

GENERAL CONDITIONS

- These notes are for the purposes of obtaining Building Regulation Approval and are to be read in conjunction with the relevant Architectural drawings and any Structural Engineers details/ calculations and specialist drawings/ specifications where applicable.
- Should works commence prior to Building Regulations Approval, this is done so at the clients &/or builders own risk.
- The Building Control Authority to be given at least 48 working hours notice of commencement of works on site.
- All facing materials to be agreed with Local Planning Authority prior to commencement of works on site if applicable (please refer to Planning Approval Notice).
- Written dimensions on drawings are to be taken in preference to scaled and all relevant measurements and levels shall be checked on site before the commencement of work. Any discrepancies, which directly affect the works, must be reported to the Architectural Consultant before proceeding.
- The Drawings and this Schedule are subject to the copyright laws. These are private, confidential and supplied on condition that they are not used for any other purpose, copied or communicated to any other party without prior consent.
- The insulating materials specified in this schedule have 'U' values calculated to comply with the requirements of Building Regulations Approved Document Part L1B 2016 - Conservation of fuel and power in existing dwellings.
- Any changes to the materials indicated must be equivalent too or better than that specified.

Due regard shall be given, where applicable, to the requirements of the Construction (Design and Management) Regulations 1994 and The Party Wall Act 1996.

CONSTRUCTION NOTES

- GENERAL: ALL DIMENSIONS, HEIGHTS, LEVELS ETC TO BE CHECKED BY CONTRACTOR ON SITE PRIOR TO COMMENCEMENT OF WORKS AND ANY DISCREPANCIES TO BE IMMEDIATELY REPORTED TO THE DESIGNER. DRAWINGS NOT TO BE SCALED.
- ALL DRAWINGS TO BE READ IN CONJUNCTION WITH RELEVANT STRUCTURAL ENGINEERS DETAILS.
- THESE NOTES ARE FOR BUILDING REGULATION PURPOSES ONLY AND DO NOT CONSTITUTE A SPECIFICATION OF WORK TO BE CARRIED OUT.
- IF PROPOSED WORK FALLS WITHIN THE SCOPE OF THE PARTY WALL ACT 1996 IT IS THE RESPONSIBILITY OF THE OWNER TO GIVE THE APPROPRIATE NOTICE TO ADJOINING OWNER(S) AS NECESSARY.
- IT IS THE CONTRACTORS RESPONSIBILITY TO APPOINT A SUITABLY QUALIFIED PERSON TO ACT AS PLANNING SUPERVISOR AND COMPLY WITH ALL HEALTH AND SAFETY REQUIREMENTS.

Minimum U-Values

Floors	= 0.22 W/m ² K	Walls	= 0.28 W/m ² K
Doors	= 1.8 W/m ² K	Windows	= 1.6 W/m ² K
Pitched Roof (ceiling level)	= 0.16 W/m ² K		
Pitched Roof (rafter level)	= 0.18 W/m ² K		
Flat Roof	= 0.18 W/m ² K		

Foundations

- Existing foundations to be check for suitability for the proposed works prior to start of works.
- A trial hole shall be dug prior to excavation to expose the existing foundations,such that the building control officer is able to inspect suitability to take additional loadings.
- Remedial works to existing foundations, where required, to be completed in accordance with the Structural Engineers design and details and to the satisfaction of the Building Control Officer.
- The building area needs to be excavated to 600mm below ground level; weed killer shall then be applied.
- New foundation type and depth need to be appropriate to site conditions, such that they can be designed in accordance with Building Regulations Approved Document Part A 2013 Schedule 1 Pt. A and BS 8004:1986 Code of Practice for Foundations. All need to be to the approval of the building control inspector.
- Notwithstanding the representations on the drawings, the foundation depths need to comply with the building regulations act 1991.
- Subject to Land quality and building near trees, the depth of foundations maybe increased to satisfy the building control inspector.
- The foundations must be extended to at least 150mm below invert level of any adjacent drains.
- All foundations need to be filled to no less than 600mm below ground level with 20mm AGG S20 Newton C16/20 D-2 OPC 20mm aggregated 50 slump; vibrate as directed by manufacturer.
- All constructed in accordance with Building Regulations Approved Document Part A 2013 and BS 8004:1986 Code of Practice for Foundations.
- The foundation wall needs to be built using class B engineering bricks or dense 7N concrete block work construction with any cavities filled with weak mix concrete up to 150mm below DPC; leaving apertures of 15,000mm² at approx. 1.2m centres in the inner foundation run.
- The concrete cavity fill needs to be 225mm min. below the horizontal dpc.
- Where new foundations are to be butting up to existing foundation, these shall connect with T12 dowel bars (no less than 400mm long) at the top and bottom

Floor Construction - General

- FLOORS TO BE CONSTRUCTED AND LAID IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND DETAILS AND GUIDELINES AS SET OUT IN PART E OF BUILDING REGULATIONS. WORKMANSHIP TO BE OF HIGHEST STANDARD AND SPECIAL ATTENTION TO BE GIVEN AT THE PERIMETER AND WHERE THE FLOOR IS PENETRATED.

Ground Floor Construction

P/A Calculation (Ground Floor - Extension)

Perimeter (P) = 11.515m Area (A) = 35.238m²

$$P/A = 0.3268$$

P/A Calculation (Ground Floor - Garage)

Perimeter (P) = 20.265m Area (A) = 42.6497m²

$$P/A = 0.475$$

Ground Bearing Slab

Ground Floor - Extension

- To achieve u-value of 0.22W/m²K or better.
- Design u-value of 0.22W/m²K at P/A of 0.3268
- 65mm sand cement screed reinforced with light galvanised steel mesh with 20mm Celotex TB4000 insulation board to perimeter (or 22mm t & g chipboard to BS 5669 type C4).

- Min. 50mm Celotex GA4000 insulation or similar approved, on 1200 gauge polythene dpm with all joints lapped and taped and sealed around pipes, lapped up, continuously bonded to wall dpc.
- Min. 150mm thick concrete ground bearing slab (concrete mix should be in accordance with BS 8110, BS 5328, mix type S12 or GEN1), with 1 layer A252 steel mesh positioned mid span on sand blinding on min. 150 well consolidated sulphate free clean hardcore. (no reclaimed demolished material is permitted).
- 500 gauge polythene separating layer
- Min. 60mm Celotex GA4000 insulation or similar approved, on 1200 gauge polythene dpm with all joints lapped and taped and sealed around pipes, lapped up, continuously bonded to wall dpc.
- Sand blinding on min. 150 well consolidated sulphate free clean hardcore. (no reclaimed demolished material is permitted).

Alternative - Suspended Beam & Block Floor

Ground Floor - Extension

- To achieve u-value of 0.22W/m²K or better.
- Design u-value of 0.22W/m²K at P/A of 0.3268
- 65mm sand cement screed reinforced with light galvanised steel mesh with 20mm Celotex TB4000 insulation board to perimeter (or 22mm t & g chipboard to BS 5669 type C4).
- Min. 60mm Celotex GA4000 insulation or similar approved, on 1200 gauge polythene dpm with all joints lapped and taped and sealed around pipes, lapped up, continuously bonded to wall dpc.
- Min. 150mm thick suspended beam and block pre-fabricated floor to specialist beam manufacturer's design and specification with additional dpc to underside of floor beams.
- Min. 70mm Celotex GA4000 insulation or similar approved, on 1200 gauge polythene dpm with all joints lapped and taped and sealed around perimeter of dwelling.

Ground Floor - Garage

- To achieve u-value of 0.22W/m²K or better.
- Design u-value of 0.21W/m²K at P/A of 0.475
- 65mm C20 concrete screed reinforced with A142 galvanised steel mesh with 20mm Celotex TB4000 insulation board to perimeter.
- Min. 70mm Celotex GA4000 insulation or similar approved, on 1200 gauge polythene dpm with all joints lapped and taped and sealed around pipes, lapped up, continuously bonded to wall dpc.
- Min. 150mm thick suspended beam and block pre-fabricated floor to specialist beam manufacturer's design and specification with additional dpc to underside of floor beams.
- Min. 150mm under floor void with all deleterious or organic material removed, to be ventilated in accordance with manufacturer's instructions by 75x225mm air bricks with telescopic cavity vents with dpc tray over at max. 1.8m spacings around perimeter of dwelling.

First Floor Construction - Projection to Bedroom 1

- To achieve u-value of 0.22W/m²K or better.
- Design u-value of 0.22W/m²K
- 22mm flooring grade 1 & g type 11/111 moisture resistant chipboard to BS5669 pt 2 1989
- 150 x 50mm C24 timber floor joists at maximum 450mm centres on joist shoes. All in accordance with structural Engineers design and details.
- Min. 110mm Celotex XR4000 insulation or similar approved between joists.
- 25mm Service void formed with 25x38mm timber batten fixed perpendicular to floor joists.
- Soffit finish to be 12mm cement particle board or similar approved.

First Floor Construction (Internal)

- 22mm flooring grade 1 & g type C4 chipboard to BS5669 pt 2 1989 (type 11/111 moisture resistant to wet areas)
- 150 x 50mm C24 timber floor joists at maximum 400mm centres notched into web of steelwork with timber noggins between and on joist shoes where supported by masonry or timber members. All in accordance with structural Engineers design and details.
- Solid strutting and double solid strutting where span is up to and over 4.5m. Double joists under partitions and batts. 30 x 5mm galvanised m.s. wall straps to be fixed to three joists at maximum 2.0m centres with downstand built into cavity.
- 100mm insulation quilt between joists.
- 25mm (2x12.5mm) skimmed finish plasterboard (min. 10kg/m2) ceilings.

External Walls

General

- The walls need to be constructed in accordance with BS 5628 Pts 1: 1992, 2 and 3: 1985.
- The cavities in a new wall to be made continuous with the existing where possible to ensure a continuous weather break. If a continuous cavity cannot be achieved, where new walls abuts the existing walls provide a movement joint with vertical DPC. All tied into existing construction with suitable proprietary stainless steel profiles.
- All cavity walls to be tied together using type A stainless steel cavity ties to BS1243 at 450mm centres vertically and 600mm centres horizontally in accordance with BS5628. Additional ties to be provided at 225mm vertical centres within 225mm of all openings in external walls.
- Close cavities at reveals with insulated cavity closer (Thermabate or similar approved).
- Fill cavity with fine concrete up to 150mm below horizontal dpc. Slope out with weeps.
- Walls below dpc in two skins of 100mm stock brickwork.
- All mortar for external walls to be at a mix of not less than 1:1:6 cement lime sand to BS5265: 1976.

Render/Microcement Finishes

- Render System: During application, ensure reinforcement non-degradable fibre mesh embedded into the Priming / levelling coat is applied.

- Render to be Stolit acrylic render system or similar equivalent to be agreed with the designer. Render texture and colour to be in accordance with planning permission.
- Apply Priming / leveling coat, Intermediate / Primer coating and Top coat / Render finish where required. Beading to be stainless steel.
- Microcement System: Microcement Technologies microcement system or similar equivalent to be agreed, installation all in accordance with manufacturers details and specification.

Facing Render/Microcement Finish - Existing External Walls

- Render/microcement system on suitably prepared existing facing brickwork external wall all in accordance with manufacturers details and specification.
- Facing Render/Microcement Finish - Extension
- To achieve a minimum u-value of 0.28W/m²K
- Design u-value of 0.24W/m²K
- Masonry cavity wall comprising render/microcement system on 100mm thick aciretre blocks with a minimum compressive strength of 3.6N/m² and a maximum thermal conductivity not exceeding 0.15 W/mK (Celcon Standard or similar) up to plate level.
- Cavity to be 275mm ventilated cavity with full fill mineral wool insulation with a max thermal conductivity not exceeding 0.032W/mk (Isover CWS 32 or similar).
- Finish to be 12.5mm plasterboard on dabs with taped joints and skim coat finish (No finish required within garage unless requested by client), all installed in accordance with manufacturers details.

Micro-cement Finish - Timber Frame (First Floor Projection)

- To achieve a minimum U value of 0.28W/m²K
- Design u-value of 0.26W/m²K
- Buildup Micro-cement finish on min. 8mm thick cement particle board (Euroform Rendaboard or similar approved) on min. 25x38mm vertical timber battens on breather membrane.
- 12mm Celotex TB4000 rigid insulation board with joints sealed on 9mm sheathing board (BS5268 Part 2 OSB3 / EN636 Class 3 plywood) on 100mm timber frame wall.
- 100mm Celotex GA4000 rigid insulation board between the timber frame uprights.
- 1000 Gauge Polythene VCL.
- 25mm service void formed with min 25x38mm vertical timber battens fixed into timber frame studs faced throughout with 12.5mm plasterboard with skim finish. Taped and jointed complete with beads and stops.
- All membranes, insulation and vapour control layers to be fitted in accordance with manufacturers details and specifications.

External Wall (Large Pebbles) - Cavity Wall

- Existing masonry outer skin of cavity wall to be removed.
- Existing wall ties to be checked for condition and suitability for pebble/stone wall and replaced where required.
- Cavity to be cleared of any debris and kept clear during construction of new large pebble/stone outer skin.
- Cavity width to be checked and new cavity wall insulation installed to suit cavity width.
- Full Fill
- Mineral wool insulation with a max thermal conductivity not exceeding 0.032W/mk (Isover CWS 32 or similar).
- Partial Fill
- Low emissivity foil faced rigid insulation board with a max thermal conductivity not exceeding 0.022W/mk to suit min. 25mm clear cavity width (Celotex TB4000/CW4000 rigid insulation board or similar).
- SureCav Limited SureCav25a 25mm cavity board to be installed in accordance with manufacturers details and specification.
- Pebble/Stone outer skin constructed to specialists details with suitable mortar.
- Helical type ties to be used for additional strengthening of pebble/stone outer skin, installed in accordance with manufacturers and SureCav Limited details.
- All in accordance with specialists details and specification.

New Walls To Existing Walls

- Where new walls abut existing, they are to be bonded to the existing with stainless steel Furix system (or equivalent) with movement joint and vertical DPC. The vertical joint is to be sealed with polysulphide sealant.
- All the existing walls shall be inspected and approved by Building Control and the Structural Engineer before any additional loads are placed onto that wall.

Internal Insulated Wall (Garage)

- To achieve a minimum u-value of 0.28W/m²K
- Design u-value of 0.25W/m²K
- Masonry cavity wall comprising 100mm thick aciretre blocks with a minimum compressive strength of 3.6N/m² and a maximum thermal conductivity not exceeding 0.15 W/mK (Celcon Standard or similar) up to plate level.
- Cavity to be 275mm ventilated cavity with full fill mineral wool insulation with a max thermal conductivity not exceeding 0.032W/mk (Isover CWS 32 or similar).
- Finish to be 12.5mm plasterboard on dabs with taped joints and skim coat finish (No finish required to garage side unless requested by client), all installed in accordance with manufacturers details.

Internal Load-bearing Wall

- Masonry wall comprising 100mm thick aciretre blocks with a minimum compressive strength of 3.6N/m² (Celcon Standard or similar) up to plate level.
- Finish to both sides to be 12.5mm plasterboard on dabs with taped joints and skim coat finish, all installed in accordance with manufacturers details.

Dwarf Brickwork Pier & Steel Balcony Support Post

- Painted galvanised square steel section column to Structural Engineers design and details.
- Concealed post base built into brickwork dwarf pier.
- Dwarf piers to have plinth profile top course (lfbstock Plinth Bricks External Return - PL.7.1 or similar).

External Openings

- Cavity closers (to be fitted in all openings) to be Thermabate rigid box section uPVC extruded cavity closer with bonded CFC/HCFC free insulating core (0.025W/mK) or similar approved.

- Cavity tray to above all lintels in external walls with 150mm upstands, stop ends and suitable cavity binder/wall plate at max 900mm centres - all in accordance with manufacturers details.

Beams/Lintels

- Beams/Lintels over existing openings to be reviewed and where required, either replaced, or new lintel located above the existing lintel, with a suitably sized lintel to accommodate the increased loadings - all in accordance with the Structural Engineers designs and details.
- New lintels to openings in external walls, where required, to be IG L11/S or L11/HD lintels as indicated (or similar approved), appropriate to cavity size, span and load - all in accordance with the Structural Engineers designs and details. Minimum end bearing to be 150mm. For enhanced thermal properties the above lintels can be substituted with IG Hi-therm HT/S or HT/HD
- New lintels to openings in internal masonry walls, where required, to be precast concrete lintels, unless otherwise stated, appropriate to span and load - all in accordance with the Structural Engineers designs and details. Minimum end bearing to be 150mm.

Internal Non-Loadbearing Partitions

- 75/100mm x 50mm SW treated timber studs at 400mm cts with 50 x75/100mm head and sole plates and solid intermediate horizontal noggins at 1/3 height or 450mm. Min 10 kg/m3 density acoustic soundproof quilt tightly packed (eg. Rockwool or Isowool mineral fibre sound insulation) to be provided in all voids to the full depth of the stud.
- Partitions built off doubled up joists where partitions run parallel or provide noggins where at right angles, or built off DPC on thickened concrete slab if solid ground floor. Walls faced throughout with 12.5mm plasterboard with skim finish. Taped and jointed complete with beads and stops.
- Wet areas of Bathrooms which shall likely be covered with tiles self be finished with Knauf Aquo panels installed to manufacturer's recommendations.
- Kitchen/Utility/Bathroom/Ensuite partitions to have 8mm plywood sheathing to facilitate fixing of wall units/boilers/WCs/hand wash basins etc. and enhanced accessibility features (e.g. handrails)

Doors & Windows

- Building Regulations Approved Document Part L1B compliant timber/UPVC windows & Doors. To match existing profile and materials; unless otherwise specified.
- All windows to be double glazed. Provide mastifc seal around all door and window frames. Opening vents of minimum 1/20th of floor area of enclosed room.
- Doors to achieve a u-value of 1.8W/m²K or better.
- Windows to achieve a u-value of 1.6W/m²K or better.
- Roof lights to be Sunspace Skyview flat skylight with insulated upstand or similar approved.
- Glazing is only to be obtained from a manufacturer who is providing 10 year guarantee.
- All glazing is to comply with BS 6206 and BS 952. Glazing between finished floor level and 800mm or within 300mm of either side of door openings and up to 1.5m above finished floor level to be toughened safety glass to BS-EN12150.
- All glazing to comply with Building Regulations Approved Document Part K 2013.
- All windows and doors shall include anti-draught strips.
- Background Ventilation - Refer to Ventilation Notes.
- Means of Escape - Refer to Fire Safety Notes
- Security - Refer to Security Notes

Pitched Roof Construction

Pitched Roof (Vaulted Ceiling with Exposed Rafter & Ridge Beam)

- Warm Roof construction.
- To achieve U-Value of 0.18 W/m²K or better.
- Design u-value = 0.17W/m²K
- Slate roof tiles on 25x38 tiling batten on 25x38 counter batten on breather membrane.
- 47x47mm timber counter-batten - 22mm clear cavity & 25mm Celotex TB4000 rigid insulation board between counter-batten.
- 100mm Celotex GA4000 rigid insulation board (Where vaulted ceiling within main cold roof, rigid insulation board may be substituted with min. 300mm mineral wool insulation).
- 1000 gauge polythene with all joints sealed to form VCL and air leakage barrier.
- 18mm timber deck board - BS5268 Part 2 Sterling OSB3 T&G board (Roofdeck or similar approved) or EN636 Class 3 plywood deck on exposed rafter structure.
- 100x250mm Glulam Ridge Beam.
- Rafter clear span ~2.4m.
- Primary Exposed Rafter with horizontal tie member (vertical central post subject to structural requirement/client choice) - 100x225mm Glulam Beam @ ~2045mm c/c spacing.
- Secondary Rafter - 38x125mm C24 Timber @ ~510mm c/c spacing.
- 25mm services void.
- Skilling ceiling finish between exposed rafters to be 12.5mm plasterboard with taped joints and skim coat finish.

Pitched Roof (Flat Ceiling)

- To achieve U-Value of 0.16 W/m²K or better.
- Design u-value = 0.15W/m²K
- Slate roof tiles on 25x38 tiling batten on breather membrane on existing or new roof structure.
- Min. 25mm continuous ventilation to be maintained to perimeter where insulation meets roof pitch.
- Min. 300mm mineral wool insulation, part laid between ceiling joist to match depth with remainder laid perpendicular to joist.
- Finish to be 12.5mm plasterboard with taped joints and skim coat finish.

Extensive Green Roof Construction (Warm Roof)

Green Roof - General

- Zinco Green Roof 'Rockery Type Plants' System or similar approved, installed in accordance with manufacturers specification, design and details.
- Build up depth ~110mm, saturated weight ~120kg/m².
- Green Roof - Concrete Plank or Beam and Block
- To achieve U-Value of 0.18 W/m²K or better.
- Design u-value = 0.17W/m²K
- Green roof system on suitable adhered single ply membrane on 120mm Kingspan ThermaRoof TR27 LPC/FM

- Bitumen vapour check on min. 50mm sand cement screed laid to min. 1:80 fall as indicated on drawings.
- 150mm Precast concrete plank or min. 150mm thick suspended beam and block pre-fabricated floor to specialist beam manufacturer's design and specification.

Green Roof - Timber

- To achieve U-Value of 0.18 W/m²K or better.
- Design u-value = 0.17W/m²K
- Green roof system on suitable adhered single ply membrane on 120mm Kingspan ThermaRoof TR27 LPC/FM
- 22mm EN636 Class 3 Plywood on timber firing to achieve 1:80 slope.
- 225 x 50mm C24 timber flat roof joists at maximum 400mm centres notched into web of steelwork with timber noggins between and skew nailed into timber frame panel binder/wall plate with timber noggins between.
- Ceiling finish to be 12.5mm plasterboard with taped joints and skim coat finish.
- All membranes, insulation and vapour control layers to be fitted in accordance with manufacturers details and specifications.

Roof Construction - Flat Roof (First Floor)

- Cold roof construction to be built up felt flat roof with min 1:80 fall.
- To achieve U-Value of 0.18 W/m²K or better.
- Design u-value = 0.17W/m²K
- 3 layers high performance roofing felt laid in accordance with BS EN 13707 on 22mm EN636 Class 3 Plywood on timber firing to achieve 1:80 slope.
- 195 x 50mm C24 timber flat roof joists at maximum 600mm centres notched into web of steelwork with timber noggins between and skew nailed into wall plate with timber noggins between.
- Min. 50mm continuous ventilated void.
- 150mm Celotex XR4000 between joists
- 12mm Celotex TB4000 under joists with joints taped as Vapour Control Layer
- Ceiling finish to be 12.5mm plasterboard with taped joints and skim coat finish.
- All membranes, insulation and vapour control layers to be fitted in accordance with manufacturers details and specifications.

Roof / External Wall Abutments

- Code 4 lead soakers and flashings all in accordance with BS EN 12588: 2006 and to Lead Sheet Association details.
- Cavity tray above all horizontal roof abutments with external walls with min. 150mm upstands, stop ends and suitable cavity weep holes - all in accordance with manufacturers details.
- Stepped cavity tray above all raking roof abutments with external walls with min. 150mm upstands, stop ends and suitable cavity weep holes - all in accordance with manufacturers details.

Steps / Staircases

- All steps, stairs, guarding and handrails to comply with Building Regulations Approved Document Part K 2013.
- Steps and stairs to have going, rise and pitch as follows:-
 - Maximum pitch of 42°
 - Going to be between min. 220mm and max. 300mm.
 - Rise to be between min. 150mm and max. 220mm.

Fire Protection - 1/2 hour

- Clad all new beams with 2no layers 12.5mm plasterboard, staggered joints and 5mm skim coat.
- Where exposed beams are required an intumescent coating to be applied to the whole beam prior to installation with any damage to the coating repaired once installed.
- Fire stop to be inserted under roof tiles at party wall junction.
- Party wall cavity within loft space to be filled with fire resistant blown fibre and firestop inserted at all perimeter junctions.

Mechanical Services

- The contractor will take responsibility for the design and detailed specification of all of the hot and cold water services, central heating and mechanical systems. All systems must comply with the standards described in The Domestic Heating Compliance Guide, 2010.

- The 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 Authorities by-laws, Gas safety requirements and IEE regulations.

Ventilation

Ventilation - Background

- Controllable and secure trickle vents to be incorporated into window heads, to all windows, external doors and rooflights to provide min. 5,000mm² to habitable rooms and min. 2,500mm² to non habitable rooms in accordance with Building Regulation Approved Document F 2010 (with 2013 amendments), Provide BBA Certificate on completion.
- Subject to requirement permanently open ventilation for solid fuel appliances to be provided in accordance with Table 1 of Building Regulation Approved Document J 2010v2 (550mm² per KW of appliance rated output at design air permeability of <5.0m³/(h.m²)).
- Ventaxia or similar mechanical fans to bathrooms, en-suities, W.C, kitchen and utility to achieve relevant minimum air extraction rates - see below.
- Fans to be wired through isolation switch at 1.2m above floor level.
- Fan to utility to be operated from humidity sensor (minimum 3 air changes per hour).
- Kitchens, bathrooms, en-suities and WCs without windows to have 10mm gap below door.
- Fan outlets through wall to external air with cowl or ducted via upvc or sheet steel pipes clad in 2no layers 12.5mm plasterboard and taken to roof/ridge vent outlets.

Minimum air extraction rates

Kitchen	30/s (adjacent to hob)	60/s (elsewhere)
Utility Room	30/s	Bathroom 15/s
Sanitary accommodation		15/s

Security

- All windows and doorsets to be fully compliant with Building Regulations Approved Document Q (2015 edition), be manufactured and installed to meet or exceed the British Standard publication PAS 24:2012 (standard or relevant alternative standards noted within the Approved Document.

Electrical

- Renew existing systems to Client's requirements. All wiring to current IEE Regulations and to Electricity Board Inspector's approval. Provide Test Certificate on completion.
- All new electrical work is to be designed, installed, inspected and tested in accordance with BS 7671:2008+A3:2015. The works are to be undertaken by an installer registered under a suitable self certification scheme or alternatively supply an installation and commissioning certificate completed by a person competent in respect of the inspection and testing of such installations as required by BS 7671:2008+A3:2015, with a certificate of compliance produced by that person to Building Control on completion of the works.
- Power, light and other fittings positioned as per layout drawing or to client's specific requirements all in accordance with current IEE regulations. All sockets and switches to be positioned between 450mm and 1200 mm of finished floor level.
- Energy efficient lighting (luminous efficiency greater than 40 lumens per circuit watt) is to be provided in accordance with latest Building Regulation requirement.
- Mains operated linked smoke alarm detection system to BS 5839-6 :2004 to at least a Grade D category LD3 standard.

Fire Safety

Means of Escape

- Egress windows to first floor habitable rooms to be min. 450mm high and 450mm wide with an unobstructed openable area of min. 0.33m². bottom of openable area max. 1.100mm from finished floor level.
- Where egress windows are not feasible due to constraints or where upper floor height of more than 4.5m provision of a protected stair is required with a minimum of 30 minutes fire resistant construction with fire doors (in accordance with Appendix B of Building Regulations Approved Document Part B1 2013) to all habitable rooms and cupboards on protected route.

Alarms & Detection

- Smoke and heat alarms should be mains-operated and have a standby power supply, such as battery(either rechargeable or non-rechargeable) or capacitor. More information on power supplies is given in clause 15 of BS 5839-6:2004.
- Smoke alarms to conform to BS EN 14604:2005. Smoke alarm devices
- Heat alarms conform to BS EN 5446-2:2003, Fire detection and fire alarm devices for dwelling houses. Part 2 Specification for heat alarms.
- Smoke alarms should be sited so that there is a smoke alarm in the circulation space on all levels/storesys and within 7.5m of the door to every habitable room. If ceiling mounted they should be 300mm from 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.

Heating General

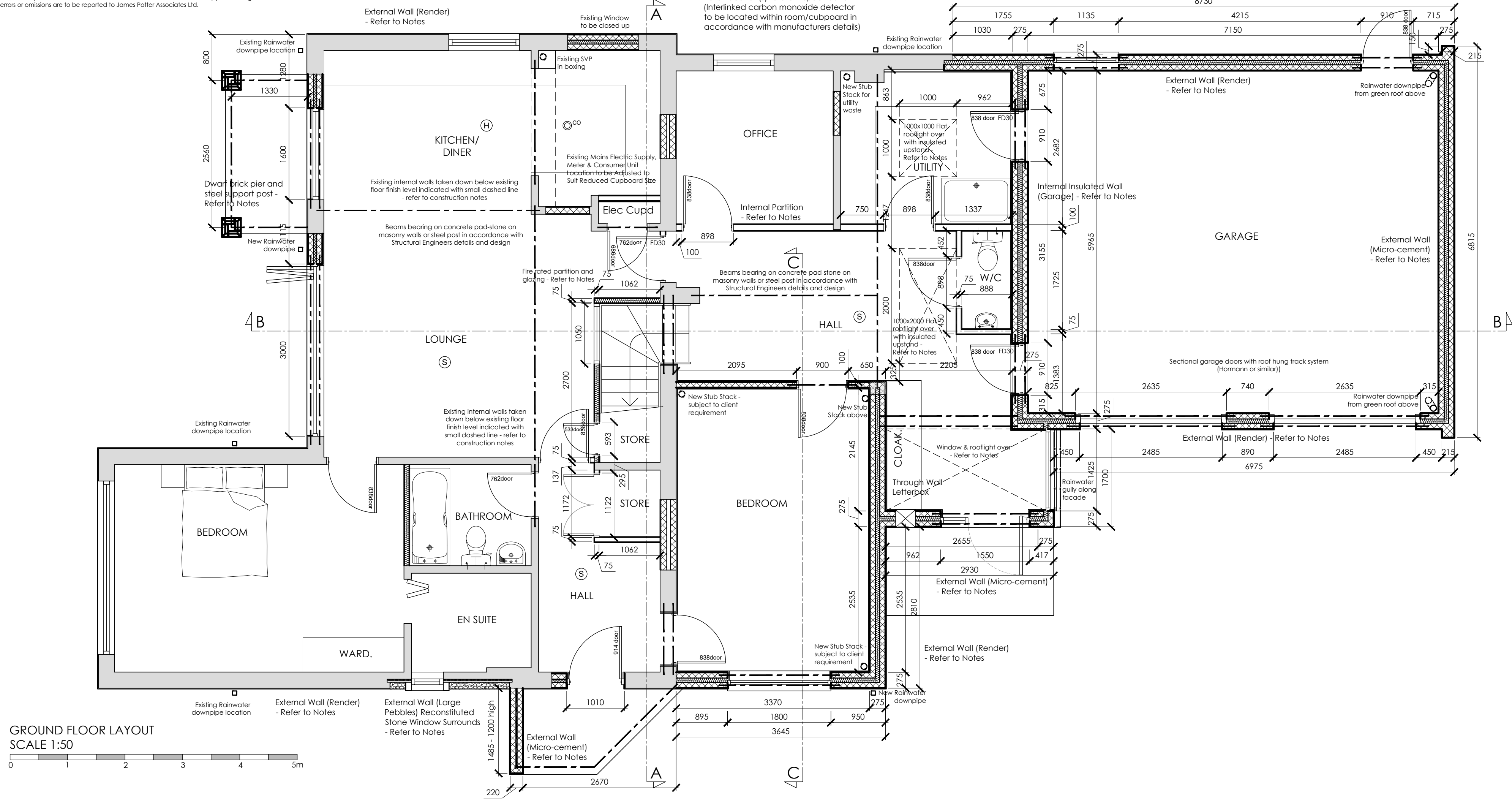
Gas Heating - Existing System

- Where appropriate, All new space and water heating to be connected into existing system.
- All heating and hot water services to be extended from existing and provide new TVRs to radiators.
- If required new gas boiler to be wall mounted condensing vertical balanced flow pressurised boiler with a min SEDBUK rating of 90%. No combustible materials are to be within 50mm of the flue.
- Heating system to be designed, installed, tested and fully certified by a GAS SAFE registered specialist and a certificate issued that the installation complies with the requirements of the Building Regulations Approved Document Part L1B 2016.
- Subject to client choice electric underfloor heating system where required with suitable controls, all designed and installed in accordance with manufacturers design, details and specifications.
- All work to be in accordance with Local Water Authorities bye laws, the Gas Safety (Installation and Use) Regulations 1998 and IEE Regulations.

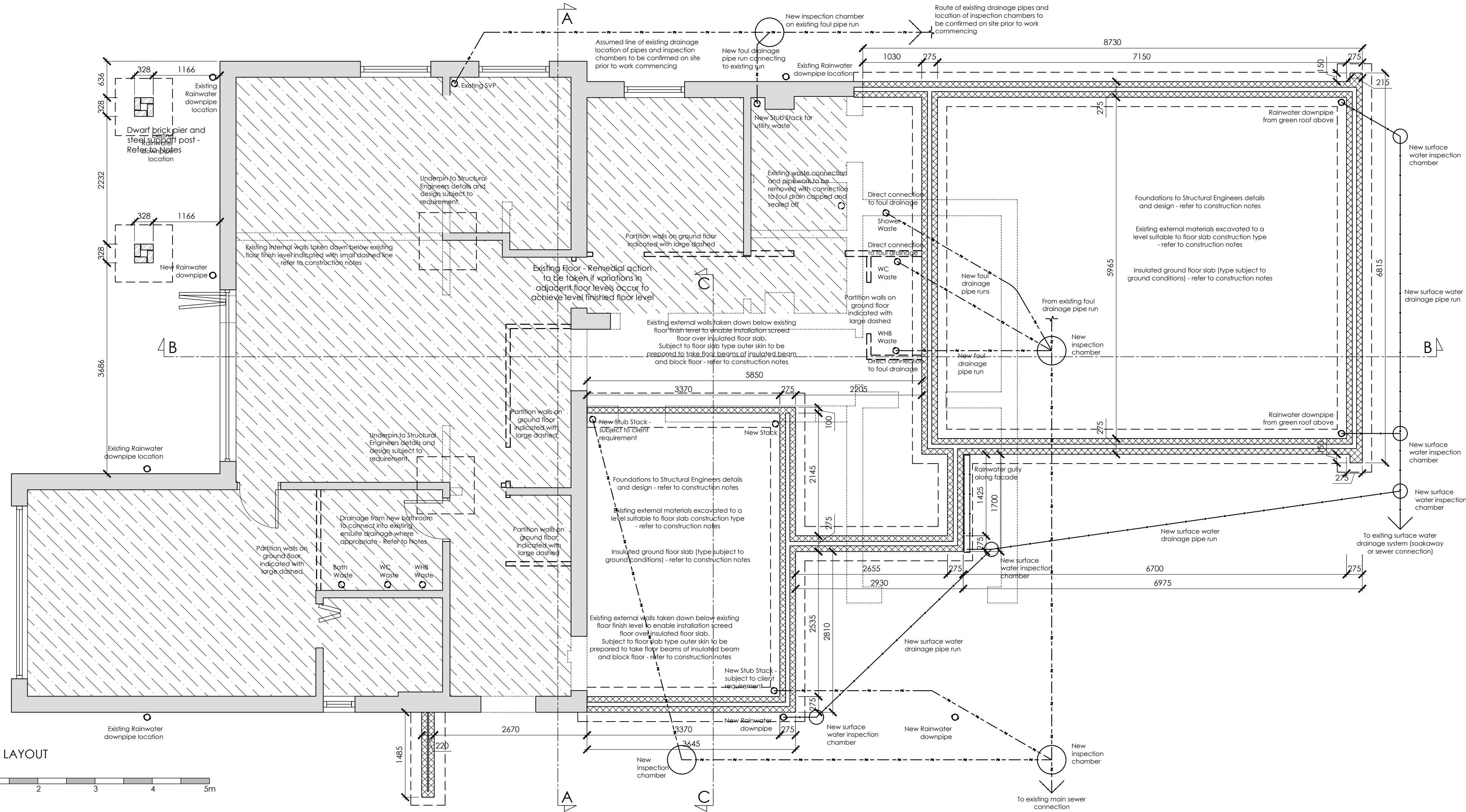
Secondary Heating - Wood/Multi-Fuel Stove (Living Room)

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This drawing may be scaled with reference to the scale bar for planning application purposes only. Do not scale for any other purpose, use only annotated dimensions. All dimensions are to be checked by parties using the drawing, and any errors or omissions are to be reported to James Potter Associates Ltd.



GROUND FLOOR LAYOUT
SCALE 1:50

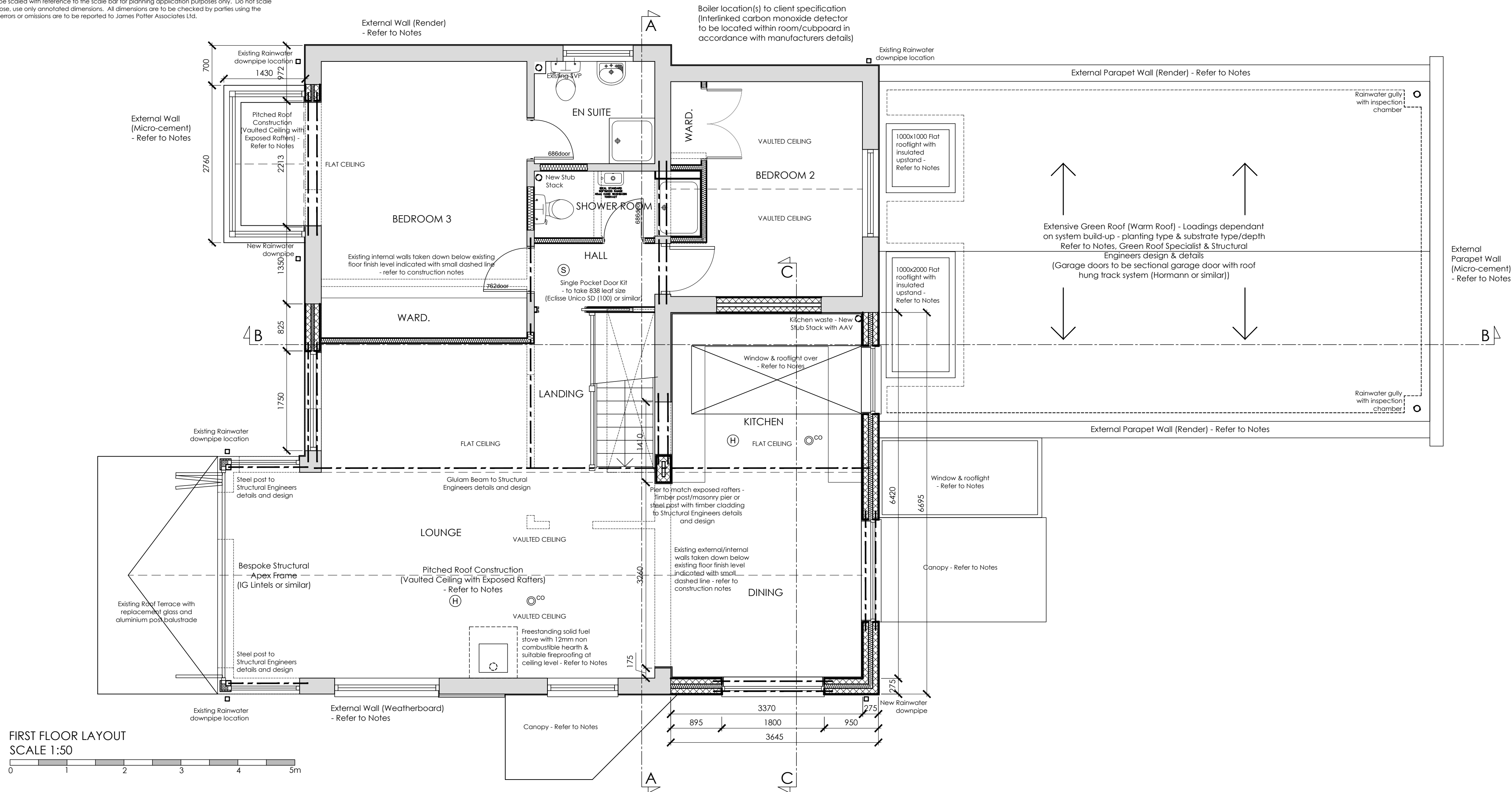


FOUNDATION LAYOUT
SCALE 1:50

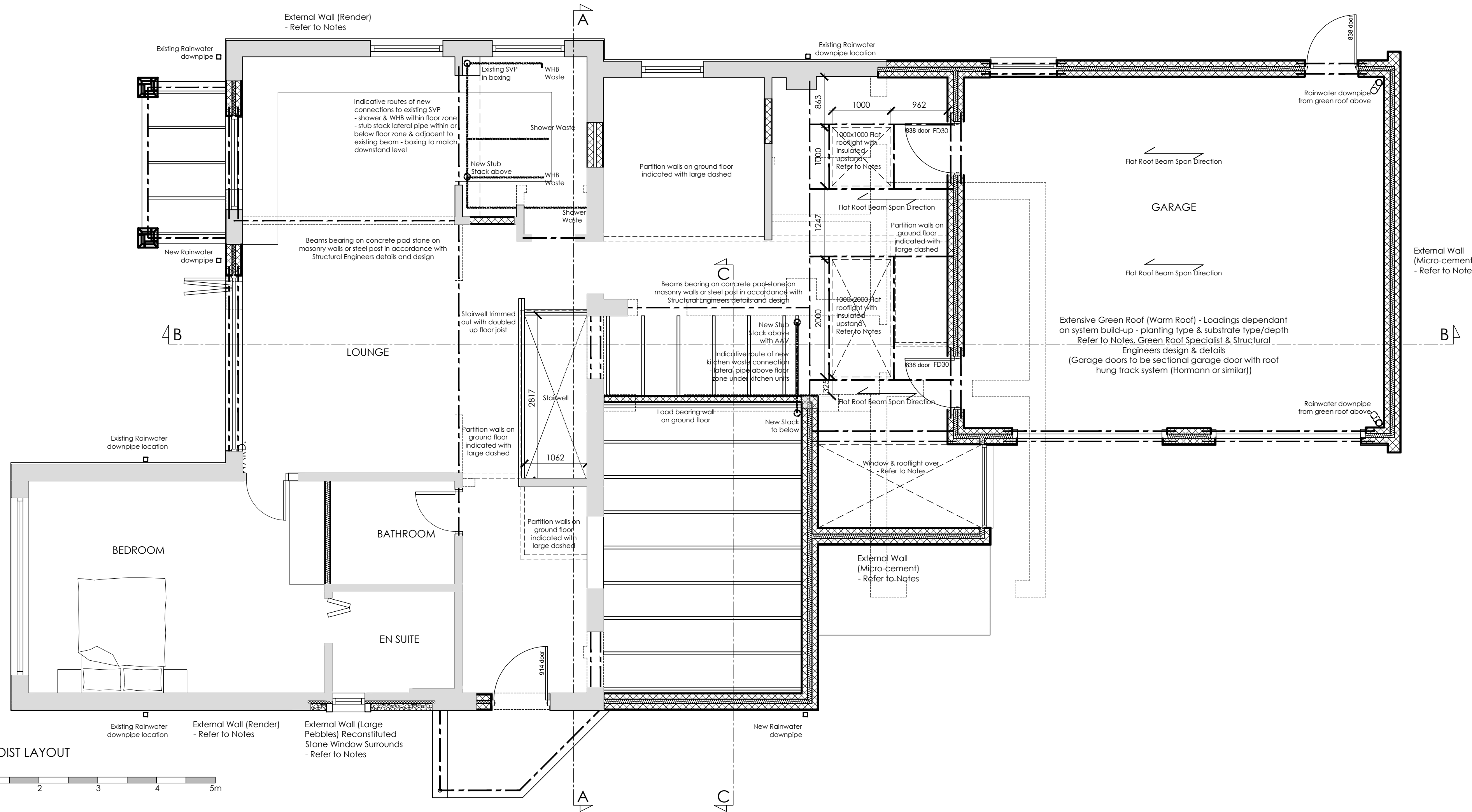


Rev.	Date	Note	Author	Checked
A	04/07/17	Plans updated to suit Structural Engineers information	RR	JP
B	11/07/17	Plans updated to incorporate client changes - see revision clouds - Back door to garage moved and window put in its original place. - Glazed panel between stairwell and ground floor lounge. - Door between hall and ground floor lounge moved and nib within lounge removed. - Vertical timber cladding zone adjusted. - Cupboard to office removed.	RR	JP
C	30/10/17	Additional notation added, Mid-span support column within utility wall and associated foundation removed in line with SE design. Plans updated to incorporate client changes - Front door changed to wide pivot type door with side light. - Size of door to ground floor bedroom updated - Reduced size services cupboard added at location of existing services cupboard within kitchen. - Rear side window within ground floor kitchen closed up to suit preferred kitchen layout. - Weatherboard replaced by large pebble external finish.	RR	JP

Project	2 STOREY EXTENSION/ALTERATIONS & NEW GARAGES 60 KINGS ROAD, EMSWORTH HAMPSHIRE, PO10 7HW				Drawing	FOUNDATION & GROUND FLOOR LAYOUTS			
					Job-Dwg Number	16064-BR-3-01		Rev.	B
Client	WENDY ROFE				 JAMES POTTER ASSOCIATES www.jpa.design JPA - PORTSMOUTH Suite 1, Winter Works, Rear of 119 Winter Road Southsea, Portsmouth, PO4 8DS t. +44(0)2393 871 000				
Status	BUILDING REGULATIONS								
Scale	1:50 (1:100 @ A3)		Sheet Size		A1				
Author	RR	Checked	JP	Date	30/05/17				



FIRST FLOOR LAYOUT
SCALE 1:50



INDICATIVE JOIST LAYOUT
SCALE 1:50

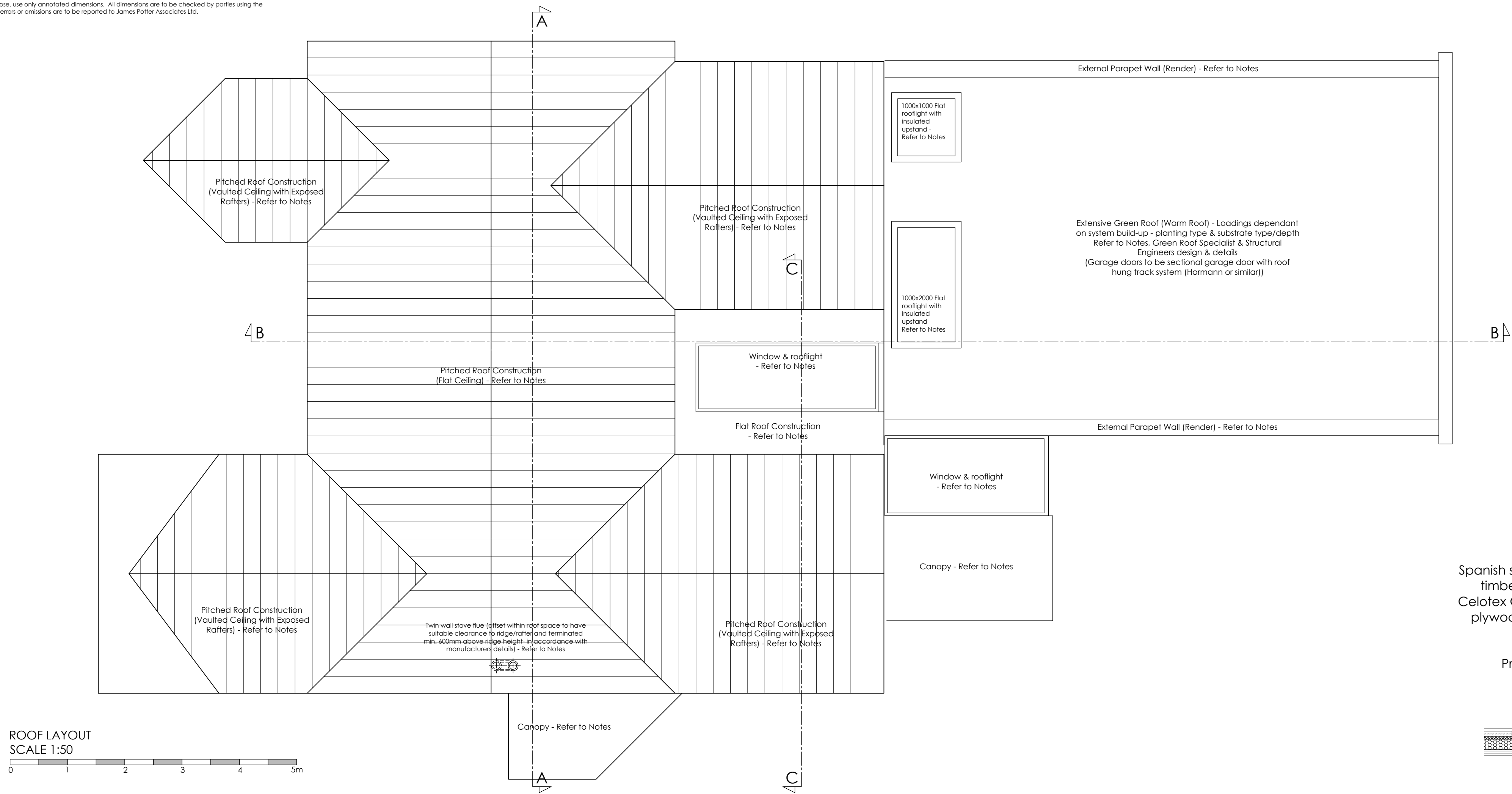


Rev.	Date	Note	Author	Checked
A	04/07/17	Plans updated to suit Structural Engineers information	RR	JP
B	11/07/17	Plans updated to incorporate client changes - see revision clouds • Pocket door added to landing. • Wood burning stove added to lounge. • Vertical timber cladding zone adjusted. • Bedroom 2 ceiling changed to vaulted ceiling.	RR	JP
C	30/10/17	Additional notation added. Plans updated to incorporate client changes	RR	JP
D	29/11/17	Weatherboard replaced by large pebble external finish. Green Roof notation updated	RR	JP

Project	2 STOREY EXTENSION/ALTERATIONS & NEW GARAGES 60 KINGS ROAD, EMSWORTH HAMPSHIRE, PO10 7HW				Drawing	JOIST & FIRST FLOOR LAYOUTS			
					Job-Dwg Number	16064-BR-3-02		Rev.	D
Client	WENDY ROFE				 www.jpa.design JPA - PORTSMOUTH Suite 1, Winter Works, Rear of 119 Winter Road Southsea, Portsmouth, PO4 8DS t. +44(0)2393 871 000				
Status	BUILDING REGULATIONS								
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Author	RR	Checked	JP	Date		30/05/17			

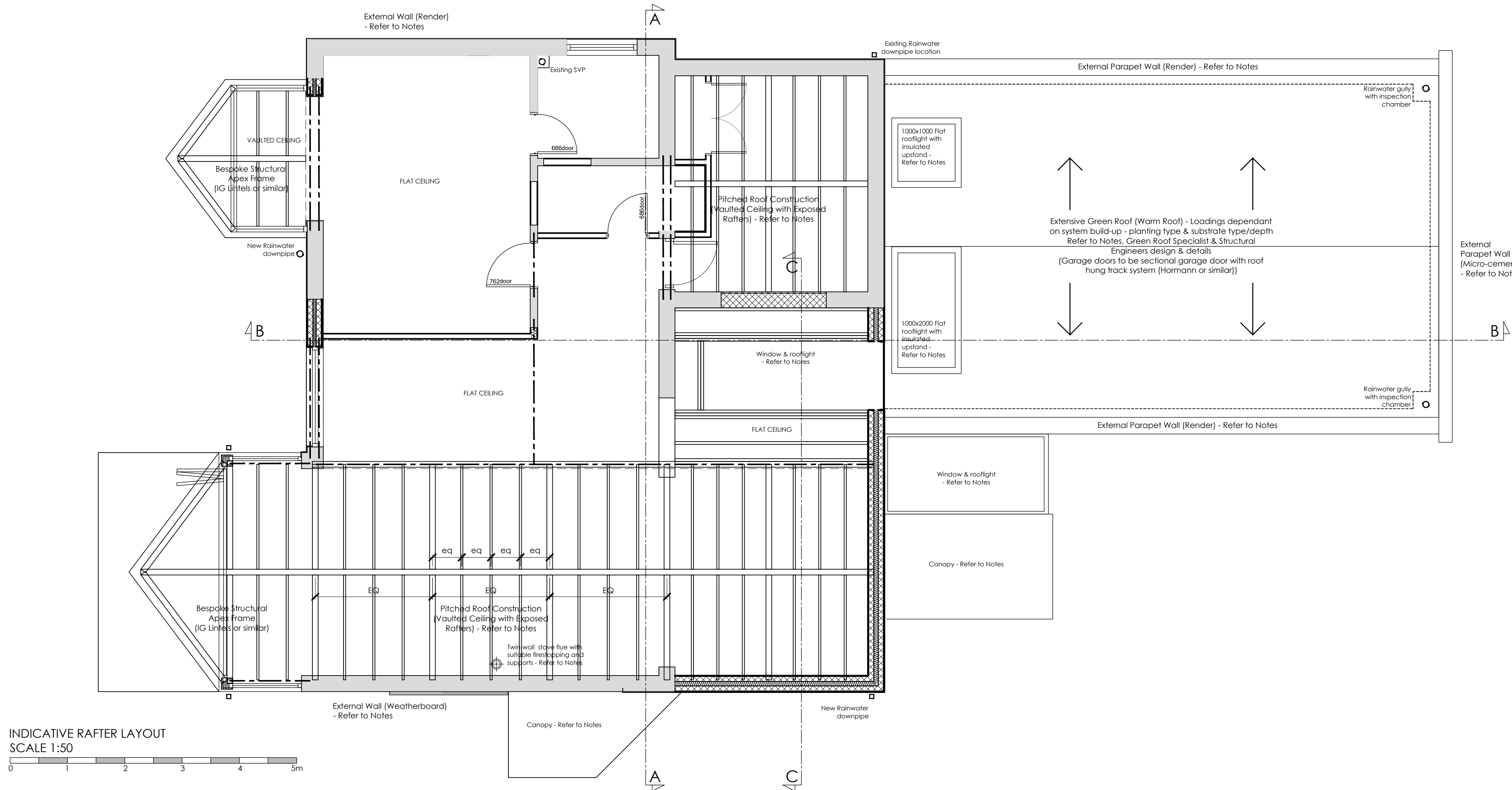
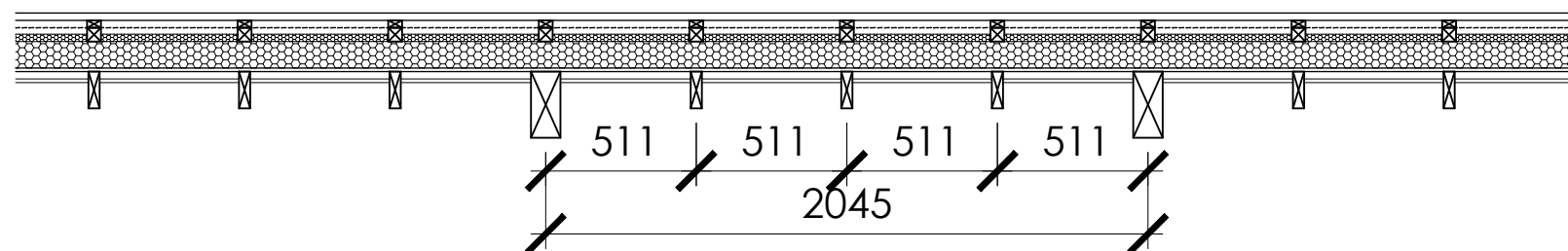
This drawing may be scaled with reference to the scale bar for planning application purposes only. Do not scale for any other purpose, use only annotated dimensions. All dimensions are to be checked by parties using the drawing, and any errors or omissions are to be reported to James Potter Associates Ltd.

Rev.	Date	Note	Author	Checked
A	04/07/17	Plans updated to suit Structural Engineers information	RR	JP
B	11/07/17	Plans updated to incorporate client changes - see revision clouds - Wood burning stove flue added. - Vertical timber cladding zone adjusted. - Bedroom 2 ceiling changed to vaulted ceiling.	RR	JP
C	30/10/17	Additional notation added. Cross-Section through exposed timber rafter warm roof added for information.	RR	JP
D	29/11/17	Green Roof notation updated	RR	JP



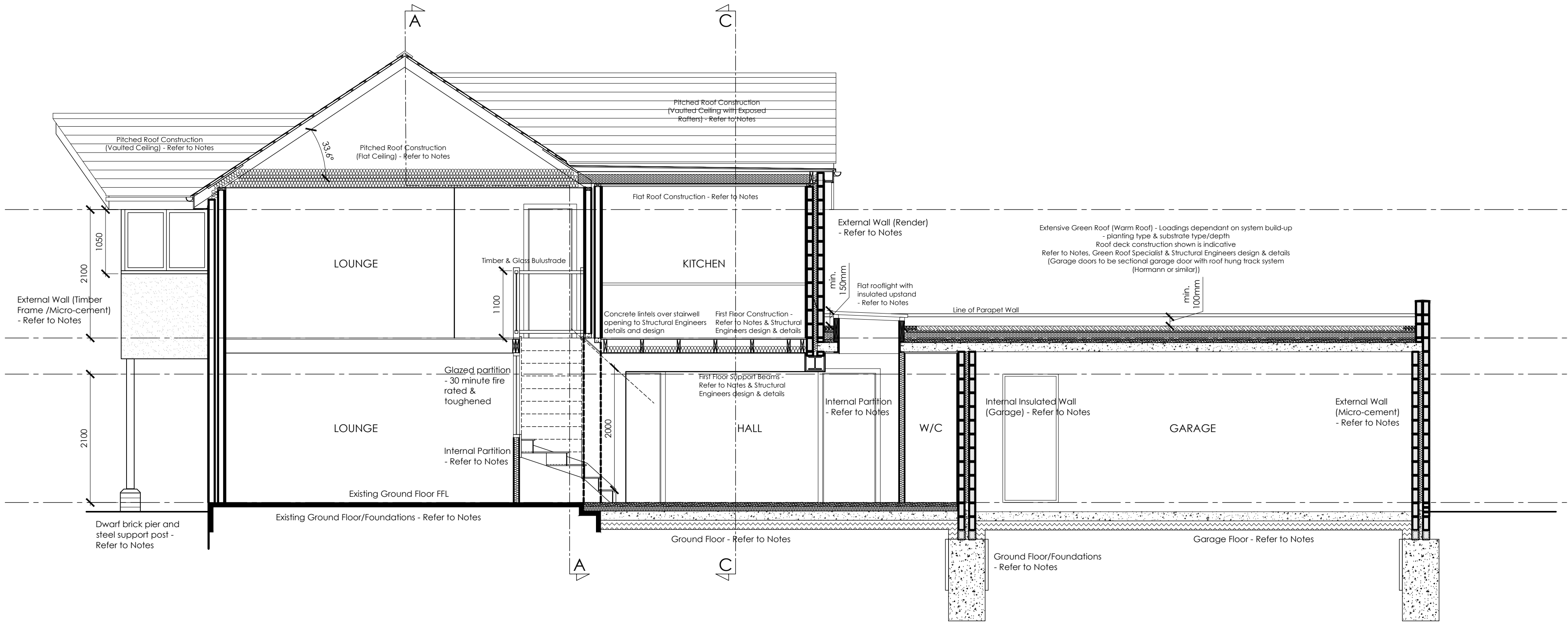
Vaulted Ceiling Roof - Warm Roof with Exposed Rafter & Ridge Beam
Spanish slate roof tiles on 25x38 riling batten on 25x38 counter batten on breather membrane on 47x47mm timber counter-batten, 22mm clear cavity, 25mm Celotex TB4000 between counter-batten, 100mm Celotex GA4000 on 1000 gauge polythene with all joints sealed to form VCL and air leakage barrier, 12mm plywood deck on rafters, 25mm services void and plasterboard with plaster skim finish between rafters.

100x250mm Glulam Ridge Beam. Rafter clear span $\leq 2.4\text{m}$
 Primary Exposed Rafters with cross ties - 100x225mm Glulam Beams @ $\sim 2045\text{mm}$ c/c spacing.
 Secondary Rafters - 38x125mm C24 Timber @ $\sim 510\text{mm}$ c/c spacing.
 All beam/rafter sizes subject to Structural Engineer design & details

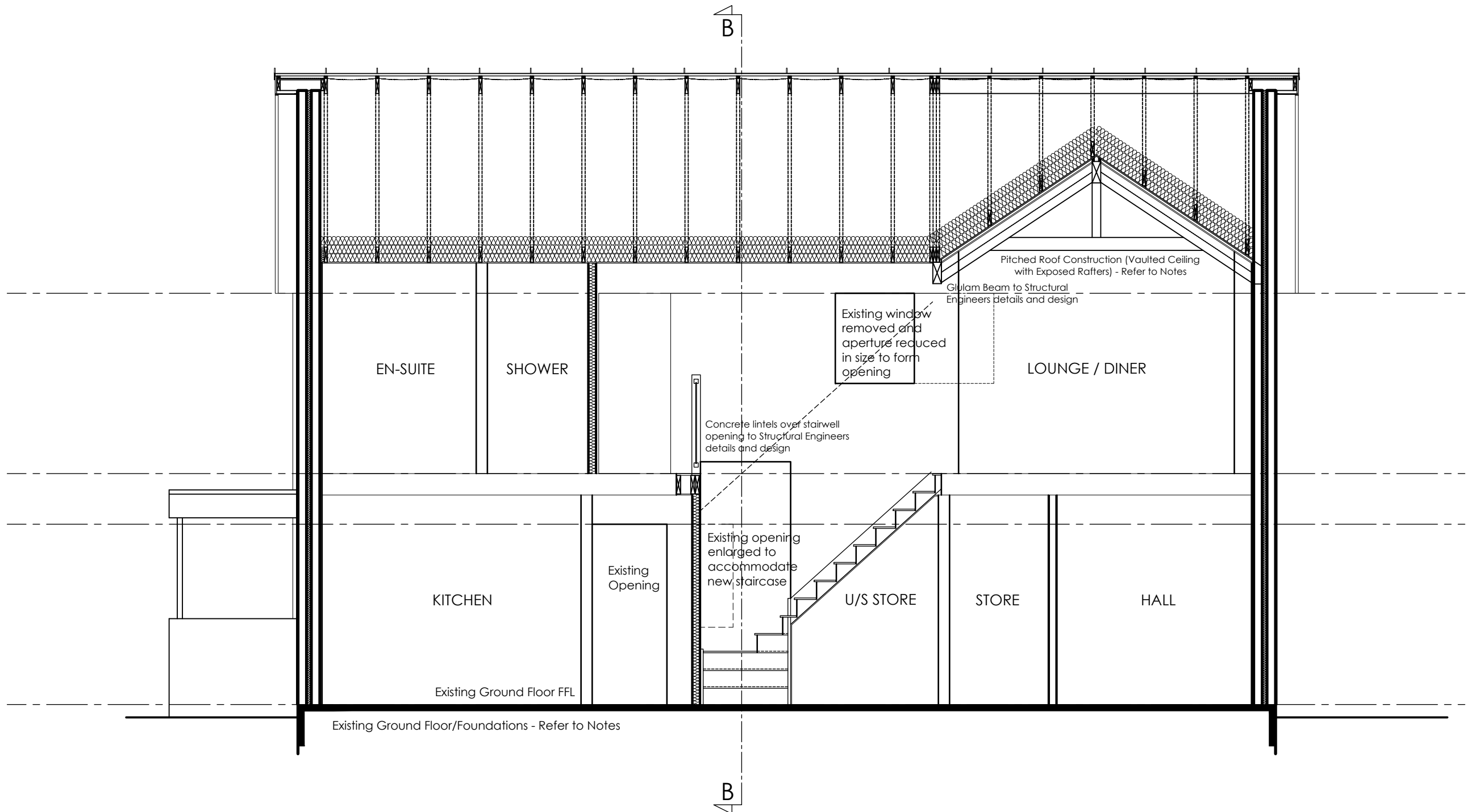


Project	2 STOREY EXTENSION/ALTERATIONS & NEW GARAGES 60 KINGS ROAD, EMSWORTH HAMPSHIRE, PO10 7HW				Drawing	RAFTER & ROOF LAYOUTS			
					Job-Dwg Number	16064-BR-3-03		Rev	D
Client	WENDY ROFE								
Status	BUILDING REGULATIONS								
Scale	1:50 (1:100 @ A3)			Sheet Size		A1			
Author	RR	Checked	JP	Date		30/05/17			
www.jpa.design JPA - PORTSMOUTH Suite 1, Winter Works, Rear of 119 Winter Road Southsea, Portsmouth, PO4 8BS t. +44(0)2393 871 000									

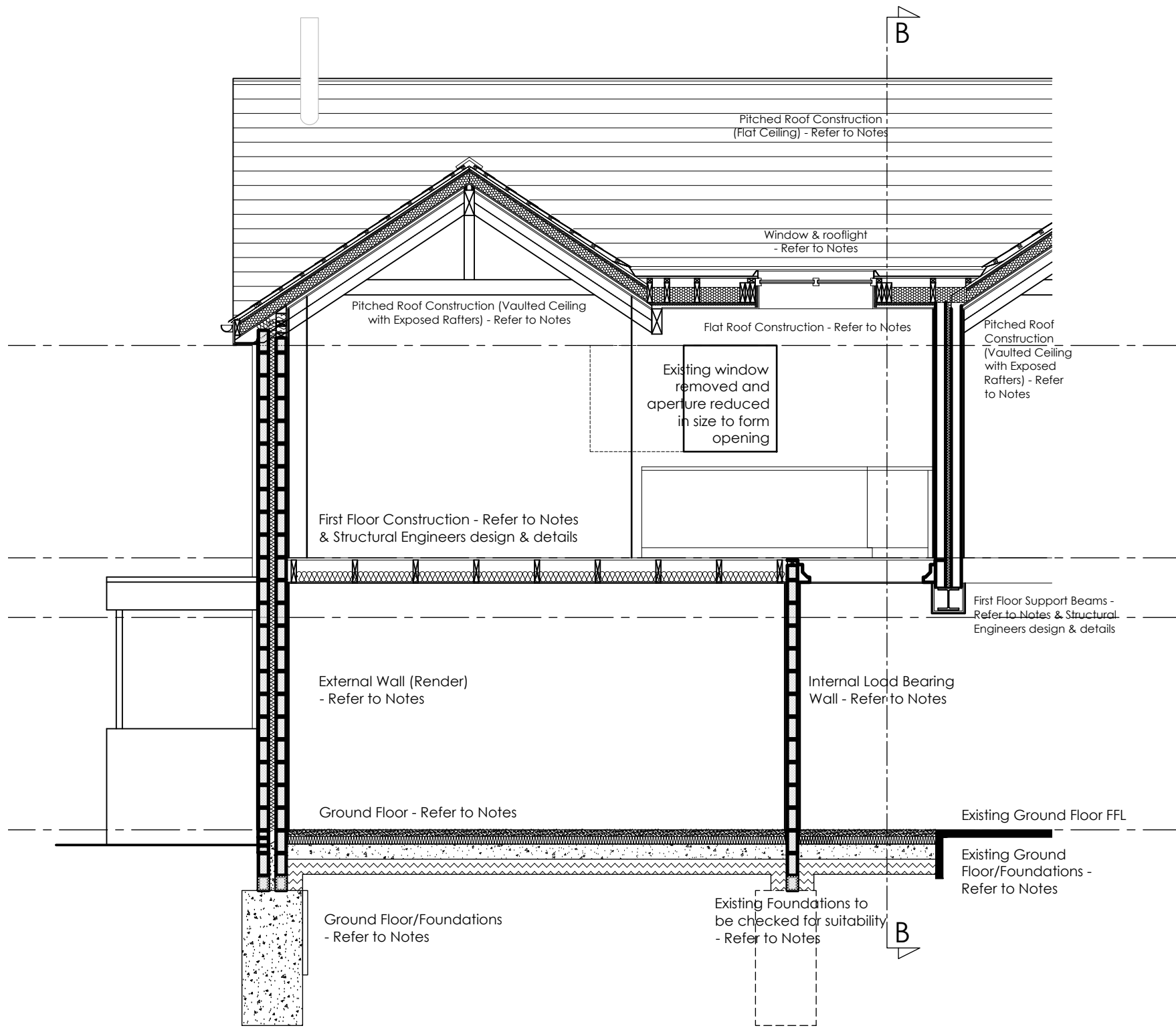
Rev.	Date	Note	Author	Checked
A	04/07/17	Section updated to suit Structural Engineers information	RR	JP
B	11/07/17	Plans updated to incorporate client changes - see revision clouds • Glazed screen added between stairs and ground floor lounge. • Bedroom 2 ceiling changed to vaulted ceiling.	RR	JP
C	30/10/17	Additional notation added. External materials updated. • Roof - Spanish Slate Roof Tiles • Weatherboard replaced by micro-cement on South elevation. • Weatherboard replaced by large pebble wall panel on East elevation. Green Roof notation updated	RR	JP
D	29/11/17		RR	JP



SECTION B-B
SCALE 1:50



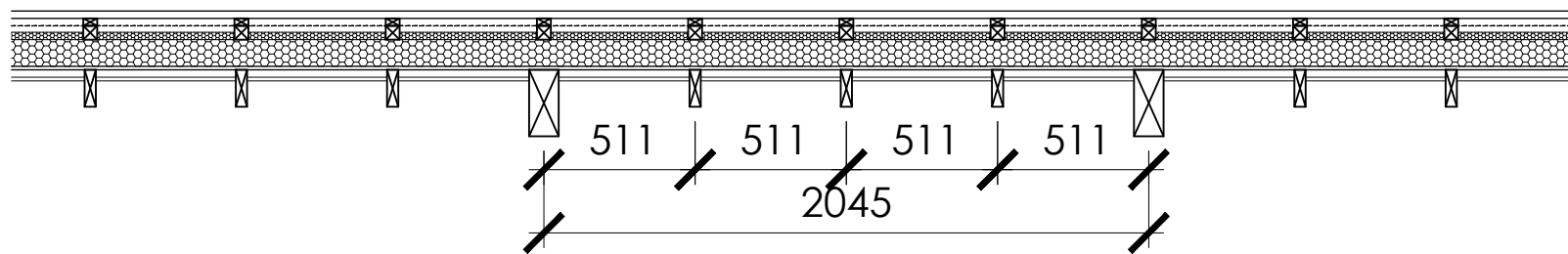
SECTION A-A
SCALE 1:50



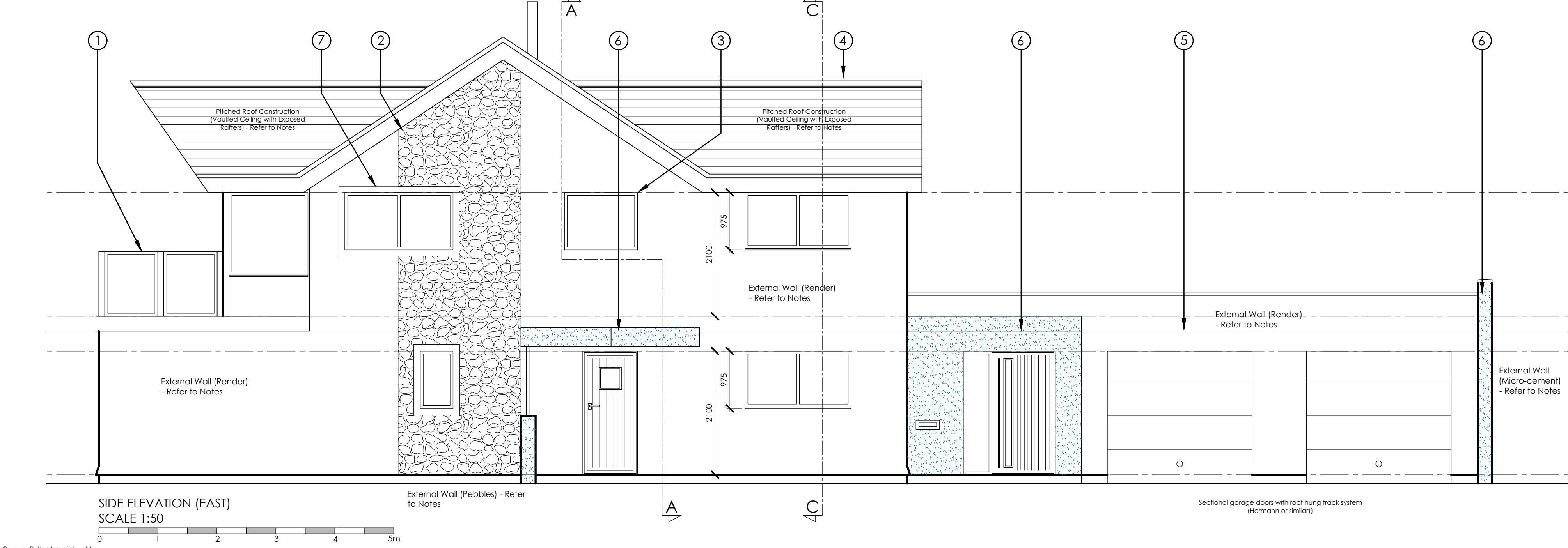
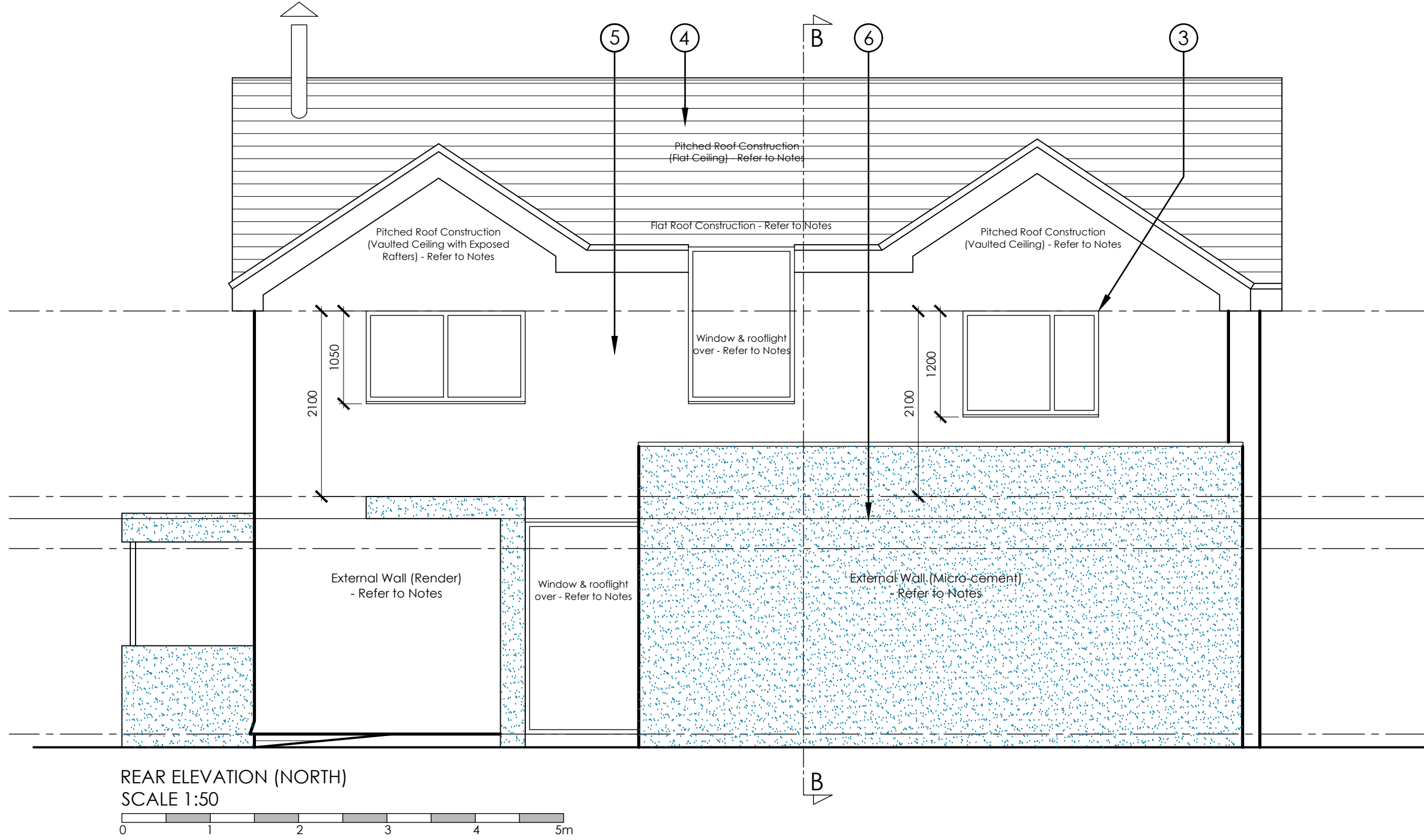
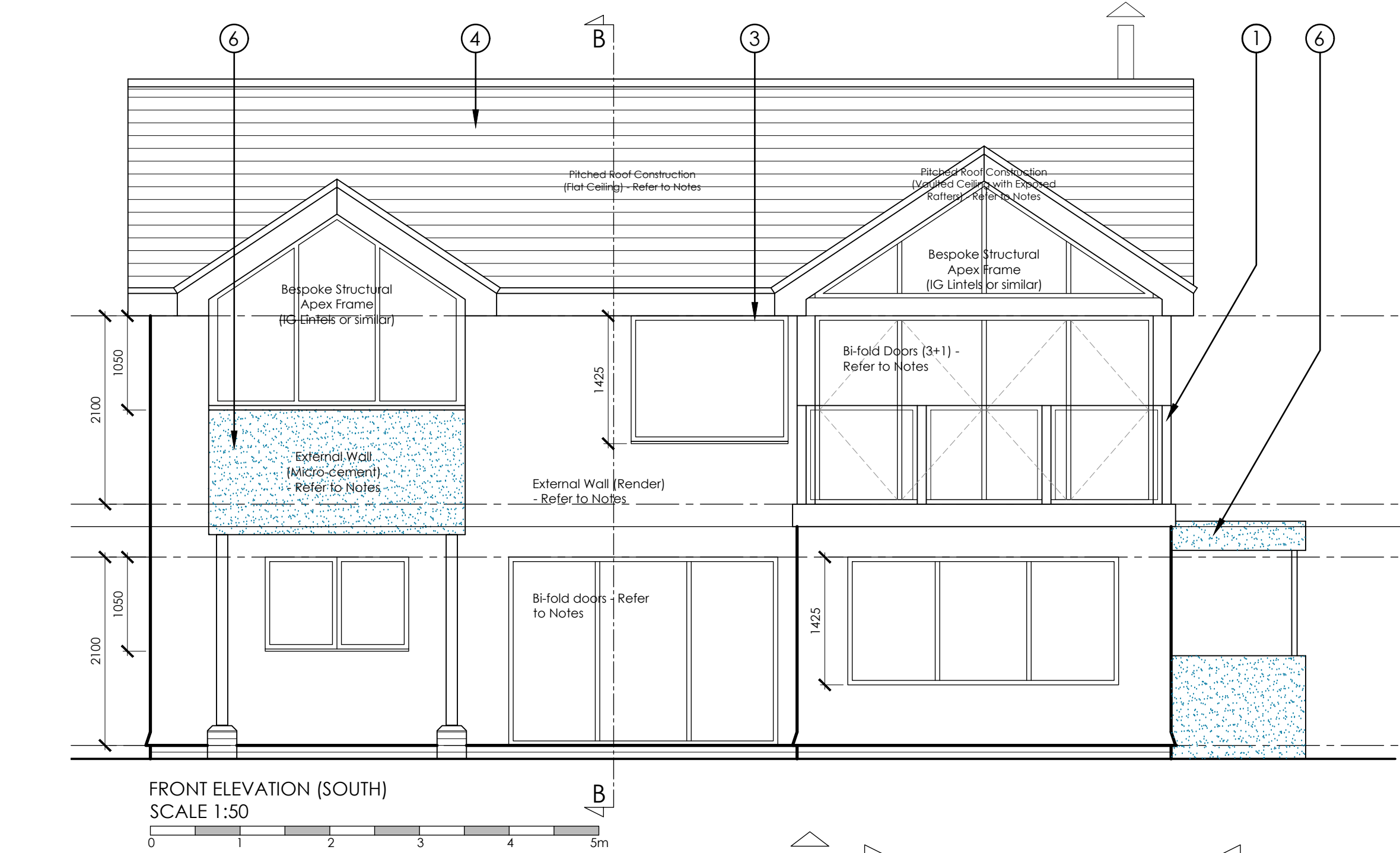
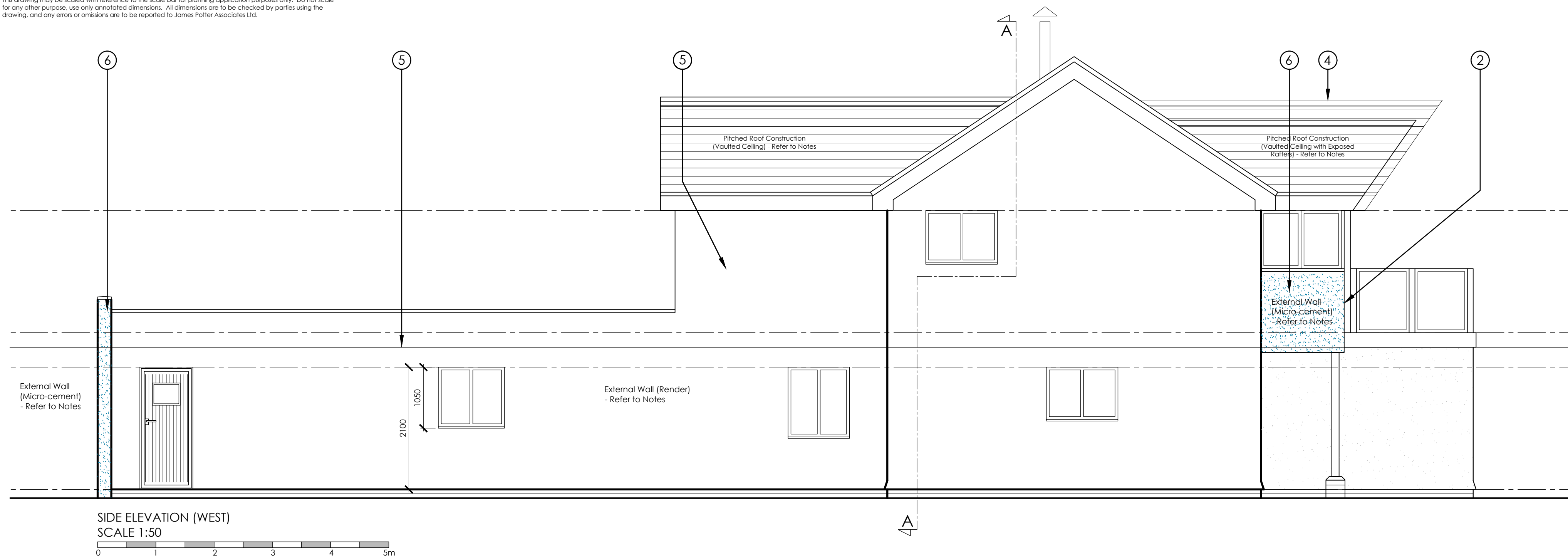
SECTION C-C
SCALE 1:50

Vaulted Ceiling Roof - Warm Roof with Exposed Rafters & Ridge Beam
Spanish slate roof tiles on 25x38 tiling batten on 25x38 counter batten on breather membrane on 47x47mm timber counter-batten, 22mm clear cavity, 25mm Celotex TB4000 between counter-batten, 100mm Celotex GA4000 on 1000 gauge polythene with all joints sealed to form VCL and air leakage barrier, 12mm plywood deck on rafters, 25mm services void and plasterboard with plaster skim finish between rafters.

100x250mm Glulam Ridge Beam. Rafter clear span $\leq 2.4m$
Primary Exposed Rafters with cross ties - 100x225mm Glulam Beams @ $\sim 2045mm$ c/c spacing.
Secondary Rafters - 38x125mm C24 Timber @ $\sim 510mm$ c/c spacing.
All beam/rafter sizes subject to Structural Engineer design & details



Project	2 STOREY EXTENSION/ALTERATIONS & NEW GARAGES 60 KINGS ROAD, EMSWORTH HAMPSHIRE, PO10 7HW	Drawing	SECTIONS	Job-Dwg Number	16064-BR-4-01	Rev.	D
Client	WENDY ROFE	Status	BUILDING REGULATIONS	Scale	1:50 (1:100 @ A3)	Sheet Size	A1
Author	RR	Checked	JP	Date	30/05/17	 www.jpa.design JPA - PORTSMOUTH Suite 1, Winter Works, Rear of 119 Winter Road Southsea, Portsmouth, PO4 8DS T: +44(0)2393 871 000	



Rev.	Date	Note	Author	Checked
A	11/07/17	Plans updated to incorporate client changes - see revision clouds - Wood burning stove flue added. - Vertical timber cladding zone adjusted. - Bedroom 2 ceiling changed to vaulted ceiling. - Back door to garage moved and window put in its original place.	RR	JP
B	30/10/17	Additional notation added. Front door changed to wide pivot type door with side light. Rear side window (West Elevation) within ground floor kitchen closed up to suit preferred kitchen layout. Micro-cement areas clarified. External materials updated. - Roof - Spanish Slate Roof Tiles - Weatherboard replaced by micro-cement on South elevation. - Weatherboard replaced by large pebble wall panel on East elevation. - Reconstituted stone window surrounds added to East elevation windows within large pebble panel.	RR	JP

MATERIALS KEY

1. GLASS BALUSTRADE WITH ALUMINIUM POSTS
2. LARGE PEBBLE WALL
3. GREY POWDER COATED ALUMINIUM WINDOWS
4. SPANISH SLATE ROOFING
5. OFF WHITE RENDER
6. BLUE/GREY MICRO-CEMENT
7. RECONSTITUTED STONE WINDOW SURROUNDS

Project	2 STOREY EXTENSION/ALTERATIONS & NEW GARAGES 60 KINGS ROAD, EMSWORTH HAMPSHIRE, PO10 7HW				Drawing	ELEVATIONS		Rev	B	
					Job-Dwg Number	16064-BR-5-01				
Client	WENDY ROFE				JPA JAMES POTTER ASSOCIATES www.jpa.design JPA - PORTSMOUTH Suite 1, Winter Works, Rear of 119 Winter Road Southsea, Portsmouth, PO4 8DS t. +44(0)2393 871 000					
Status	BUILDING REGULATIONS									
Scale	1:50 (1:100 @ A3)		Sheet Size			A1				
Author	RR	Checked	JP	Date		30/05/17				

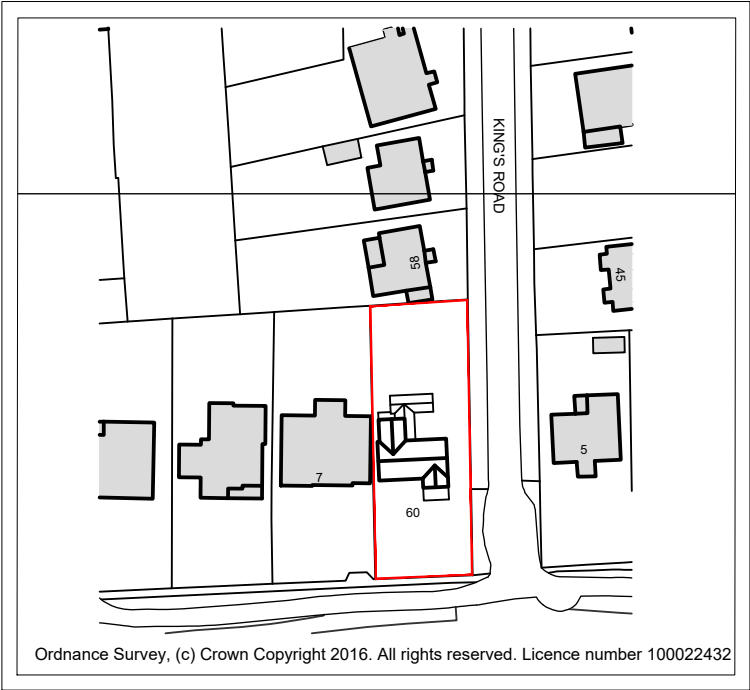
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Rev.	Date	Note	Author	Checked

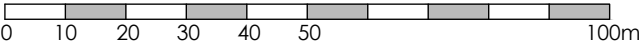
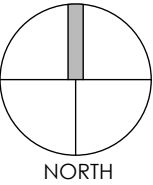
Project	2 STOREY EXTENSION/ALTERATIONS & NEW GARAGES 60 KINGS ROAD, EMSWORTH HAMPSHIRE, PO10 7HW				Drawing	EXTERNAL MATERIALS	
					Job-Dwg Number	16064-BR-5-02	Rev. -
Client	WENDY ROFE				JPA JAMES POTTER ASSOCIATES www.jp.a.design Suite 1, Winter Works, Rear of 119 Winter Road Southsea, Portsmouth, PO4 8DS t: +44(0)2393 871 000		
Status	INFORMATION						
Scale	NTS		Sheet Size A1				
Author	JP	Checked	RR	Date 30/10/17			

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Rev.	Date	Note	Author	Checked
A	09/03/17	Showing parking spaces	JP	AB
B	11/04/17	Amended Garage size and roof finish	JP	DB
C	13/04/17	Amended Garage and porch area	JP	RH

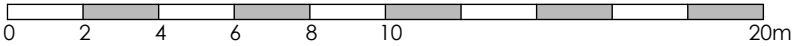


LOCATION PLAN
SCALE 1:1250



PARKING:
4 PROPOSED SPACES

BLOCK PLAN
SCALE 1:200



Project	2 STOREY EXTENSION/ALTERATIONS & NEW GARAGES 60 KINGS ROAD, EMSWORTH PO10 7HW					Drawing	BLOCK AND LOCATION PLAN			
						Job-Dwg Number	16064-PL-001		Rev.	C
Client	WENDY ROFE					 JAMES POTTER ASSOCIATES www.jpa.design JPA - PORTSMOUTH Suite 1, Winter Works, Rear of 119 Winter Road, Southsea, Portsmouth, PO4 8DS t. +44(0)2393 871 000				
Status	PLANNING									
Scale	1:200/1:1250		Sheet Size A3							
Author	RH	Checked	JP	Date	23/02/17					