



Your Environment

FLOOD RISK STATEMENT - LAND SOUTH-WEST OF 8 NEW BRIGHTON ROAD, EMSWORTH

For ER Construction Ltd

Your Environment

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1.0 Introduction

1.1 Background & Report Purpose

YourEnvironment (YE) was instructed by ER Construction Ltd (Quote No: 689, dated August 18th 2015) to prepare a Flood Risk Assessment at a site known as land south-west of 8 New Brighton Road, Emsworth, Hampshire, P010 7PS.

Planning approval has been obtained for the erection two detached houses and two Semi-detached houses, in four plots on a private drive south west of 8 New Brighton Road, Emsworth P010 7PS. The location is shown in [Appendix 1](#).

Calculations of surface water runoff arising from the proposed houses is required to discharge a planning condition as follows:

11 No development hereby permitted shall commence on site until a Flood Risk Statement explaining how the surface water will be managed and the approximate quantities involved for the 1 in 1 year, 1 in 30, 1 in 100 and 1 in 100 with 30% climate change has been submitted for approval by the Local Planning Authority. Should that FRS highlight the need for any additional on site drainage works beyond that shown on drawing No 101/15, or provision of Sustainable Drainage Systems, then details shall be submitted to and agreed with the Local Planning Authority prior to the commencement of development on site. Unless agreed otherwise in writing by the Local Planning Authority, the development hereby permitted shall not be brought into use prior to the completion of the implementation of all such drainage provision in full accordance with such plans and particulars as are thus approved by the Authority.

1.2 Proposed Development

The development is indicated on the plan in Appendix 1. To the east of the plots is a small ditch that receives the surface water drainage from houses in New Brighton Road which are also shown in Appendix 1. It is intended to discharge surface water from the proposed houses in the same way.

The access road is not part of this application and the driveways are permeable and not positively drained, as shown in Appendix 1. Only roof water is intended to be discharged to the ditch. Approximate areas of the proposed houses are provided in Table 3.1.

Table 0.1 Proposed Plan Areas (m²)

Site	Plan Area
Plot 1	114.3
Plot 2	91.5
Plot 3	91.5
Plot 4	119.4
Total Area	416.7

1.3 Runoff Calculations

The standard average annual rainfall for this location is 740 mm for the 1941 - 1970 period. The rainfall depths for different probabilities (return periods) at the site are shown in Table 4.1, derived from the Flood Estimation Handbook¹.

Table 4.1 Calculated Rainfall Depths (mm)

Duration	Return Period (years)	Current (mm)	With Climate Change (30% increase)
6 Hour	1	24.9	32.4
6 Hour	10	47.5	61.7
6 Hour	30	67.4	87.7
6 Hour	100	93.5	121.6

A six hours rainfall duration has been used in compliance with DEFRA technical standards². The current rainfall depths have been increased by 30% to provide a precautionary estimate of future rainfall as a result of climate change, following guidance in the NPPF³. 30% is the maximum increase required by the NPPF guidance and applies for buildings with an expected design life beyond 2085.

Table 3.1 shows that the proposed development has a total area of 416.7 m². The roof construction is normal, pitched design and therefore it is assumed that the roof drainage system collects 95% of the rainfall, the remainder largely lost through detention and evaporation. The runoff from the proposed development for the probabilities required by the planning condition is shown in Table 4.5.

Table 0.1 Runoff Volumes for Proposed Development

Duration	Return Period (years)	Runoff (m ³)	With Climate Change (30% increase)
6 Hour	1	9.85	
6 Hour	10	18.8	
6 Hour	30	26.7	
6 Hour	100	37.0	48.1

2.0 Conclusions

Planning consent for proposed houses on land southwest of 8 New Brighton Road, Emsworth is conditioned on the estimation of the volumes of runoff from the development.

Runoff from the roofs of the proposed houses will be led to a ditch adjacent to the site. Driveways will be permeable and runoff will not be collected from them.

¹ Centre for Ecology and Hydrology. Flood Estimation Handbook, 1999, revised 2006.

² Sustainable Drainage Systems Non-statutory technical standards for sustainable drainage systems. DEFRA March 2015

³ CLG (2012) Technical Guidance to the National Planning Policy Framework. Department for Communities and Local Government, March 2012

The volumes of runoff estimated to be produced by the houses has been calculated for the probabilities required in the planning condition.

3.0 Limitations

This report has been prepared by YE with all reasonable skill, care and diligence. The work undertaken to provide the basis of this report comprised a study of available documented information from a variety of sources.

The opinions given in this report have been dictated by the finite data on which are they based and are relevant only to the purpose for which the report was commissioned.

Information reviewed should not be considered exhaustive and has accepted in good faith as providing true and representative data with respect to site conditions. Should additional information become available which may influence the opinion expressed in this report, YE reserves the right to review such information and, if warranted, to alter the opinions accordingly.

It should be noted that any risks identified in this report are perceived risks based on the information reviewed.

The recommendations contained in this report represent our professional opinions. These opinions were arrived at in accordance with currently accepted industry practices at this time and as such are not guarantee that the sites are free of hazardous conditions.

This report has been prepared solely for the use of the named client, and may not be relied upon by other parties without written consent from YE. YE disclaims any responsibility to the client and others in respect of any matters outside the agreed scope of the work.

We trust this is sufficient for your requirements and should you have any questions please do not hesitate to contact the undersigned.

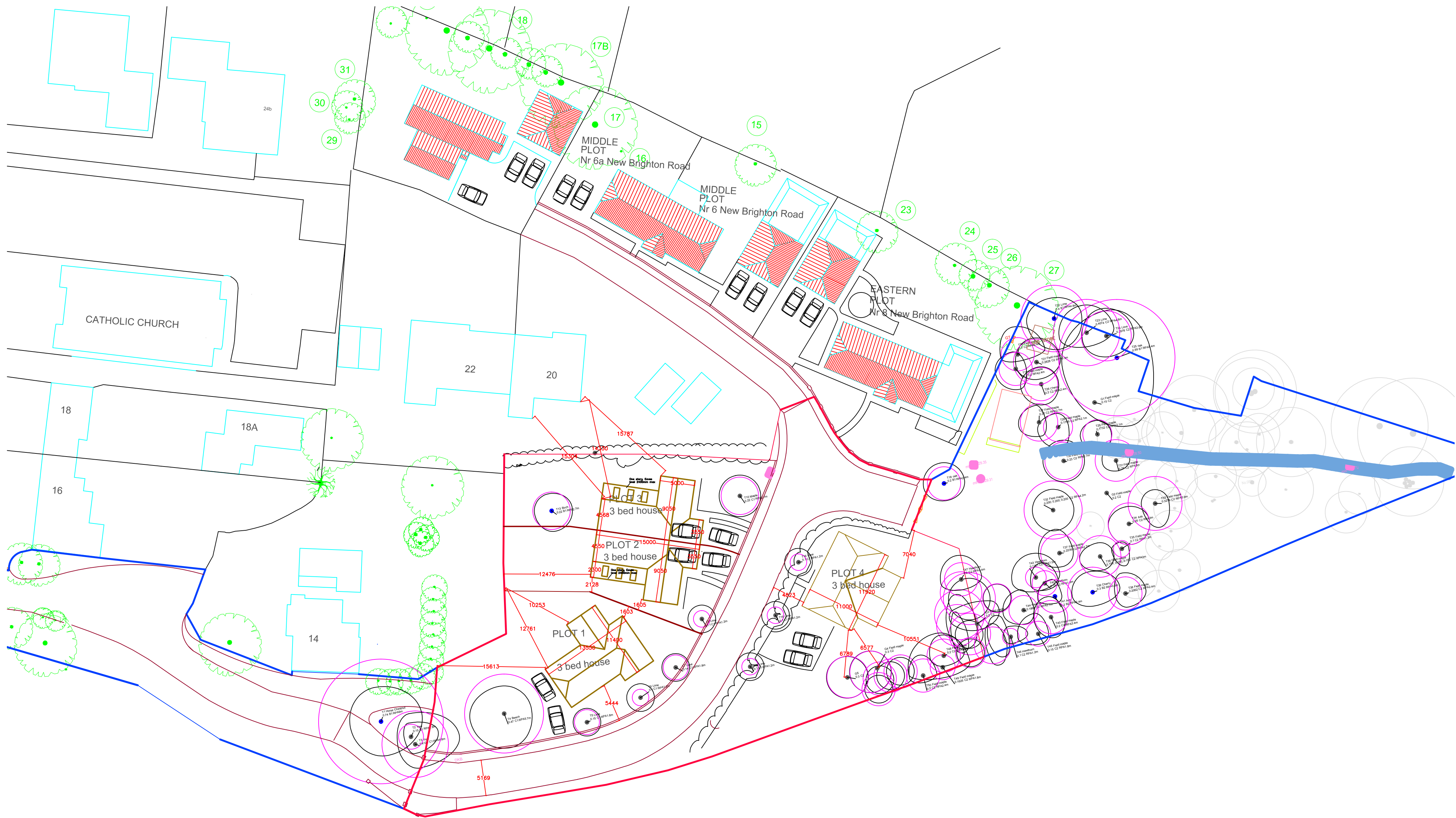
For YourEnvironment



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Director

APPENDIX 1: Proposed Redevelopment Plans





Revision	Date	

Date 14/04/2015	Drawn EM	checked by	date checked	Client MERCIO PLACE LTD	 6 New Brighton Road Emsworth Hampshire PO10 7PS TEL: 08450 450 862 www.erconstructions.co.uk
Scale 1/500	Drawing title Site plan 4units V3			Project 4No units	
Drawing No 101/52				Address 8 New Brighton Road Emsworth, Hampshire PO10 7PS	