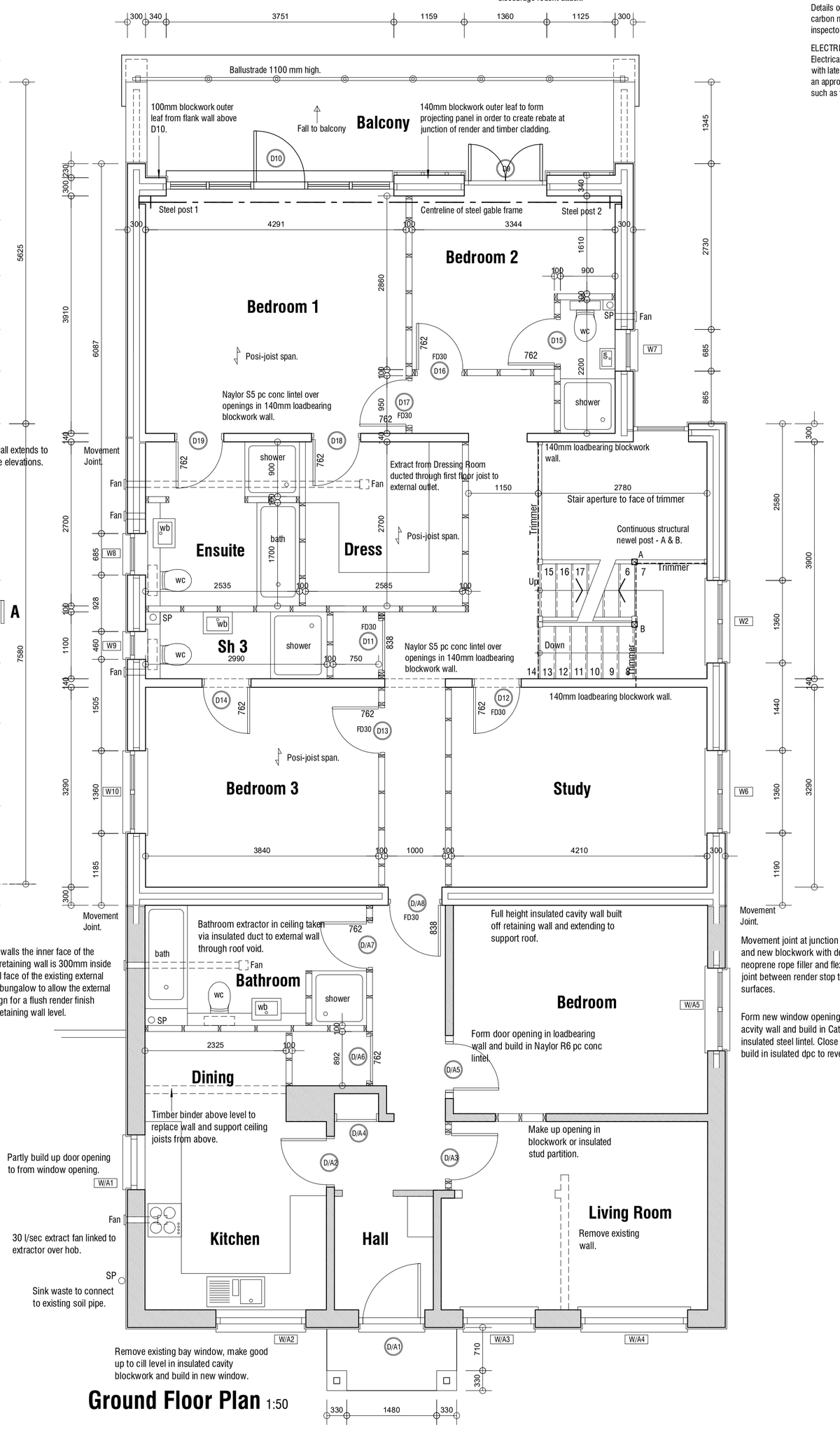
Additional security specific provisions:
- Window design should be made to meet security requirements of BS publication PAS 24:2012.
- Letter plates to have a maximum size of 260mm x 40mm and be be designed to hinder removal of keys and incorporate a flap to restrict access.
- Main doors for entering dwelling should incorporate a door viewer to see callers unless there is clear glass within the door or within a sidelight.
- Main entrance door should have a door chain or limiter.
- Door sets and windows should be mechanically fixed to the building structure in accordance with the manufacturers instructions.

Conditional Approval requested for the following:-
1. Specialist Structural calculations;
2. Roof Trusses; Posi-Joists system to upper floors;
3. Electrical Certification;
4. Final details of Heating and Hot water system and installation.



Lower Ground Floor Plan 1:50

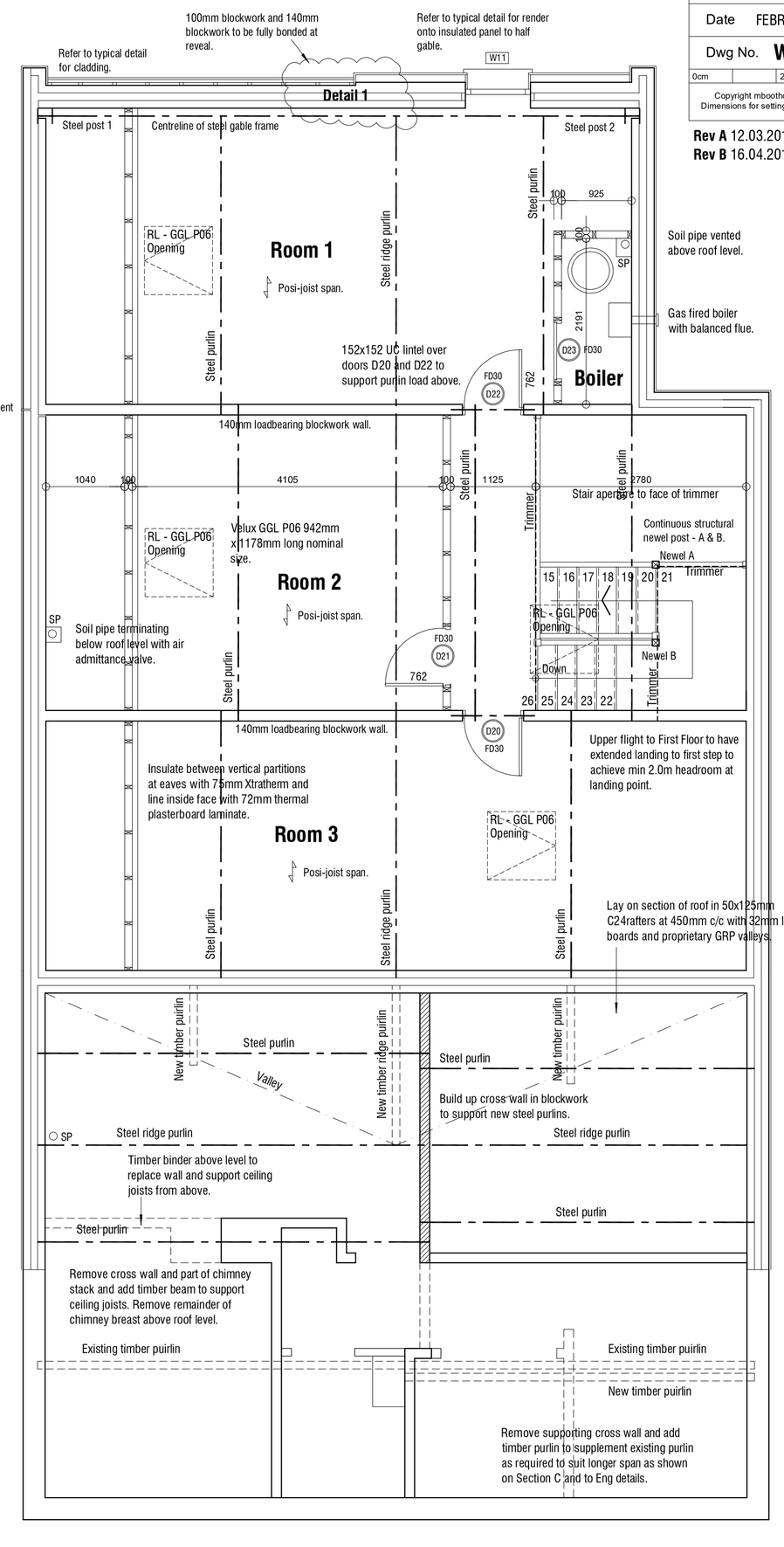
330mm brickwork piers with stone copings supporting oak posts to porch, taken down to 600x600x200mm thick conc pad foundations; stone step to main entrance.



Ground Floor Plan 1:50

Movement Joint at junction of existing wall and new blockwork with de-bonded ties, neoprene rope filler and flexible mastic joint between render stop to adjacent surfaces.

Form new window opening in existing acvity wall and build in Catnic CN90/100 insulated steel lintel. Close cavities and build in isulated dpc to reveals and cill.



Roof and First Floor Plan 1:50

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EXTENSION TO DWELLING
16 MORTIMER ROAD
CUBLEY
Nr PENISTONE
SHEFFIELD

DETAILED PROPOSALS

PLANS

Scale	1:50 @ A1	Drawn	MJB
Date	FEBRUARY 2019	Ref.	19.01
Dwg No.	**WD2**	Rev.	B

0cm 2cm 4cm 6cm

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Rev A 12.03.2019 - First Issue.
Rev B 16.04.2019 - Add W11 - Room 1 First Floor Level.