



Peter Wade Consultancy
CONSULTING ENGINEERS



Peter Wade Consultancy
CONSULTING ENGINEERS

FLOOD RISK ASSESSMENT

REF:- PWC/2052

PROPOSED DEVELOPMENT

**60 Doncaster Road
Darfield
Barnsley**

Stockrail House
Waggon Lane
Upton
Pontefract
WF9 1FE

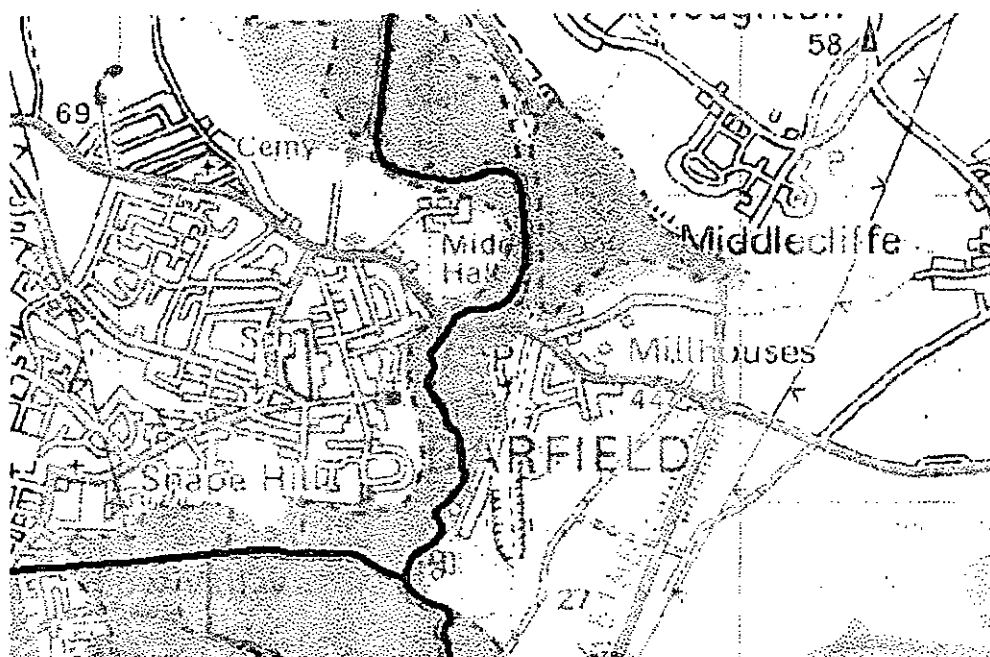
Tel: 01977 654300
Fax: 01977 647823

Email: mail@peterwadeconsultancy.co.uk

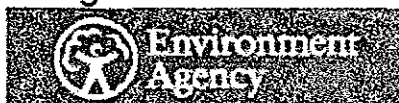


Observations

- 5 The relevant flood technical information has been obtained from the Environmental Agency database and is incorporated within this document.
- 6 The site, in part, is located in an area designated as within the extent of the extreme flood area. These outlying areas are likely to be affected by a major flood, with up to a 0.1 per cent (1 in 1000) chance of occurring each year.
- 7 The site slopes from 24.50m at the west to 28.00m at the east. It is to be noted that a significant part of the site is above the flood plane and houses located in this area may not need special measures.
- 8 The site is not within an area protected by flood defences.
- 9 The site and proposed buildings are not within 20 metres of a watercourse.
- 10 The occupant at the time reported that during the 2007 flood event that flood levels reached approximately 25.10m, flooding the existing property to a depth of 100mm.
- 11 The site is located in an area where the levels are not accurately defined and some negotiation will be required with the Environmental Agency to agree design levels. The Environmental Agency information is shown below which infers a 3m or more difference between the two flood levels. Although the presence of steep slopes and flood defences in the immediate proximity of the site makes severe flood level variations possible it is considered improbable that a difference of 3 metres can occur between the two flood plane levels. Consequently some localised revision of the Environmental Agency boundaries may be required. This can only be done after making the planning application.



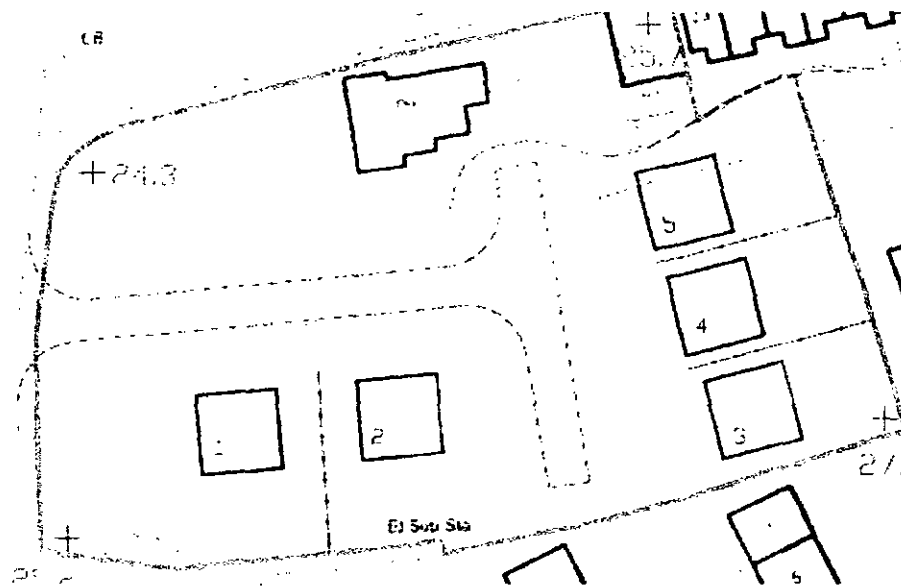
Flooding from rivers or sea without defences
Extent of extreme flood
Flood defences
Areas benefiting from flood defences



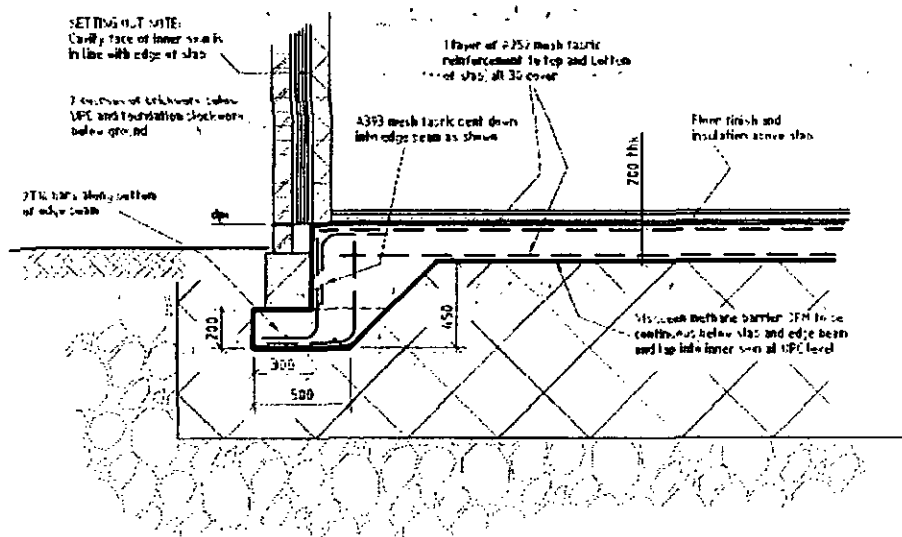
Environment Agency copyright and database rights 2010.
© Ordnance Survey Crown copyright. All rights reserved. Environment Agency, 100026380,
contains Royal Mail data © Royal Mail copyright and database right 2010.

Recommendations

- 12 The site is sloping and subject to agreement in respect of flood levels with the Environmental Agency it should be possible to develop the site with the proposed 5 plots on a layout as shown below...



- 13 Notwithstanding the above precautions may be required to protect the proposed buildings and habitants from the effects of flooding. In this event the following should be adopted.
- 14 The buildings should be constructed with the ground floor level a minimum of 400mm above the 1 in 1000 flood level giving a slab level of 25.90m.
- 15 The ground floor should be a ground bearing concrete slab, to exclude any voids below ground level.



Typical ground slab and ground edge beam details

- 16 Cavities to external walls should be mortar filled to the level of the floor slab.
- 17 All service ducts should be of a continuous ducting system terminating a minimum of 600mm above ground floor slab level.
- 18 To protect the ground floor and site generally from surcharging of the foul drains during flooding, a back-flow stop valve is to be fitted to the foul drain branch connection. The valve is to be located in an accessible position to allow for maintenance.
- 19 To protect the ground floor and site generally from leakage from flooded foul drains during flooding all inspection chamber cover levels should be not less than 25.90m.
- 20 To comply with the Water Resources Act 1991 and local byelaws, prior written consent must be obtained from the Environmental Agency before the proposed works commence.

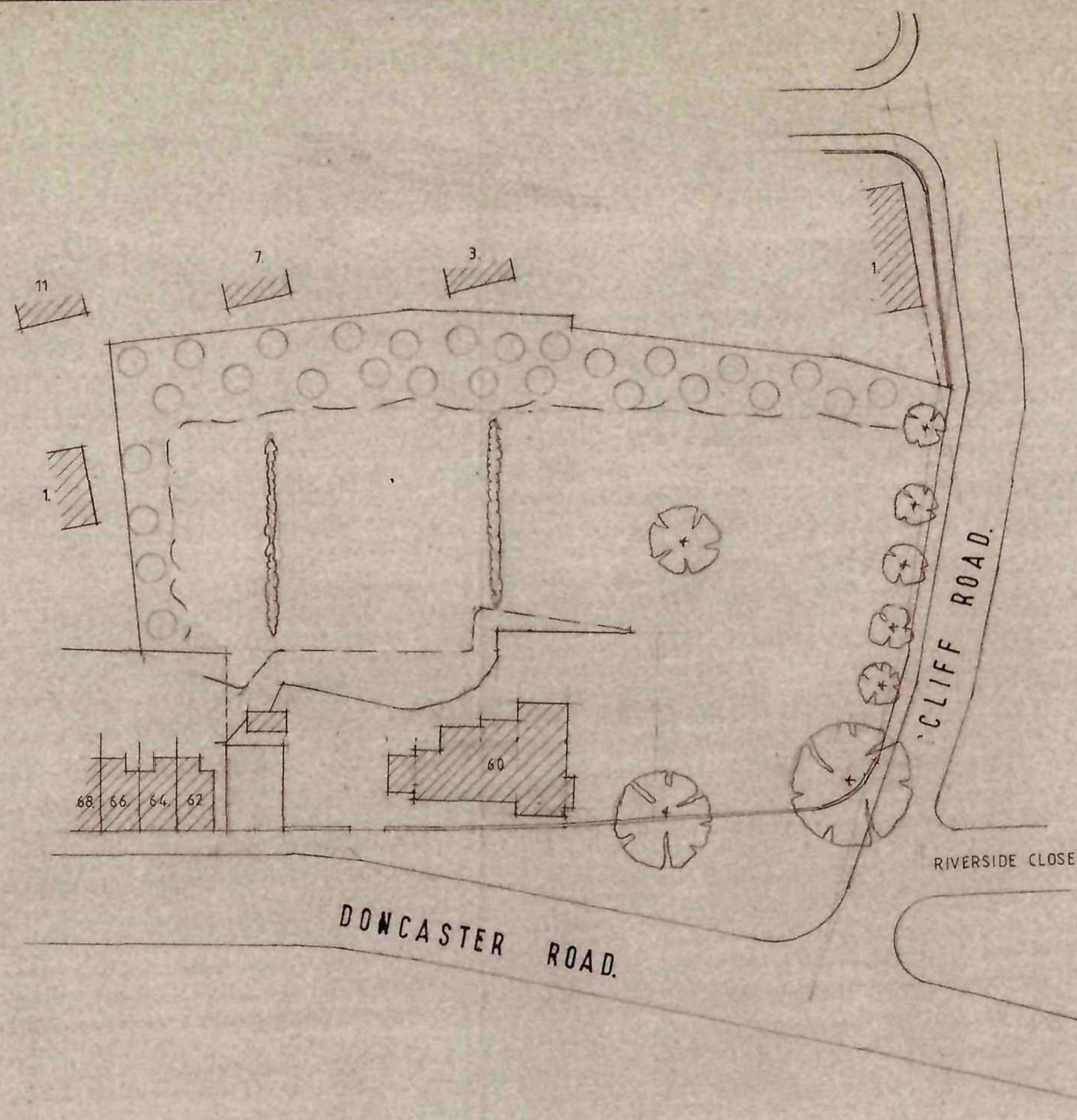


- 21 The area generally slopes from the east as can be seen above. The land immediately to the east is outside of the flood area. The building occupiers can easily evacuate the site along the eastern boundary which rises consistently away from the flood area.
- 22 The building occupiers are to be advised to prepare a flood emergency plan as recommended in the Environmental Agency guide book 'Preparing for a flood'.

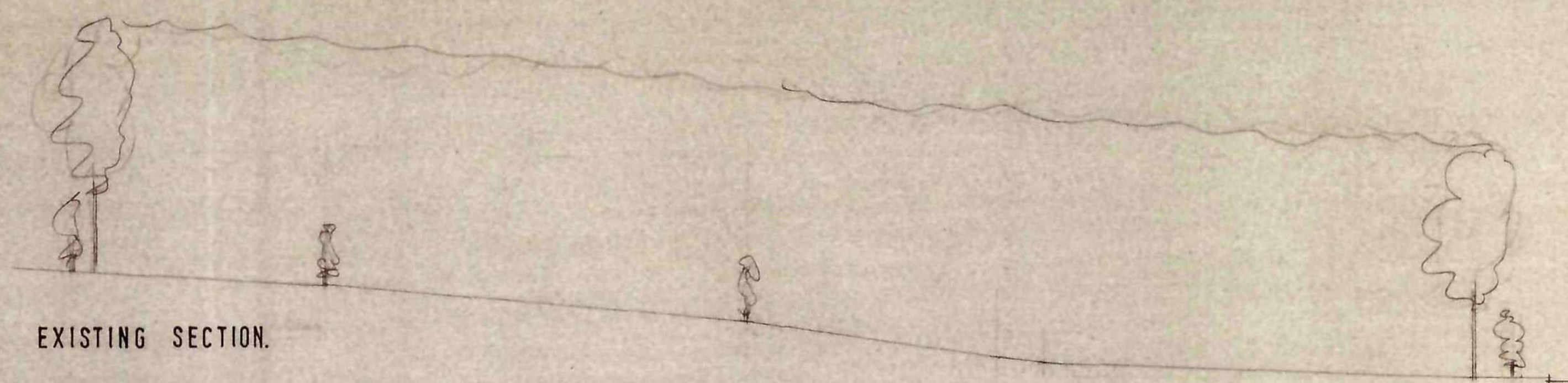
P Wade B.Tech (Hons), C.Eng., MICE, MStructE.
07.10.2010

NB. This report is copyright of PWC and is prepared for the sole use of the named Client and must not be used or duplicated either in whole or in part without written approval from PWC.

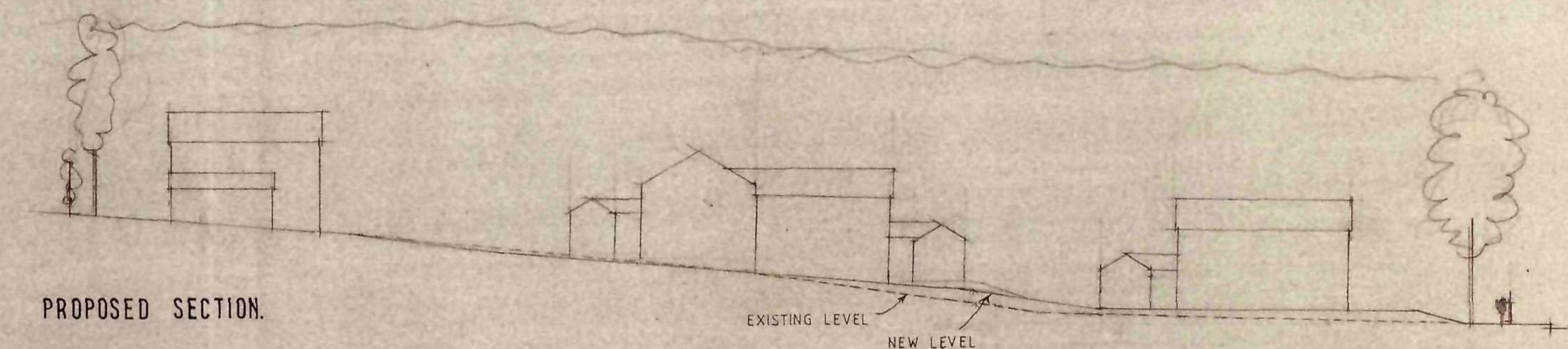
EXISTING.
BLOCK PLAN.



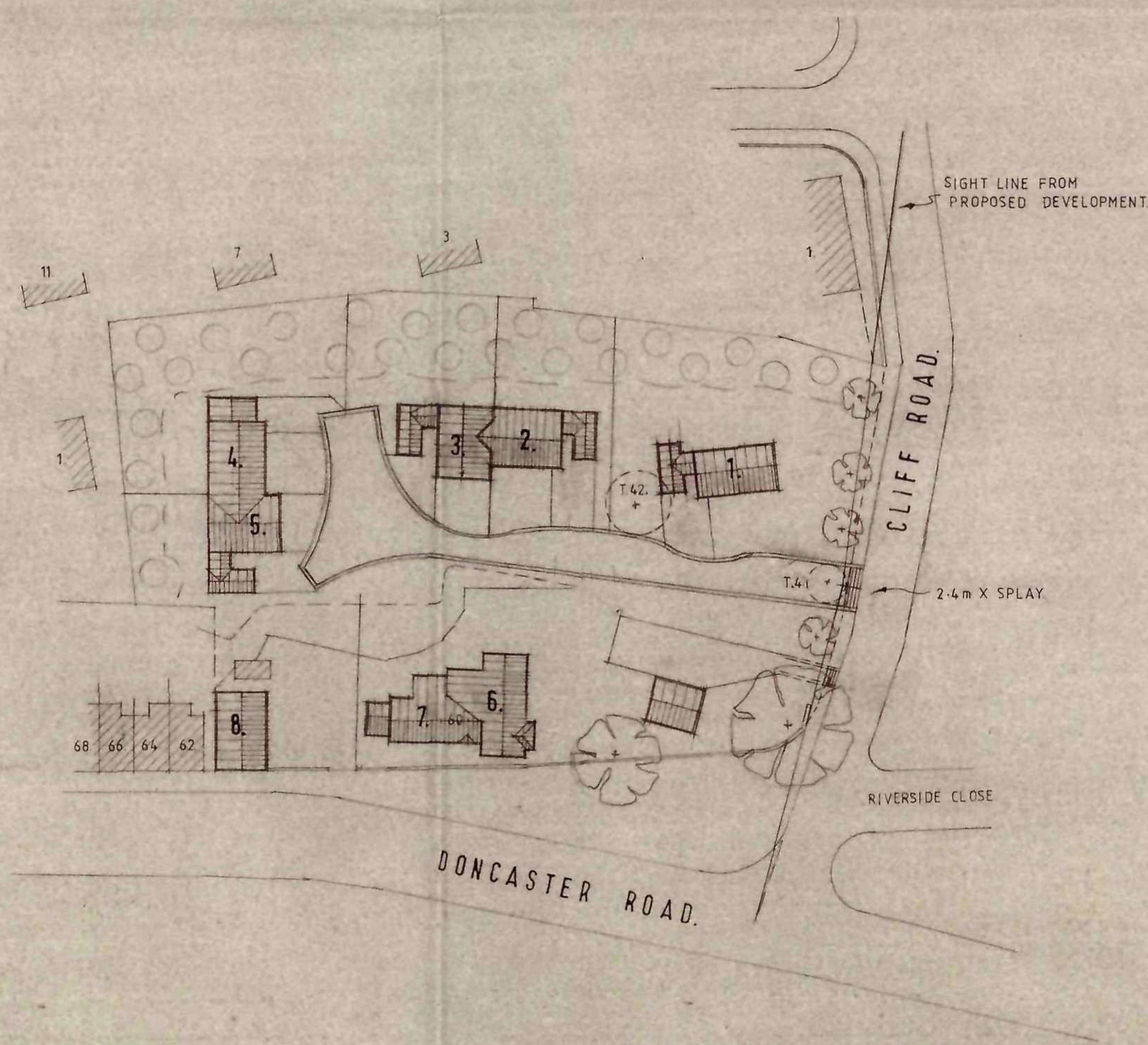
EXISTING SECTION.



PROPOSED SECTION.



PROPOSED.
BLOCK PLAN.



NOTES
The contractor is to check and verify all building and site dimensions, levels and sewer invert levels at connection points before tendering and work commences.
This drawing must read with and checked against any structural or other specialist drawings provided.
The contractor is to comply in all respects with the current building regulations whether specifically stated on these drawings or not. Internal dimensions exclude plaster thickness.
Do not scale off this drawing.

5no New Dwellings.

1 no. Conversion of out building to dwelling (using existing access)

1 no Conversion of dwelling into two units.

4-6m PRIVATE ROADWAY FOR FIRST 10-0m THEN VARIABLE WIDTHS.

HEDGE IN SPLAY AREA REDUCED TO 1.0m
FENCE REPLACED AND REBUILT OUTSIDE SPLAY AREA.

© Copyright

Job Title	OUTLINE.		
Client	MR G. GREIGHTON		
Drawing Title	LAYOUT.		
Drawn By	Date	Scale	
I.W.	DECEMBER 10	1:250 1:500	

**IAN WILLIAMS
DESIGN AND BUILD**
FAIRFIELDS, CHURCH ROAD,
ALTOFTS, W. YORKS WF6 2NU
Telephone: 01924 893311

DRG. No. 66. 01. 07. 10.