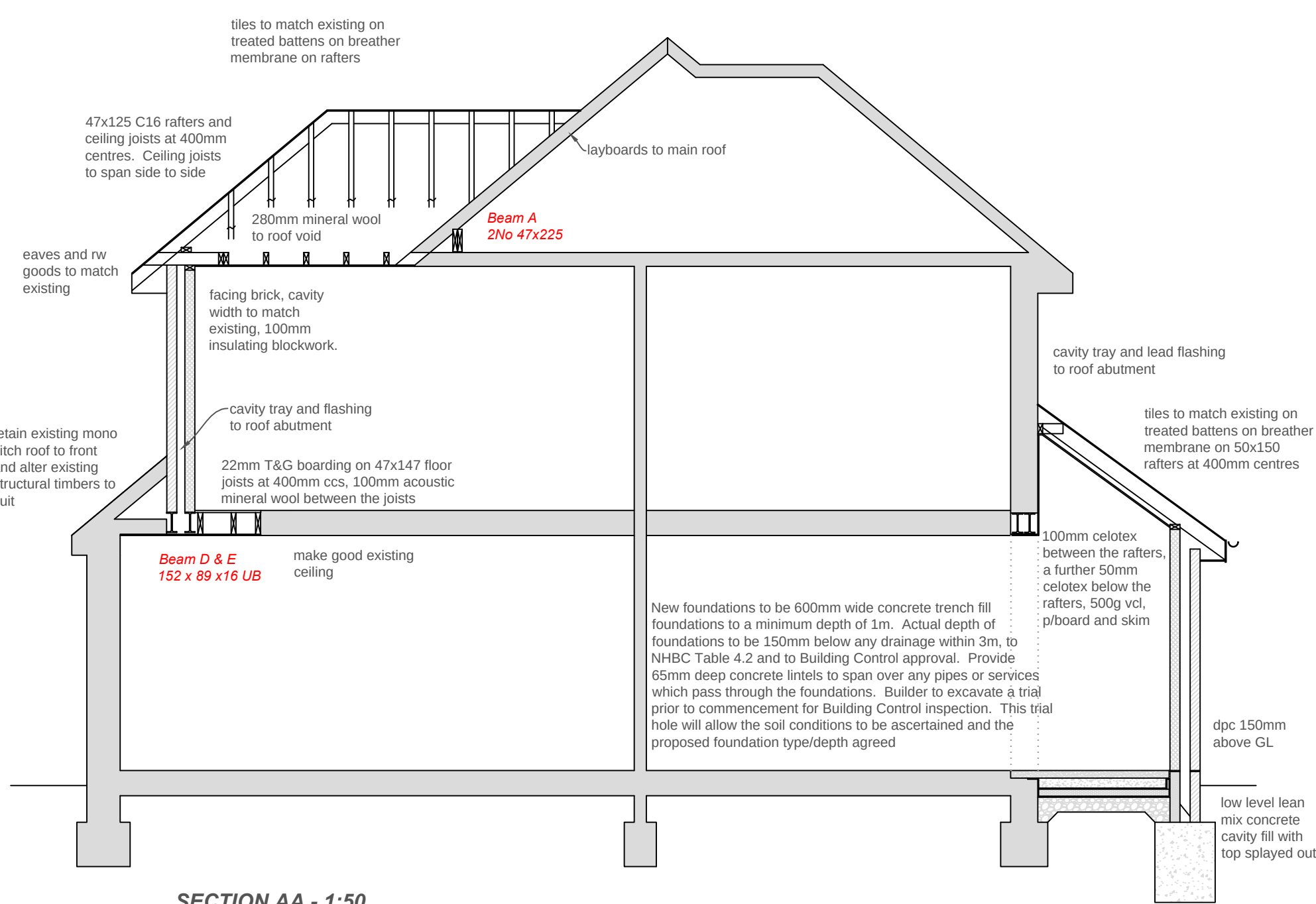
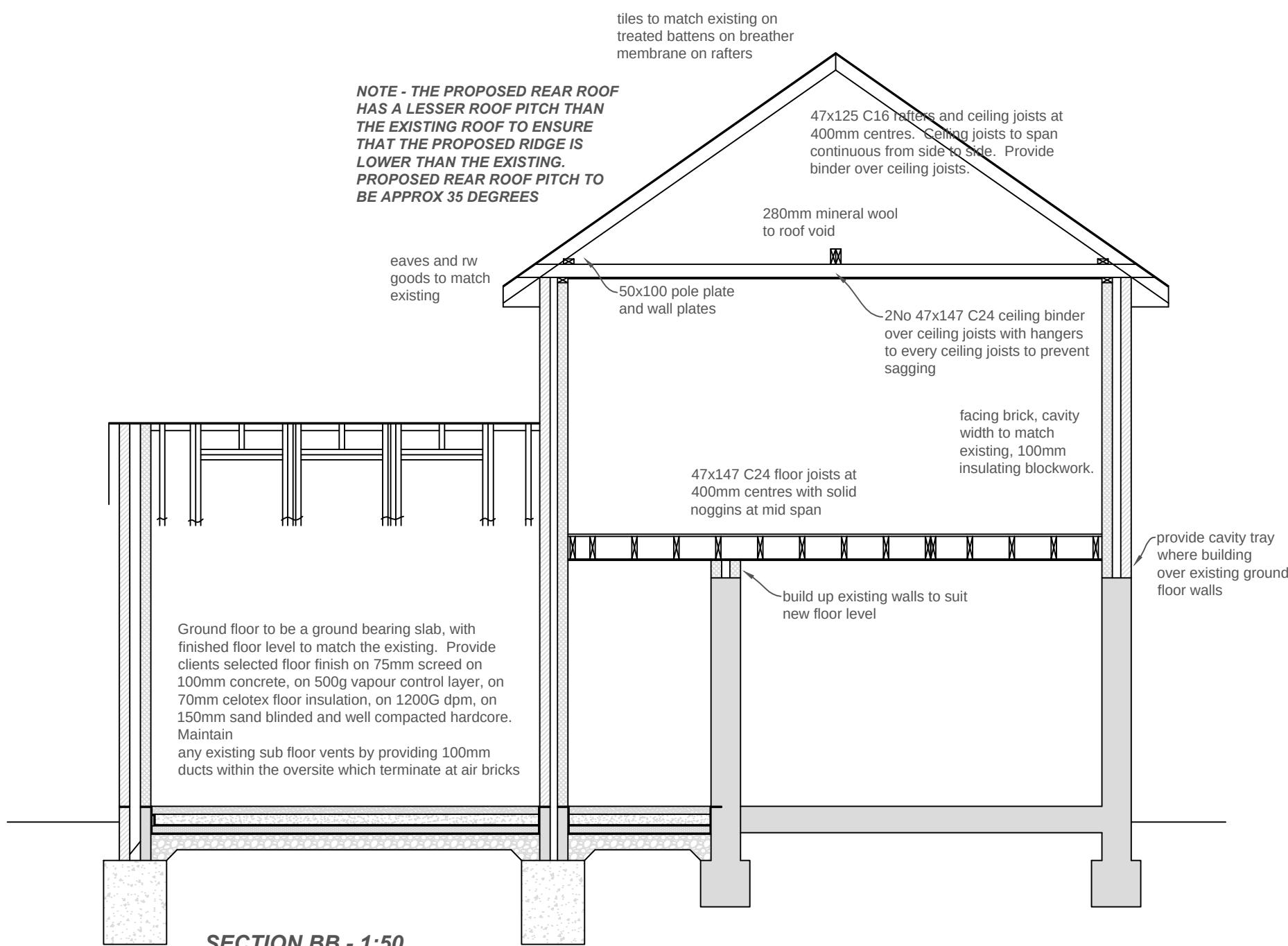
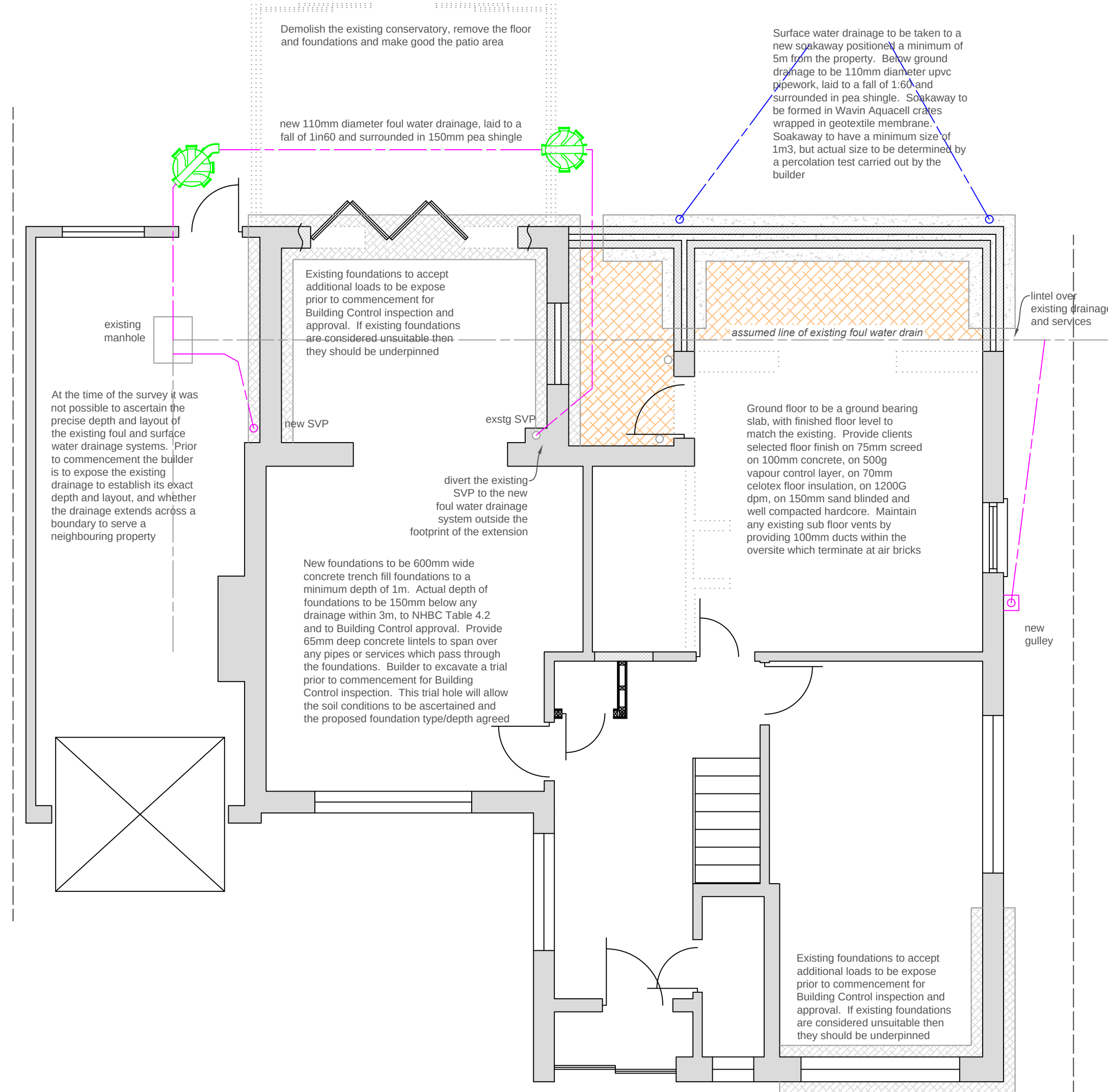




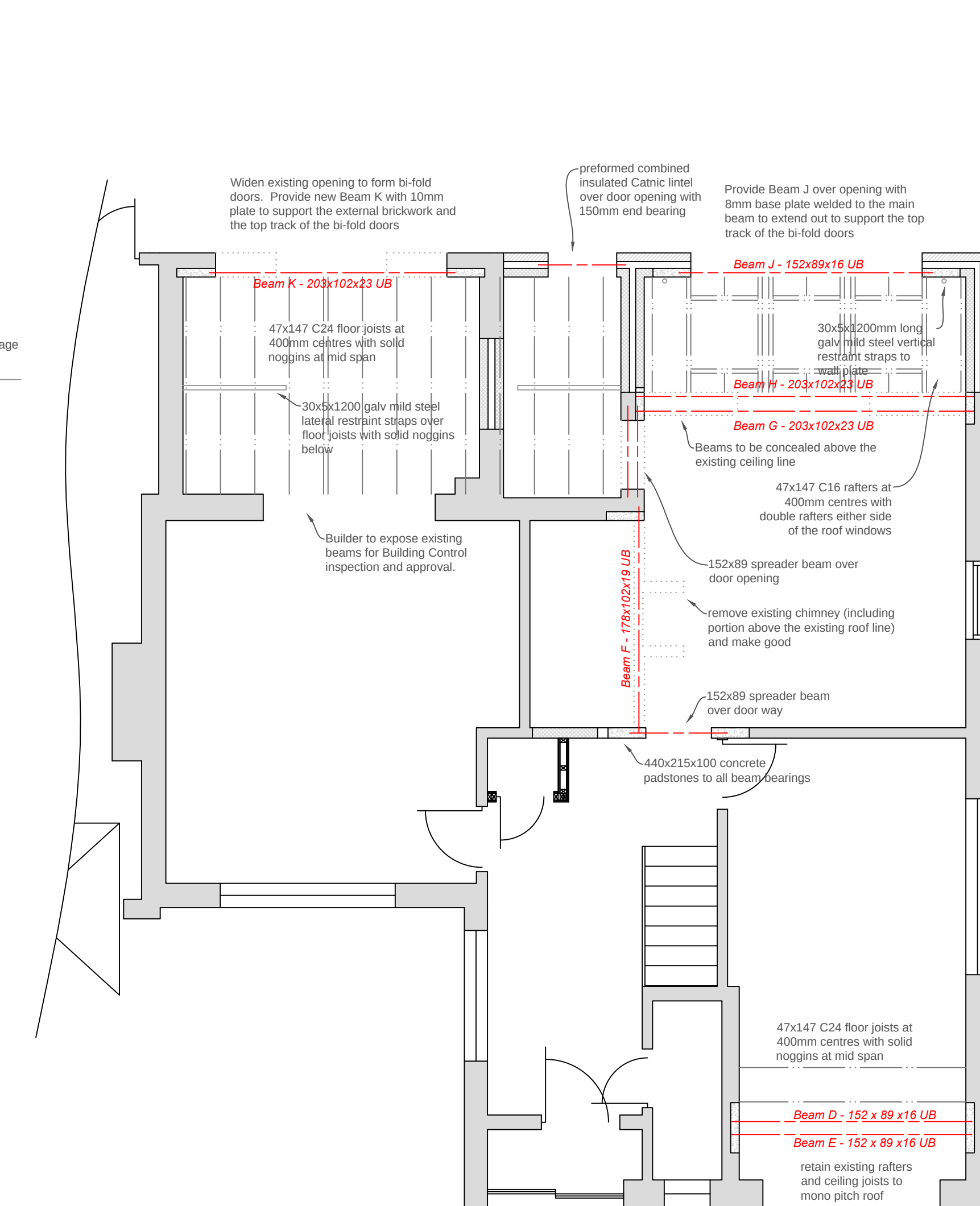
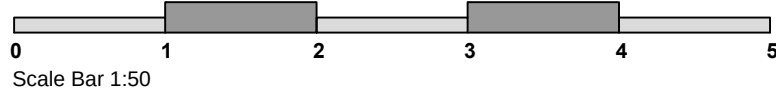
SECTION AA - 1:50



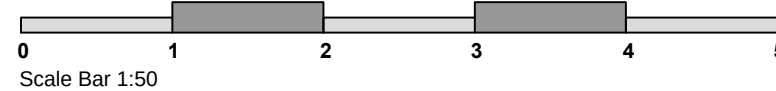
SECTION BB - 1:50



PROPOSED SUBSTRUCTURE PLAN  
1:50



PROPOSED FIRST FLOOR/ROOF STRUCTURE PLAN  
1:50



#### Building Notes/Specification

This is not a specification of works but has only been produced for gaining Planning & Building Regulation approval. The builder/client is responsible for checking prior to commencement all scaled and stated dimensions, with any discrepancies being reported to the designer. The builder/client is also responsible for checking all structural elements (walls, foundations, lintels etc) prior to commencement. Structural design is to be in accordance with the structural engineers details. Client is to ensure that any Party Wall Act notices are signed and resolved prior to commencement.

#### Foundations

New foundations to be 600mm wide concrete trench fill foundations to a minimum depth of 1m, to suit the site conditions and to Building Control approval. In clay subsoil the foundations are to be constructed in accordance with the NHBC Table 4.2. If a clay sub soil is encountered this may dictate the need for a suspended ground floor slab with additional foundations to support the suspended floor. Foundations within 3m of any drainage to be below the invert level of the drains. Where pipes and services pass through the foundations/walls they shall be linteled over, with the void around the pipe suitability sealed.

The builder is to excavate trial hole prior to commencement, for Building Control inspection, to ascertain the precise ground conditions and to allow the foundation depths to be agreed.

The existing foundations taking additional loads are to be exposed on site prior to commencement for Building Control inspection and approval. If the foundations are considered unsuitable then these foundations will need to be underpinned.

#### New Ground Floor

Extension floor level to finish flush with the existing floor. Provide clients selected floor finish on 75mm sand cement screed on 100mm GEN 1 concrete slab, on 500g vapour control layer on 70mm Celotex floor insulation on 1200G dpm, on 150mm sand blinded and well compacted hardcore. Provide 100mm Celotex insulation skinned up around the perimeter to prevent cold bridging. Any existing sub floor vents are to be maintained by providing 100mm diameter ducts within the ground floor hardcore which terminate at air bricks and telescopic ventilators. Provide cavity trays and weep holes over the air bricks.

#### Below Ground Walls

Walls below ground to be 100mm dense concrete block inner skin, with 100mm cavity and brick outer skin. 100mm cavity, filled with lean mix concrete (top spalled outwards) to 215mm below the lowest dpc. Below ground walls to internal walls to be 100mm blockwork. Provide a dpc at floor level which is lapped to the existing dpc.

#### Above Ground Walls

External brickwork to match existing with 100mm cavity fully filled with Crown Dri-Therm Insulation Batts, 100mm Thermalite Shield insulating blocks, with plasterboard on dabs and skim finish. The external wall construction achieves a U value of 0.24W/m2K. Where the first floor walls are being built over the existing ground floor walls the cavity width is to match the existing cavity width. If the existing cavity width is less than 75mm it will be necessary to provide 150mm insulated backed plasterboard to the inside face of the new walls. Provide a cavity tray where the new walls are built over the existing.

Provide wall ties at 750mm centres horizontally, 450mm centres vertically, and at every block course within 300mm of openings. Insulated damcore vertical dpc's to be used at reveals to prevent cold bridging. Provide preformed insulated IG/Catnic lintels over new openings with minimum 150mm end bearing. Lintels to suit the manufacturers span and load tables. Expose any existing lintels taking additional loading for Building Control inspection and approval.

All cavities to be continuous with existing, and new work to be bonded to existing with Furfix slip connectors to create a movement joint. Provide movement joints in the external walls at 6m centres with debonding ties and mastic vertical joint. Provide a continuous horizontal dpc 150mm above ground level, and continuous with any existing membranes. Provide vertical restraint straps at 2m centres to the wall plates. Provide lateral restraint straps (with solid nogginns) below the floor joists at 1800mm centres. Restraint straps to be 30x5x1000mm long galvanised straps.

#### First Floor

Provide new 47x147 C16 floor joists at 400mm centres. Increase the depth of the floor joists as necessary to achieve a matching first floor and ceiling level with the existing. Provide multiple joists below any stud walls and below any baths. Provide solid strutting to the new joists at one third span. Joists to be either built into the walls or provided on masonry hangers, and built into the web of the steel beams. Joists to be covered in 22mm t&g moisture resistant floor boarding over the joists. To the ceiling provide 100mm mineral wool between the joists with 12mm plasterboard and skim to the ceiling. Ceiling to match the level of the existing ceiling. Joists to be trimmed 50mm from any chimney breast

#### Internal Stud Walls

Provide 50x75 timber studs at 400mm centres with head and sole plates and intermediate nogginns. Provide 75mm mineral wool within the studs. Provide ply bracing either side of the studs with plasterboard and skim finish.

#### Roof Construction - Two Storey Roof

Provide a 50x100 treated timber wall plate strapped to the external walls. Provide 50x125 ceiling joists and rafters at 400mm centres. Birds-mouth the rafters over the wall plate and the pole plate. To the rear roof provide a central 2No 47x147 ceiling binder with hangers to every floor joist. Provide a 50x100 timber support from the ridge to the ceiling binder with bolted connection. Provide 300mm mineral wool within the roof void. To the ceiling provide vapour control layer, 12mm plasterboard and skim. Over the rafters provide breather membrane, treated battens, and tiles to match the existing. Provide matching eaves detailing and rainwater goods. The rear roof has a reduced roof pitch of approx 35 degrees. Form a lead lined valley gutter between the front pitched roofs.

#### Roof Construction - Single Storey Roof with Skilling Ceiling

Provide a 50x100 treated timber wall plate strapped to the external walls. Provide 47x147 C24 rafters at max 400mm centres. Birds-mouth the rafters over the wall plate, roof beams and over a head plate (which is bolted to the wall at 600mm centres). Between the rafters provide 100mm celotex insulation, maintaining a 50mm ventilation void over. Provide a further 50mm celotex below the rafters with the joists fully taped. Provide 500g vapour control layer to the ceiling, then 12mm plasterboard and skim. Over the rafters provide breather membrane, treated battens, and tiles to suit the roof pitch. Provide matching eaves detailing and rainwater goods.

#### Leadwork

Provide cavity trays and lead flashings to all roof/wall abutments in accordance with the LDA guidelines.

#### Steel Beams

Provide steel beams, columns, connections, bearings and piers in accordance with the structural engineers design. Form new piers to steel beams as required by structural engineer. Steel beams to be coated with an intumescent paint to achieve 30 minutes fire resistance.

#### Fire Safety

Provide new mains operated (with battery back-up) and interlinked smoke/heat detection within the property - as shown on the floor plans.

Steel beams and columns to be coated to achieve 30 minutes fire resistance.

Provide a means of escape window to the new first floor bedroom. The means of escape window must provide a minimum clear unobstructed opening width and height of 450mm, and a minimum unobstructed opening area of 0.33m2 (i.e. 450mm wide x 740mm in height). Provide flying mullions to the windows as necessary.

#### Windows/Glazing

Windows to be UPVC double glazed units with a 16mm air gap, soft low E coating argon filled and warm edge spacer bar to achieve a U value of 1.60W/m2K. Provide safety glass in the critical areas.

Windows/doors to habitable rooms to have trickle vents giving background ventilation of 8000mm2. Window to the non-habitable rooms to have 4000mm2 trickle vents. Frames to be glazed externally and internally with mastic.

Bi-fold doors are to be designed by the sizing manufacturer. Details of the glazing to be provided to client and Building Control for approval prior to installation.

#### Ventilation of Rooms

Habitable rooms to have trickle ventilation of 8000mm2 and 4000mm2 to non habitable rooms. Kitchen to have extract ventilation of 60 litres per second (or 30 litres per second if ducted to the outside air). Kitchen and Bathroom to have extract ventilation of 15 litres per second. Utility Room to have extract ventilation of 30 litres per second. All extract fans are to be ducted to the outside air (including any cookerhoods). Fans to be tested on completion with certificate issued to Building Control confirming that the fans achieve the specified extraction rate.

#### Heating

Existing boiler to be assessed by a Gas Safe Engineer for extending into the new rooms. Where necessary provide a new gas pressurised boiler system in a position to be determined on site. Boiler to have a minimum efficiency of 92%. Boiler to have a timer, thermostat, zone controls and TRVs to radiators. The boiler to be flued in accordance with Part J. The detailed design of the heating and hot water system is to be carried out by the Gas Safe Engineer. All works to the boiler to be carried out by a Gas Safe Engineer. Type and position of radiators, or underfloor heating to be determined with the client prior to installation.

**Surface Water Drainage** to be UPVC gutters and downpipes to match the existing. Rainwater pipes to be taken to a below ground drainage system, which connects to a new soakaway. Below ground surface water drainage to be 110mm diameter drainage laid to a fall and on a bed and surround of 150mm of pea shingle. Junction of the below ground drainage with the above ground rainwater downpipes is to be sealed with a rubber junction piece. Soakaways to be positioned a minimum of 5m from any building and to be formed in Wavin Aquacell crates lined with a geotextile membrane. Soakaway to have a minimum volume of 1m3, but actual volume to be determined by a percolation test carried out by the builder. Alter the existing gutter as necessary to suit the position of the relocated/new down pipes.

#### Foul Water Drainage

Foul water drainage to be 110mm diameter UPVC pipework, laid to a fall of 1in40 and bedded and surrounded in 150mm pea shingle. Sinks, basins, baths and showers to have 38mm diameter waste pipes. Combined wastes to be minimum of 50mm diameter. WCs to have 100mm diameter waste pipe. Above ground drainage pipes to have deep seal traps and to be laid to a suitable fall. New SVPs to extend 900mm above the first floor window heads and to be capped with a plastic cage. Stub stacks to be capped with an air admittance valve positioned above the highest flood level.

Builder to expose the existing below ground drainage prior to commencement to ascertain its precise depth and layout.

#### Meters/Services

Builder to ensure that all services are repositioned/relocated/re-routed to suit the proposed extension.

#### Electrics

Electrical installations to be in accordance with the latest edition (17th) of the IEE Regulations, and to be carried out by a NICEIC registered competent person, with a certificate of installation provided on completion of the project. Locations of sockets and switches to be determined on site. 75% of all lights are to only accept low energy light bulbs. Any external lighting is to be fitted with a sensor.

#### Finishes

All finishes, including skirting boards, coving, doors, architraves, radiators, kitchen units, tiles, lights, sanitaryware, switches, sockets, light fittings etc are to be agreed with the client on commencement of the project.

The drawings, details and specifications are solely for the purpose of seeking Planning and Building Regulation approvals. They are not intended as a specification of works, and PMG Ltd accepts no liability should they be used in this manner.

Drawing to be read in conjunction with specification, details notes and any specialist design elements. Any works carried out prior to approval are done so at the clients/builders own risk.

The contractor is responsible for checking all scaled and stated dimensions prior to commencement on site. The length of all structural elements are to be checked on site prior to placing orders.

The builder is to expose any existing structural elements (foundations, walls, lintels, floors, beams, roofs etc) which are accepting additional loads for Building Control and client approval prior to commencement.

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Any boundaries shown on the plan are their assumed location/line. No works to project over the boundary line.

Client is resolve all matters relating to the Party Wall etc Act 1996 prior to commencing building works

|                                                                                                                                                                                           |                                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Project Title                                                                                                                                                                             | <b>Proposed Extensions &amp; Alterations<br/>42 Warblington Road<br/>Emsworth<br/>Hampshire<br/>PO10 7HQ</b> |
| Drawing Title                                                                                                                                                                             | <b>Proposed Sections<br/>Structural Plans<br/>Construction Notes</b>                                         |
| Client                                                                                                                                                                                    | <b>Mr K Bond</b>                                                                                             |
| Date:                                                                                                                                                                                     | <b>January 2015</b>                                                                                          |
| Scale:                                                                                                                                                                                    | <b>1:50 at A1</b>                                                                                            |
| Drawing No.                                                                                                                                                                               | <b>003 rev B</b>                                                                                             |
| <b>PMG</b><br>SurveyingPlanDrawingConsultancy                                                                                                                                             |                                                                                                              |
| <b>PMG (Building Design &amp; Consultancy) Ltd</b><br>20 Bluebell Way,<br>Whiteley, Fareham,<br>Hampshire PO15 7FF<br>Tel: 07796 124247<br>Email: paul@pmgtdt.uk.com<br>www.pmgtdt.uk.com |                                                                                                              |