

Construction Notes

**GENERAL SPECIFICATION** - All works are to comply with the current Building Regulations, British Standards and Codes of Practice referred to herein but not specifically mentioned. The works shall be carried out to the full satisfaction of the local authority Building Control Officer, Approved inspector or other body including submission of all necessary notices and payment of fees. All products referred to on the drawing and this specification are to be used strictly in accordance with the manufacturer's recommendations. Before starting any works, all site conditions and dimensions are to be checked and verified by the builder and any discrepancies reported to the Client. Allow to supply and fit all new finishes/fittings to match existing unless otherwise specified, eg. doors/frames, windows, door and window furniture, skirtings, architraves, dado/picture rails etc. All softwood used in a structural capacity to be FSC or PEFC certified, min C16 grade (to BS 5268 pt 2, 1991) unless otherwise specified.

**STRUCTURAL DESIGN** - Construction specification to be read in conjunction with any structural calculations relating to project.

**ELECTRICS** - All electronics to be wired in accordance with latest IEE Regulations. Power outlets and light fittings to be located as directed by applicant. Efficient lighting to be provided in new buildings/extension/alterations to at least 75% of the total of all new light fittings to have a luminous efficacy greater than 45 lumens per circuit-watt. Fixed external lighting to be controlled via sensors which automatically turn off lights when not required and when there is sufficient daylight. Each external light fitting should not have a lamp capacity exceeding 150W. All electrical work required to meet the requirements of Part P (Electrical Safety) must be designed, installed, inspected and tested by a registered person competent to do so. Prior to completion the Council should be satisfied that Part P has been complied with. This will require an appropriate BS 7671 electrical installation certificate to be issued for the work by a registered person competent to do so.

**METERS** - Where existing gas and electric meterboxes need re-locating, applicant should contact relevant service providers and all work to be carried out by nominated contractors.

**HEALTH AND SAFETY** - The client is to be aware that the work shown should only be executed by competent builders who are fully proficient in all forms of safety procedure relating to all aspects of building, demolition and temporary shoring and the safe operation of all plant and equipment including personal protection. The Principal Contractor is responsible for preparing a Construction Phase Health and Safety Plan before commencing work, which shall include all necessary method statements and risk assessments and details of welfare facilities relating to the work shown on the plans and detailed in the specification. This document shall be made available to the Client if required. For domestic clients, the Principal Contractor is responsible for notifying the HSE if the project is to last more than 30 working days or involve more than 20 workers working simultaneously at any point in the project or exceed 500 person days. Upon completion of the work, if there has been more than one contractor involved in the project, the Principal Contractor shall provide a Health and Safety File to the Client. This shall contain as-built information, details of underground services, any hazardous materials used, health and safety maintenance instructions, maintenance manuals, all certificates and consents and details of any residual hazards that remain.

**PARTY WALL ACT** - Main contractor to ensure that there will be no undermining of foundations to adjacent properties and where applicable new works of any nature that are within 3 meters of adjacent owners property and boundary walls, the main contractor is to ensure all relevant notices are served, and agreements obtained in accordance with the Party Wall Act 1996, before any works are commenced.

**ENCROACHMENT** - No part of the structure above or below ground is to encroach over the boundary of adjacent properties without written consent from owners.

**FOUNDATIONS** - Final depth and size to be agreed on site with Local Authority Building Control Officer. Foundations shown in 1:3:6 mix concrete (20mm agg/Gen 1. Min. depth of 1m below finished ground level. Where trees are present in cohesive sub-soils depth to be determined in accordance with NHBC Standard foundation depth guidance notes - Chapter 4.2 or Structural Engineer consulted for final design. Drains where present passing through foundations to be sleeved and surrounded in a flexible material with vermin mesh to outside face of foundations. Foundation to be provided under all external walls where indicated on plan. Foundations taken below invert levels of any adjacent drains within 1m and public sewers where indicated on plan with Build Over Agreements sought from Anglian Water prior to any commencement of work within 3m of public sewers.

**SUB-STRUCTURE** - Solid walls below ground level present to consist of solid fletton brickwork to correspond with thickness of walls above dpc including any piers indicated. The outer face of the plinth element of the wall is to be built using facing bricks from external ground level to dpc.

**GROUND FLOOR CONSTRUCTION** - 100mm oversite concrete on 100mm minimum well consolidated and blinded hardcore.

**DAMP PROOF COURSE** - 'Hyload' or similar approved damp proof course to full thickness of all solid walls and cills, all having a minimum of a 100mm sealed lapped joints. Continuous damp proof course to be provided around the building, positioned in all external walls at least 150mm above surrounding ground or paving level.

**WALL CONSTRUCTION** - The masonry walls above dpc level are to be constructed in solid masonry construction comprising 225mm solid facing brickwork forming plinth and continuing above with timber weatherboarding fixed to treated vertical battens fixed through layer of Tyvec breather membrane into 220mm blockwork.

**LATERAL RESTRAINT** - Restraint straps to be provided at 2m c/c at roof level and floors above ground level where present. Straps to span minimum 3 no. joists with noggins between joists on line of straps.

**MOVEMENT / EXPANSION JOINTS** - New masonry walls constructed with movement joints all in accordance with manufacturers guidance and instructions. In general, provide movement joints to facing brickwork at maximum 12m centers and no less than 6m from any corner, aggregate blockwork at maximum 9m centers and lightweight autoclaved aerated blockwork at maximum 6m centers. New work to be tied to existing using 'Parflex' or similar approved superstructure wall brackets. (Fixed in accordance with manufacturers instructions.) Provide stainless steel brackets to external leaf, galvanised brackets to internal leaf. Provide horizontal ties into new mortar beds at 450mm centres vertically. Provide 10mm 'Comband' between horizontal ties and seal externally with a 2 part polysulphide sealant.

**LINTELS** - All lintels are to be galvanised steel lintels in masonry walls, 'catnic' or similar approved, where indicated and attaining 150mm end bearings. Lintel types as indicated on plan.

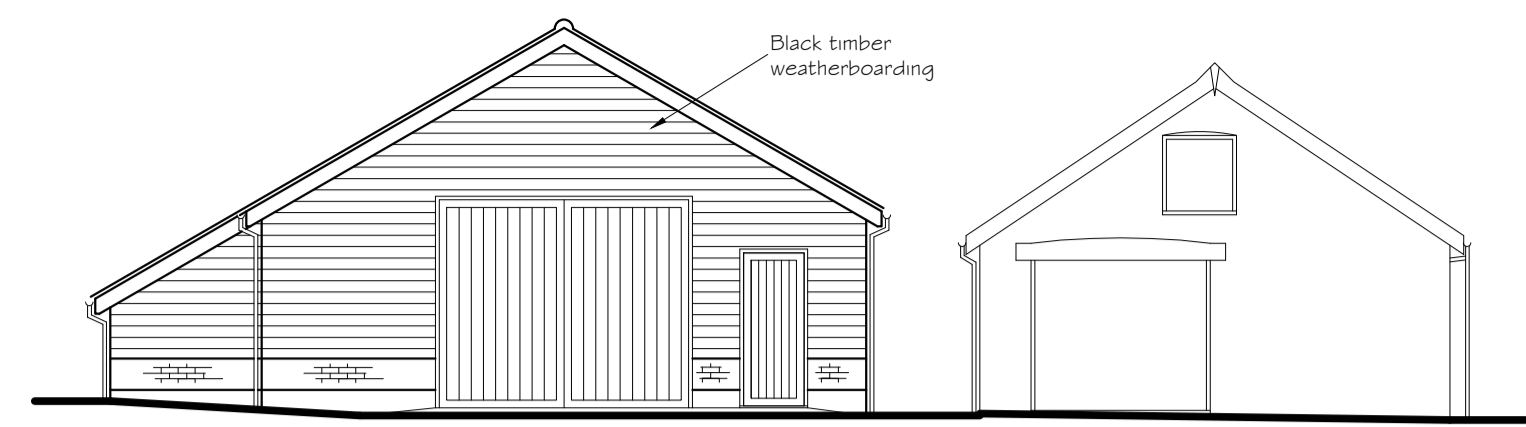
**DOORS** - Provide timber/upvc doors where indicated.

**ROOF CONSTRUCTION** - Roof timbers to comprise of 225mm x 75mm C24 grade rafters at 300mm c/c mechanically fixed to ridge beam, and braced/outraced over 100 x 50mm timber wall plates strapped to new masonry walls at 1.5m centres. Provide 12mm ply sheathing fixed to underside of rafters to provide bracing to roof structure. Roof finish to comprise of roof slates and ridge tiles (suitable for pitch) fixed to 50 x 25mm s/w treated tile battens fixed through layer of Proctor Roofshield vapour permeable membrane into rafters. Provide eaves with fascia board and soffit as indicated to accept guttering.

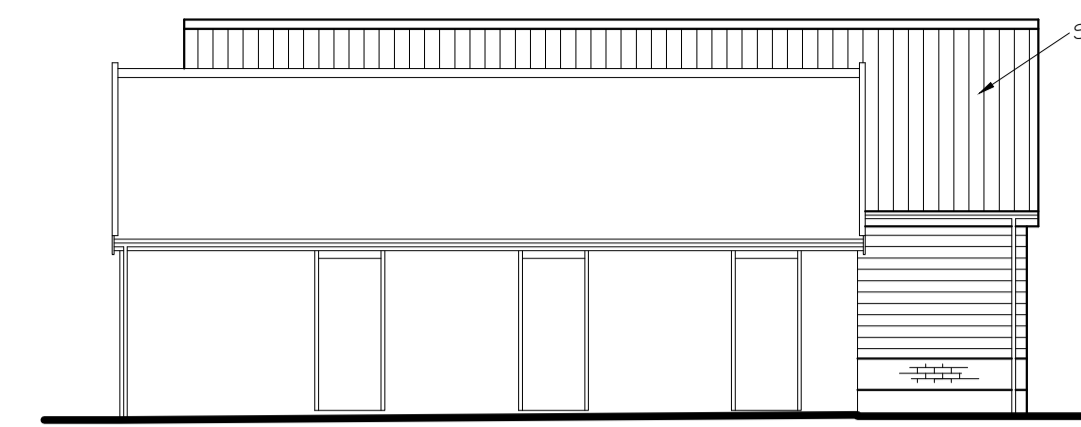
**STEEL BEAMS** - Provide steel beams in positions indicated on plan. Beams to bear on new steel bearing plates, masonry pier and new masonry walls where indicated on plan. Where pier indicated provide 225 x 450 x 225mm dp concrete padstone on new 450 x 225mm pier constructed in Class B engineering brickwork bonded into new masonry wall and built off widened foundation (size as indicated on plan). Where steel bearing plate indicated provide 100mm wide steel plate (thickness and length as specified in structural design).

**FIRE PROTECTION** - New steel beam over doors to be coated with intumescent paint to give 1/2 hour fire resistance applied in strict accordance with manufacturers instructions or clad with 2 no. layers of 15mm plasterboard with staggered joints. (Fire resistance not required to steel beams where supporting roof structure only).

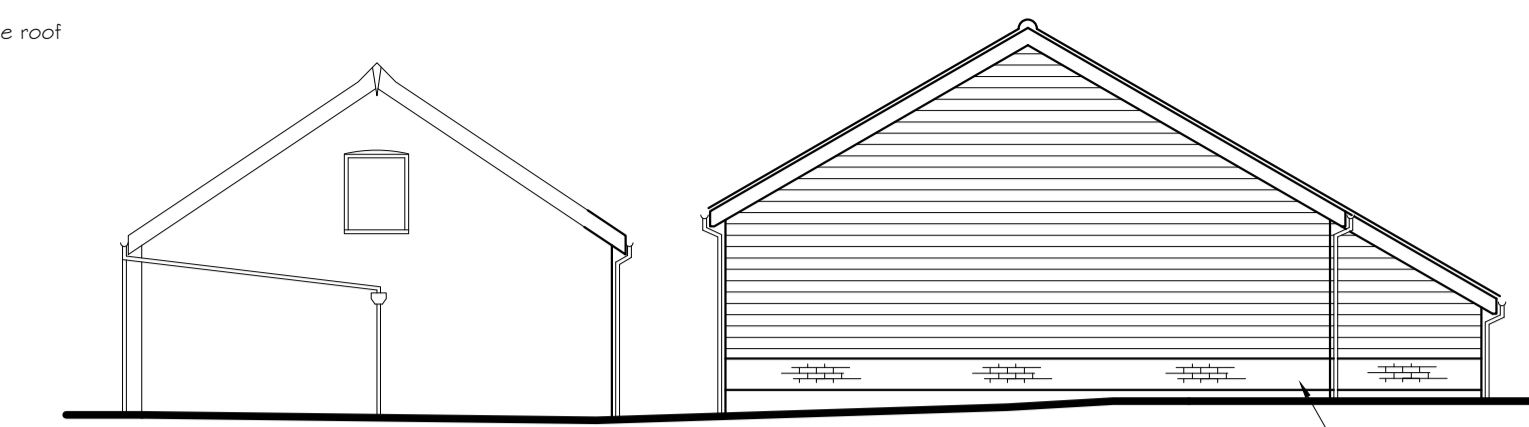
**SURFACE WATER DRAINAGE** - 125mm deep flow upvc guttering fixed to fascia board and discharging into new or existing existing upvc downpipes (positions as indicated on plan). New down pipes where indicated to discharge into rain water shoes connected to 100mm dia. upvc drains, bedded and surrounded in 150mm pea shingle, laid to 1:40 fall discharging by priority to 1.2m cubed soakaways positioned 5m from any buildings or highway. Size of soakaway to be determined by a percolation test in accordance with BRE Digest 365. Where the ground conditions do not permit the use of a soakaway then the surface water should then be discharged into the existing ditch behind barn with drain runs accessible for rodding purposes with the final layout discussed and agreed on site with Building Control.



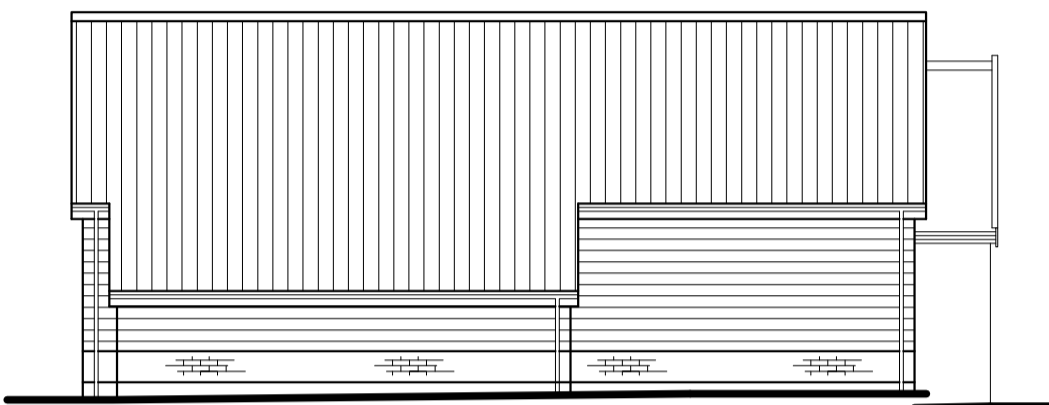
PROPOSED FRONT ELEVATION 1:100



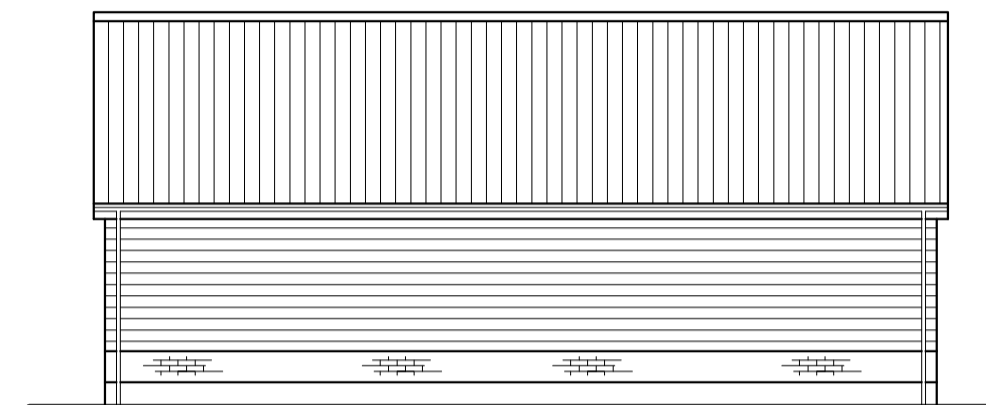
PROPOSED SIDE ELEVATION 1:100



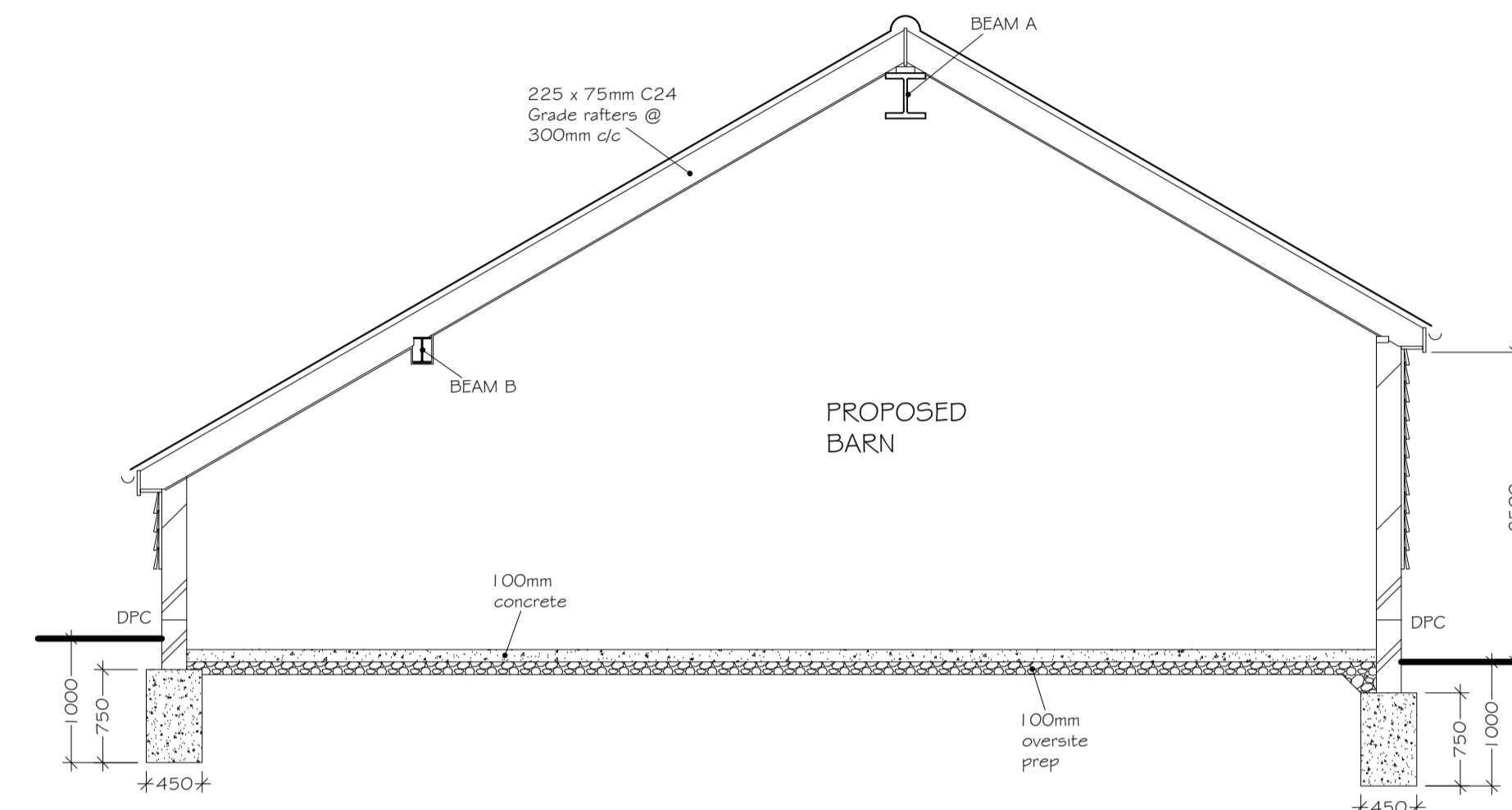
PROPOSED REAR ELEVATION 1:100



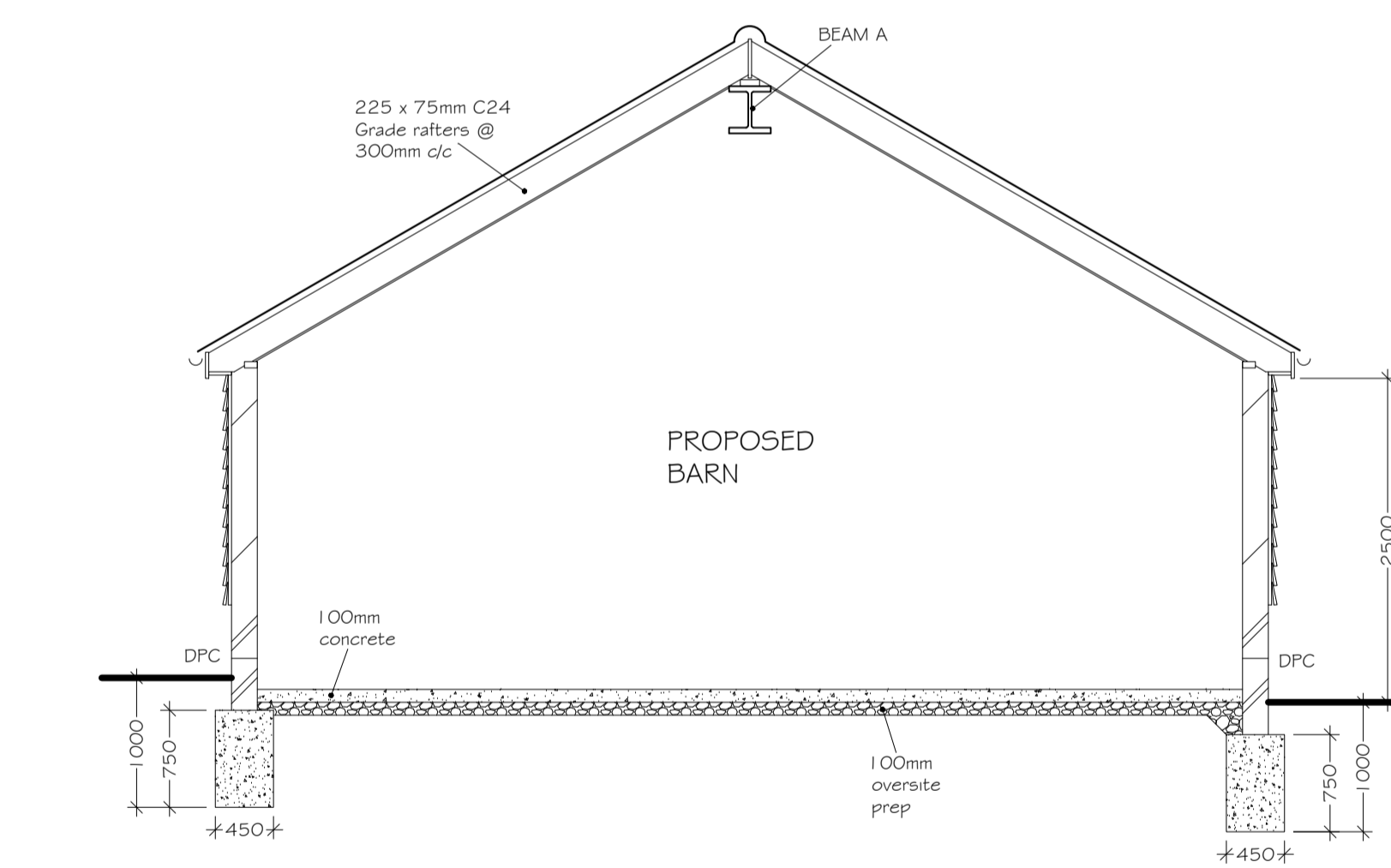
PROPOSED SIDE ELEVATION 1:100



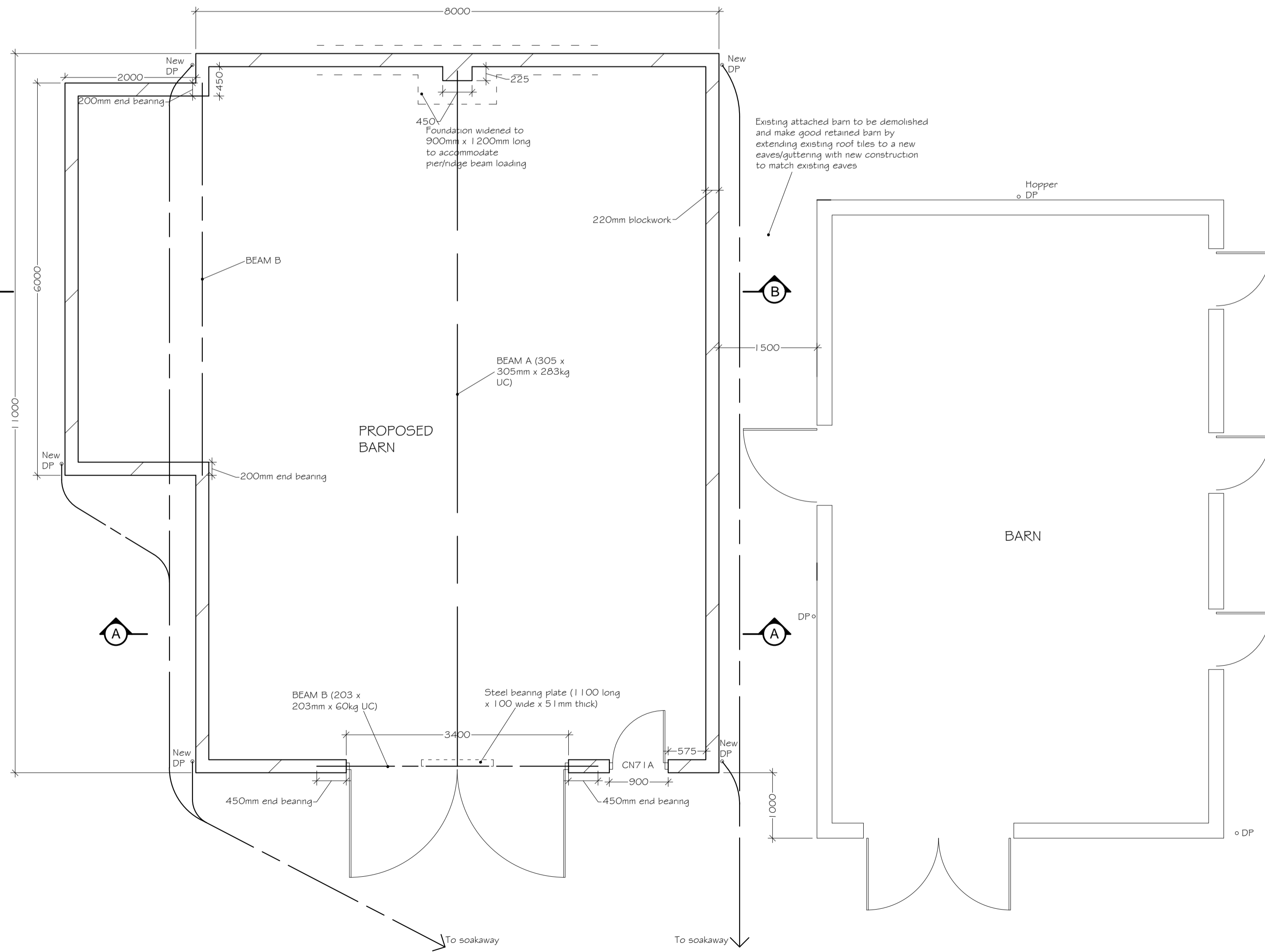
PROPOSED SIDE ELEVATION 1:100 (EXCLUDING EXISTING BARN)



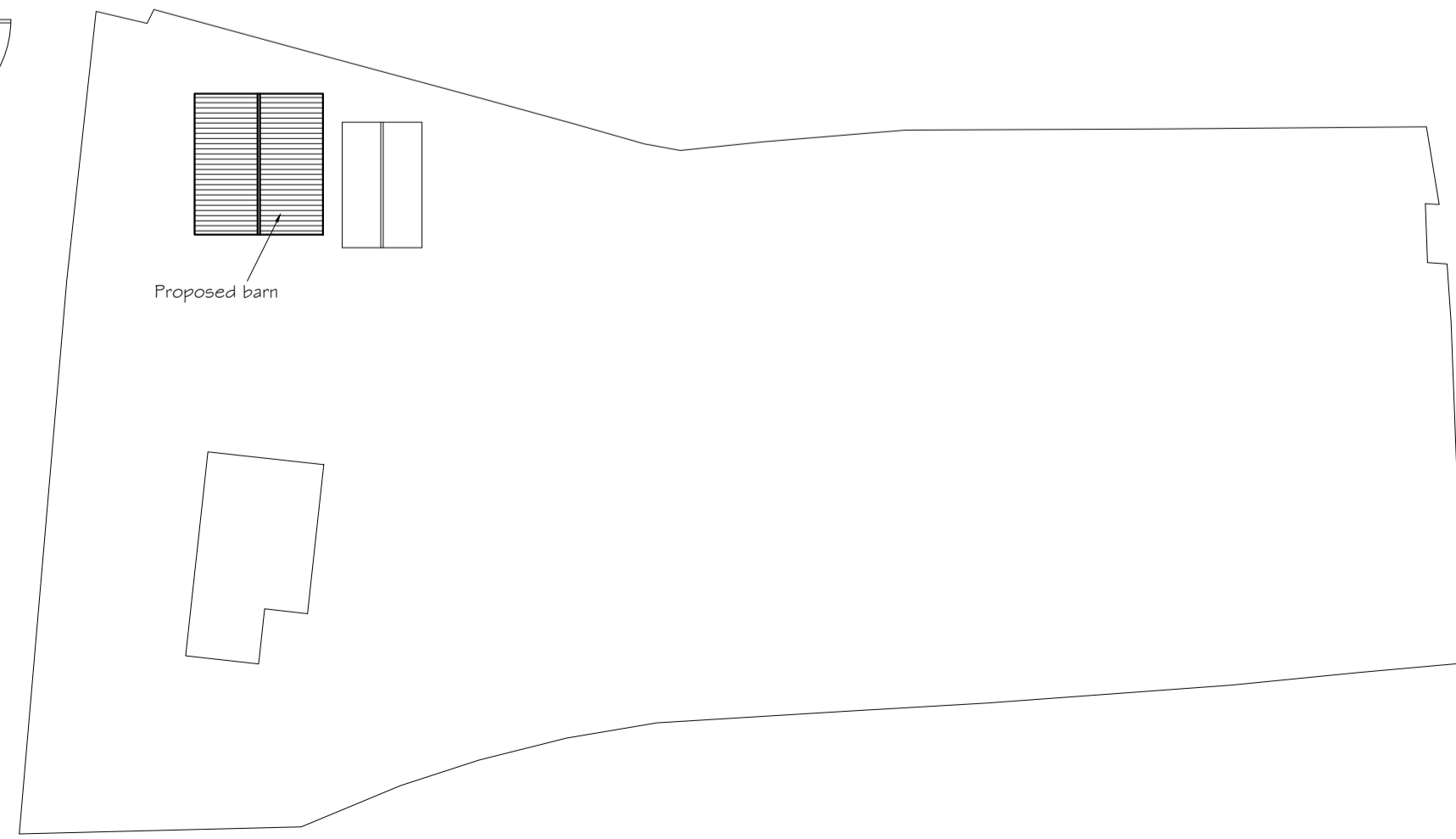
SECTION B - B 1:50



SECTION A - A 1:50



PROPOSED GROUND FLOOR PLAN 1:50



SITE PLAN 1:500

**ARCHITECTURAL BUILDING DESIGN SERVICES**

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Scale Bars

0 5m 10m 15m 20m  
1:500

0 1m 2m 3m 4m  
1:100

0 1m 2m  
1:50

Project	Proposed replacement barn		
Drawing Number	21/11/0021	Scales	1:50, 1:100, 1:500
Paper Size	A1	Revisions	B
Drawn	B,B		