



STRUCTURAL ENGINEER'S REPORT



Little Park Farm
Hurstpierpoint
West Sussex

Dated 23rd October 2018
Ref 18485 R01

1.0



2.0 Scope of Instructions

We have been instructed to prepare a Structural Engineer's survey report for the conversion of the existing barn at the subject property.

3.0 Address of Property

Little Park Farm
Marchants Close
Hurstpierpoint
West Sussex
BN6 9UZ

4.0 Date of Inspection

25th October 2018

5.0 Structural Engineer

Guy Macken

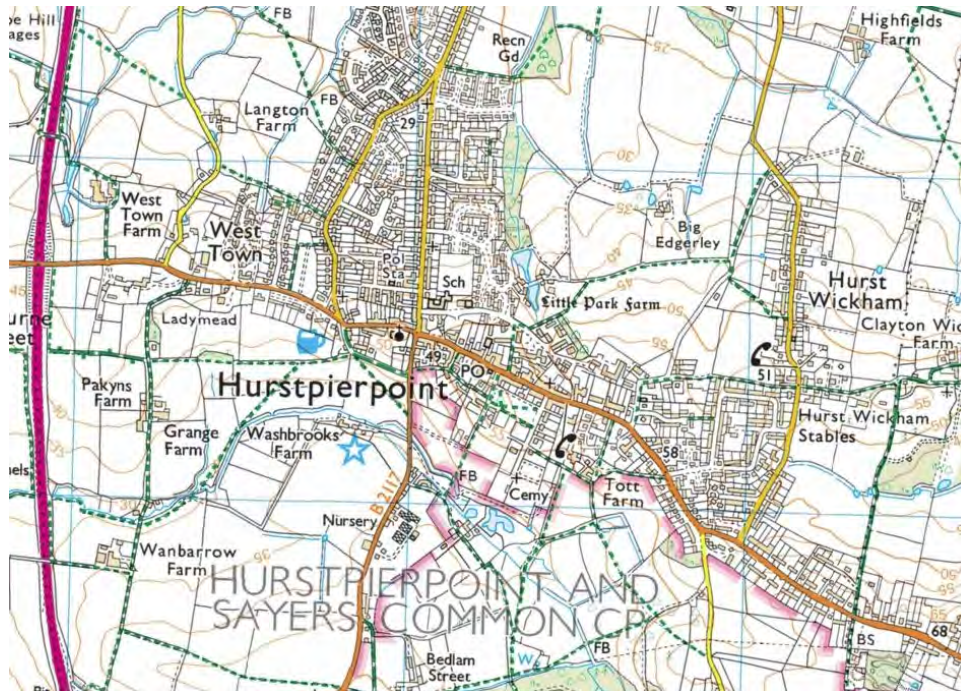
6.0 Company Details

Mitchinson Macken Ltd
Unit 1
100 North Road
Brighton
East Sussex
BN1 1YE
Tel. 01273 609742
Email: Info@mitchinsonmacken.co.uk

7.0 Introduction

This Report is based upon a visual survey of the steel framed barn structure with a view to conversion into four habitable dwellings. The structure of the columns and roof was generally visible, although foundations could only be seen in a few locations.

8.0 Site Map



9.0 Site Plan



10.0 Existing Structure

The barn is comprised of two halves with differing structure. The main part has taller columns and a curved lattice roof with corrugated steel cladding. The lower section has a mono-pitch roof on sloped steel beams. The floor of the latter has been excavated to create more headroom for farm vehicles.



10.1 Curved Roof



Curved metal lattice beams were spanning the roof at 4.5metre centres, supporting purlins and radial corrugated sheeting. The roof sheeting remains in good weathertight condition and continues to protect the roof beams. The beams and purlins appeared to be in reasonable condition with only surface corrosion observed. They should be satisfactory for use in the proposed scheme, with a light weight cladding roof system replacing the heavy steel sheets.

10.2 Side Roof



The side roof is laid to a gentle fall and has steel angle beams connected to the main columns of the barn. Corrugated roof sheets are laid to follow the fall of the roof. There is mild corrosion of the sheeting, the purlins and the primary beams, but this level of rust can be cleaned up and treated with anti-carbonation paint. The roof beams may require strengthening to meet the requirements of modern Building Regulations, but the original members can still be used.

10.3 Columns

The main part of the barn has steel columns sized 203x102x23 UB at 4.5metre centres. The lean-to part has smaller sections sized 152x89x16 UB. The columns are adequate for vertical and lateral loads in their current arrangement and will be further strengthened when the two open walls are enclosed in the proposed development.



The columns are generally in reasonable condition with only surface corrosion that can be cleaned and treated. Bolted connections at the top were intact.

Most columns were satisfactory where they rise from the concrete slab, but we noted that the base of one column had more advanced corrosion that will most likely require cutting away and splicing a new section onto the foundation.



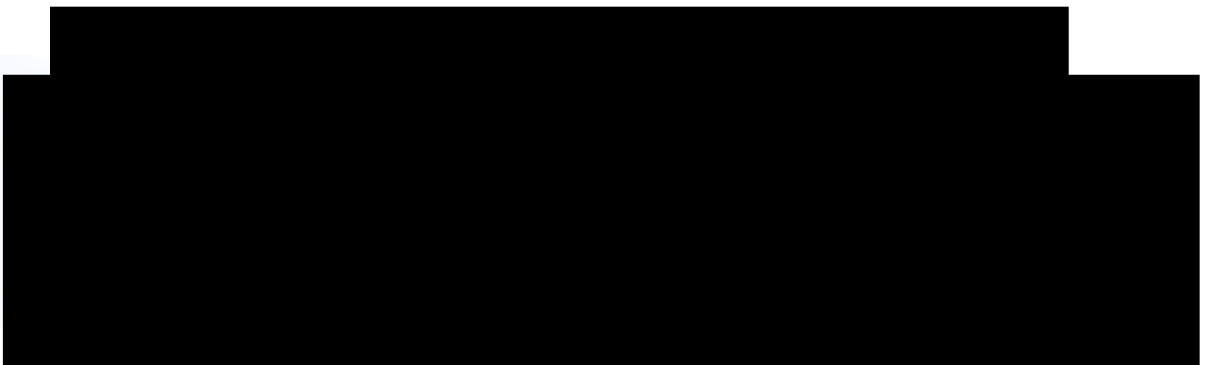


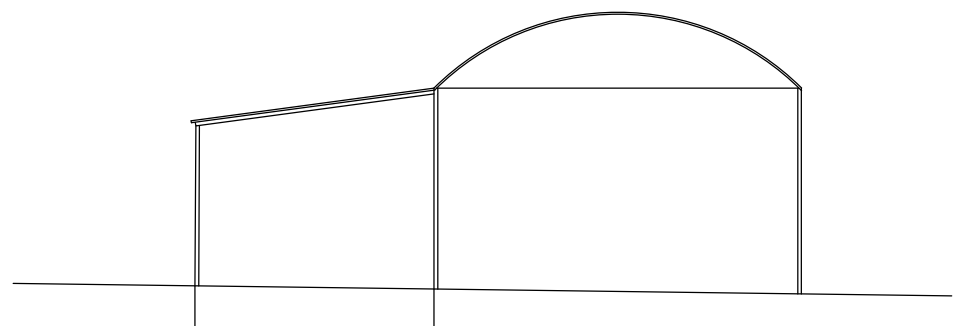
10.4 Cladding

The external walls and roof have corrugated steel sheeting. This is in reasonable condition given this is an open-sided barn in an exposed location. We would, however, expect the roof and walls to be brought up to modern standards of weather proofing and insulation suitable for a residential project.

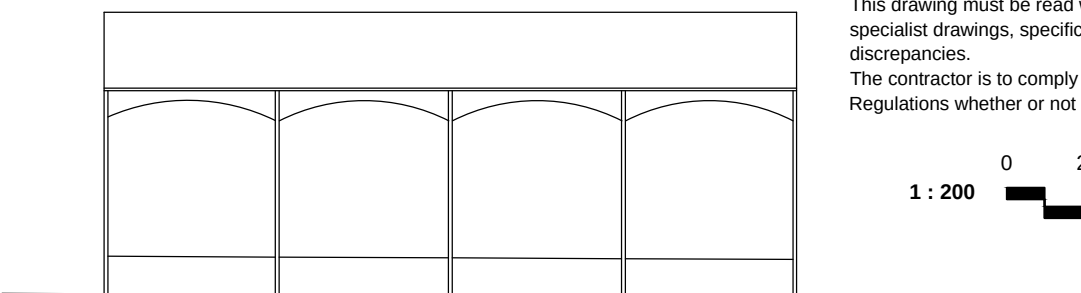
11.0 Conclusion

It is our finding that the existing farm building is in satisfactory condition and will only require localised repair work to support the proposed development of four dwellings.

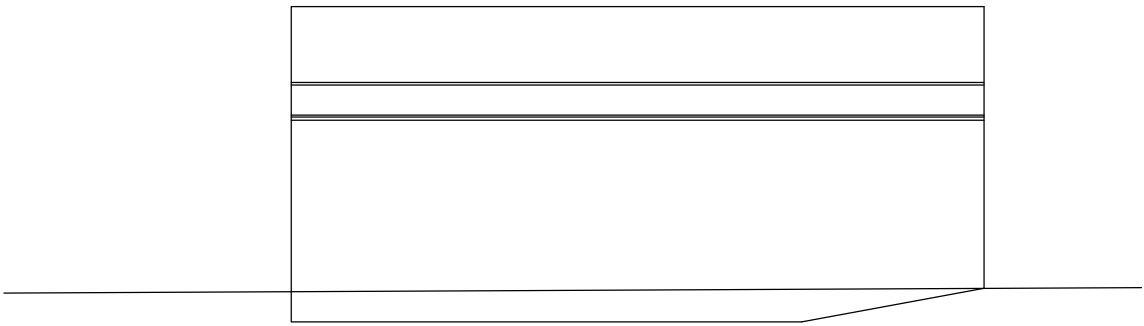




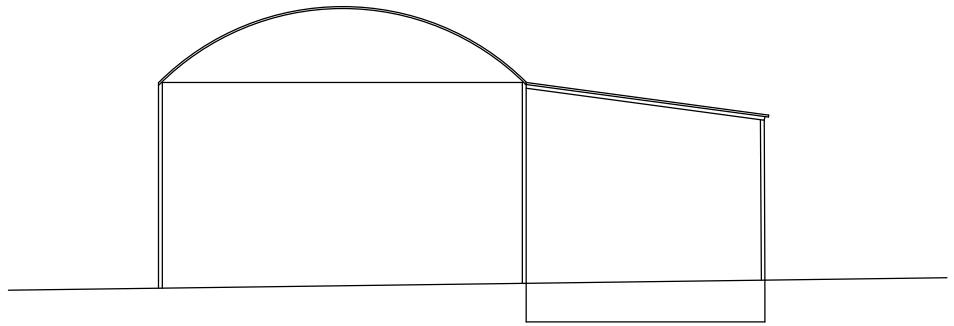
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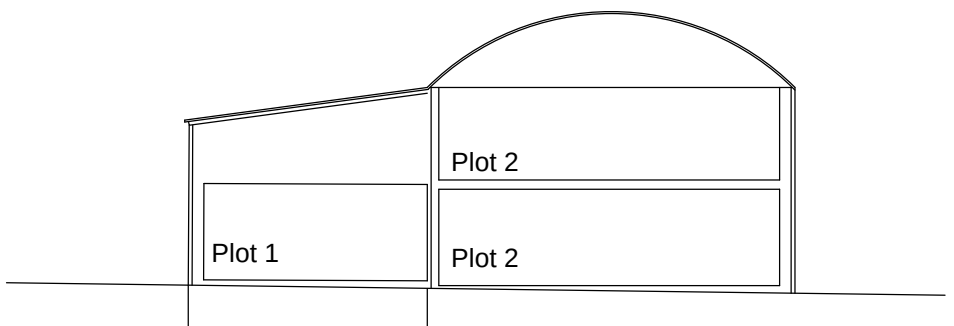
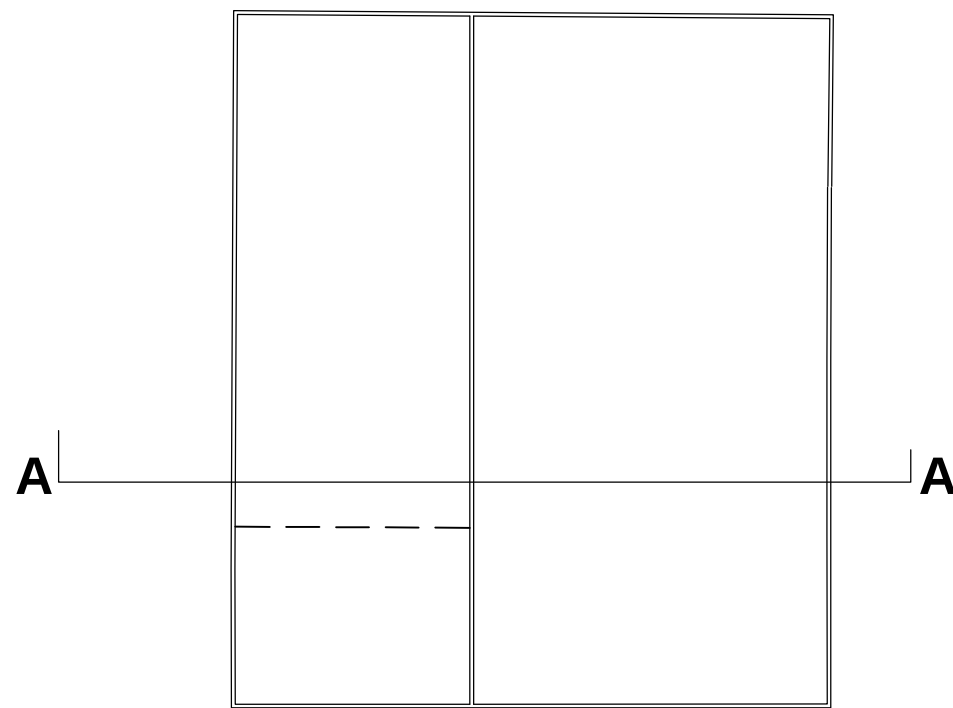
NORTH



SOUTH

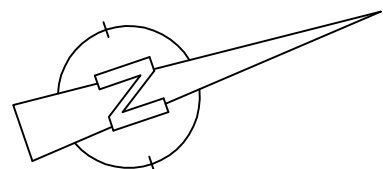


WEST



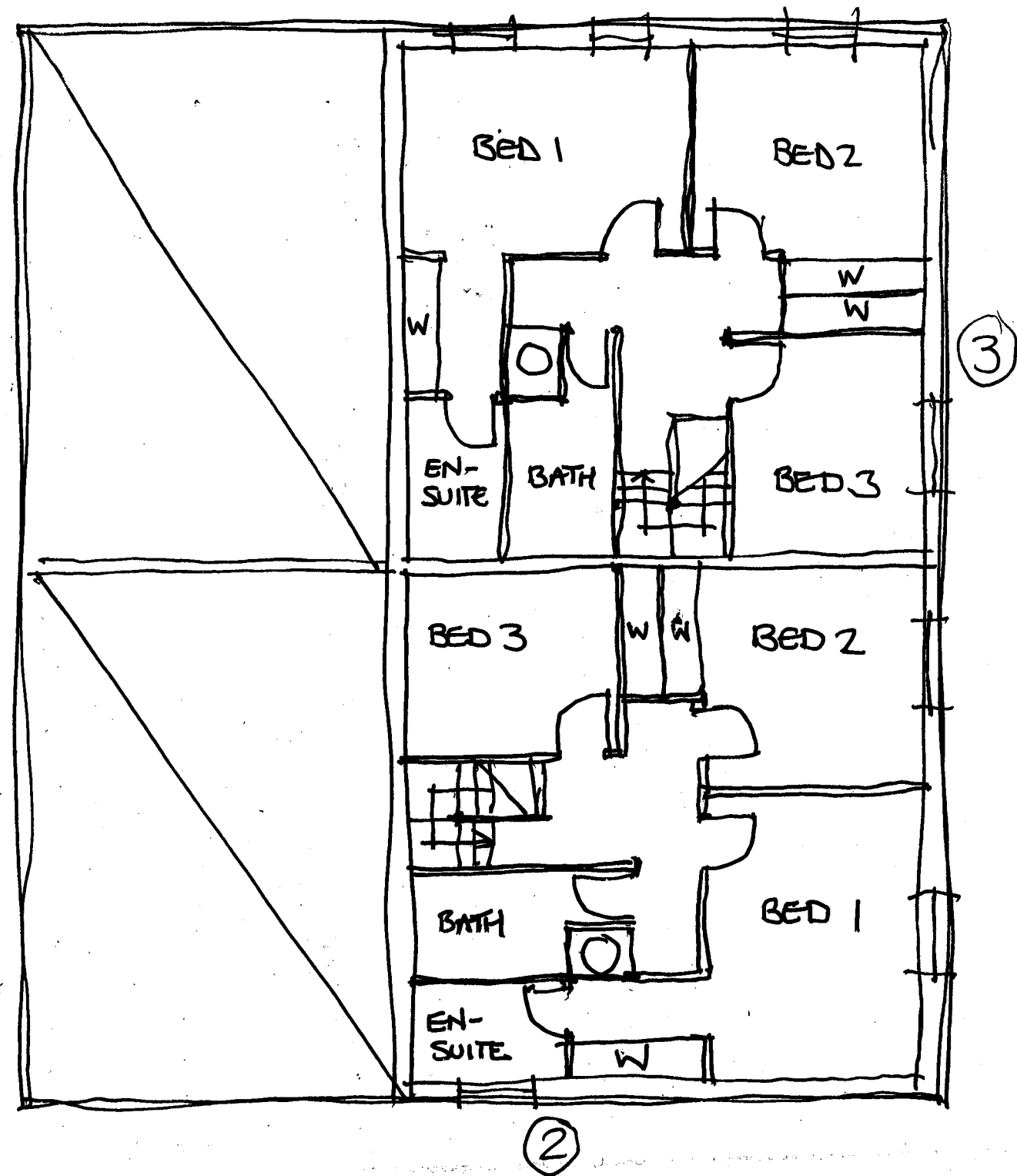
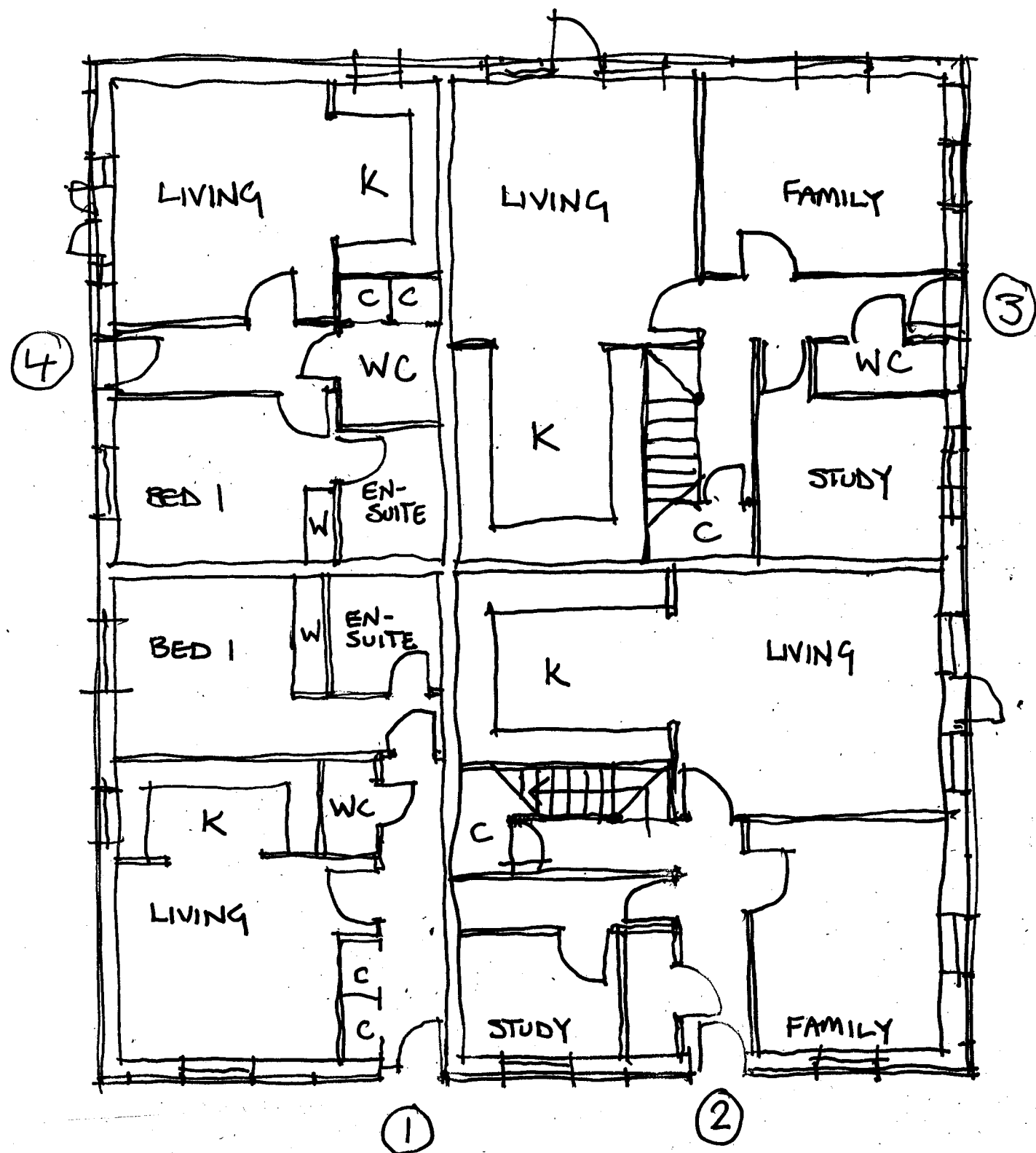
SECTION AA - PROPOSED

NOTE:
The contractor is to check all site dimensions and levels before work starts.
Do not scale from the drawing. Notify Architect of any discrepancies.
This drawing must be read with and checked against all structural and other specialist drawings, specifications and bills of quantities. Notify Architect of any discrepancies.
The contractor is to comply with all current British Standards and Building Regulations whether or not specifically stated on these drawings.



PRELIMINARY / PLANNING / BUILDING REGS				-	-	-	-
Rev.	Date	Description	By				

Client	Drawing Title Little Park Farm Existing Agri Barn	G W P Architects Fairfield House, Fairfield Road, Burgess Hill, West Sussex, RH15 8QB Telephone: (01444) 239019 Email: mail@gwparchitects.co.uk		Scale 1:200 @ A3	Drawing Number 18/120/sk18 © GWP Architects Ltd (UK) - 2018
Project Little Park Farm, Marchants Road, Hurstpierpoint				Date July 2018	
				Drawn nam	



Client	Drawing Title	G W P Architects	Scale	Drawing Number
Project	Little Park Farm	Fairfield House, Fairfield Road, Burgess Hill, West Sussex, RH15 8QB	1:100 @ A3	18/120/skPN01
Little Park Farm, Marchants Road, Hurstpierpoint	Conversion of Existing Agricultural Shed	Telephone: (01444) 239019 Email: mail@gwparchitects.co.uk	Date October 2018	© GWP Architects Ltd (UK) - 2018
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