4th April 2014

Ms J Meneaud
Development Control
Gloucester City Council
Herbert Warehouse
The Docks
Gloucester
GL1 2EQ

Dear Ms Meneaud

258 Cheltenham Road, Gloucester
Proposed erection of 1 dwelling, and parking for 258 Cheltenham Road – revised scheme (12/00953/FUL)

Please find enclosed a full planning application for the erection of 1 dwelling at the above site, along with parking for the existing dwelling. The application for full planning permission includes:

- The application forms (submitted electronically)
- Site location plan (submitted electronically)
- Proposed floor plans and elevations (submitted electronically)
- Site block plan (submitted electronically)
- Proposed street scene (submitted electronically)
- Planning, Design and Access Statement (submitted electronically)
- Flood Risk Assessment + Addendum (submitted electronically)
- No application fee is required as this application is submitted within 12 months of the recent appeal decision

This submission follows application 12/00953/FUL which was dismissed on appeal in October 2013. The sole reason for dismissing the appeal related to the lack of a Sequential Test. This proposal therefore seeks to overcome this single refusal reason, with all other aspects of the scheme remaining the same as previously submitted.

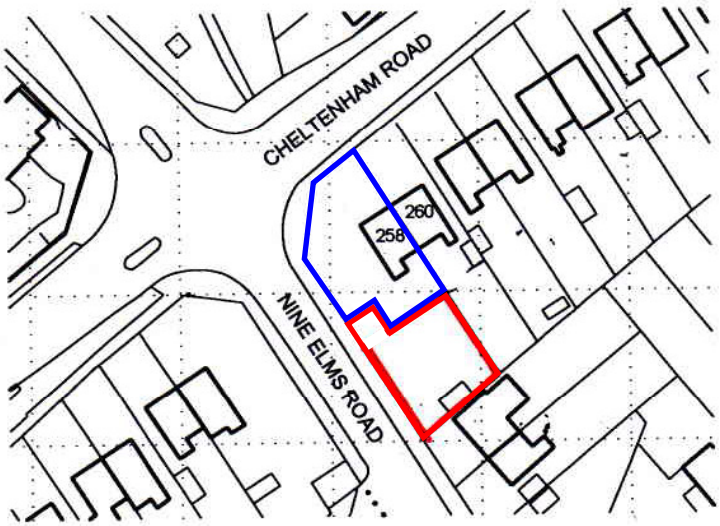
The Planning, Design and Access Statement, together with the accompanying reports, provide information on the scheme and demonstrate how the additional information submitted removes the need to provide a Sequential Test.

I therefore trust you will find this to be an entirely appropriate scheme for this site, and please contact me if you require any further information at any stage of the application process.

Yours sincerely

[redacted]

Simon Firkins **MRTPI**



Site Location Plan Scale 1:1250

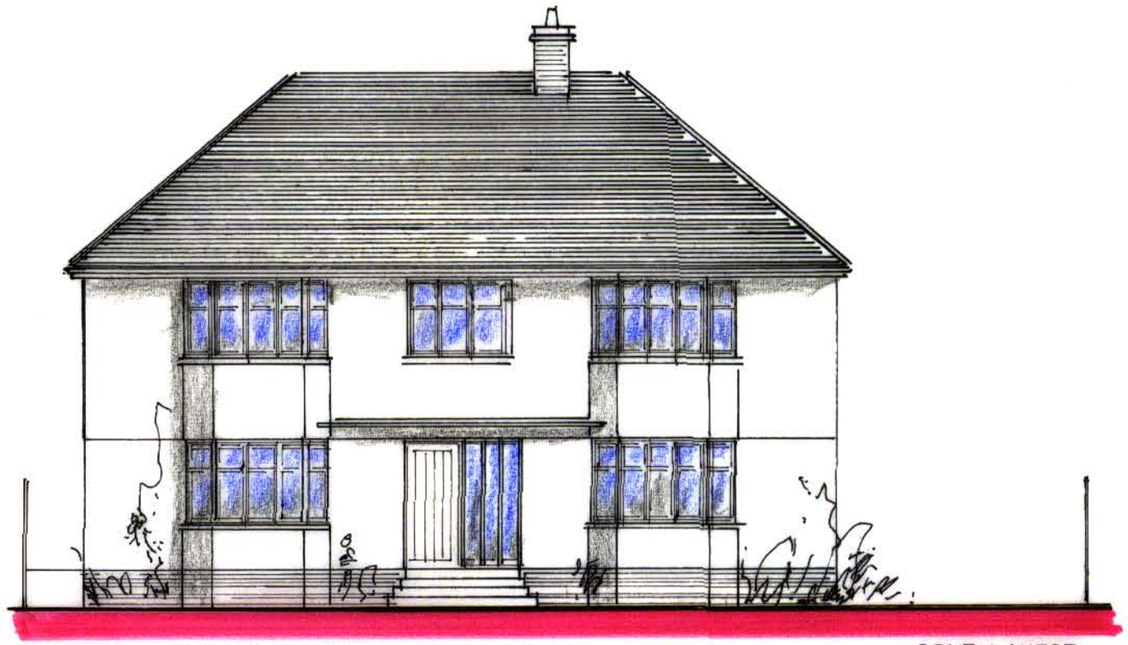
0 10 20 30 40 50

258 Cheltenham Road. New Dwelling.

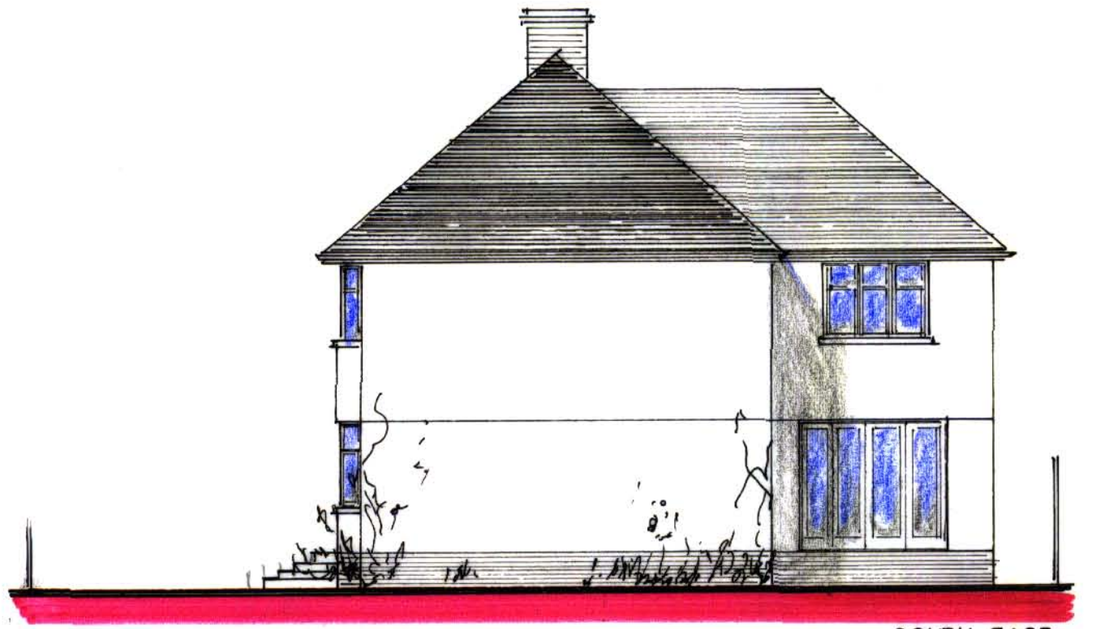
Location Plan
Scale 1:1250 @ A4

1577.8

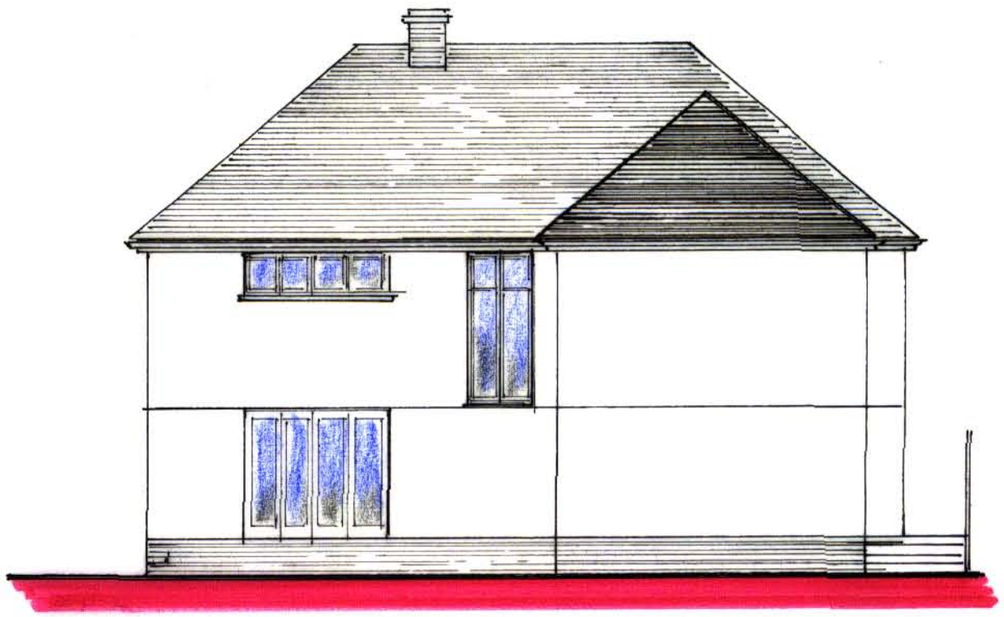
[redacted]



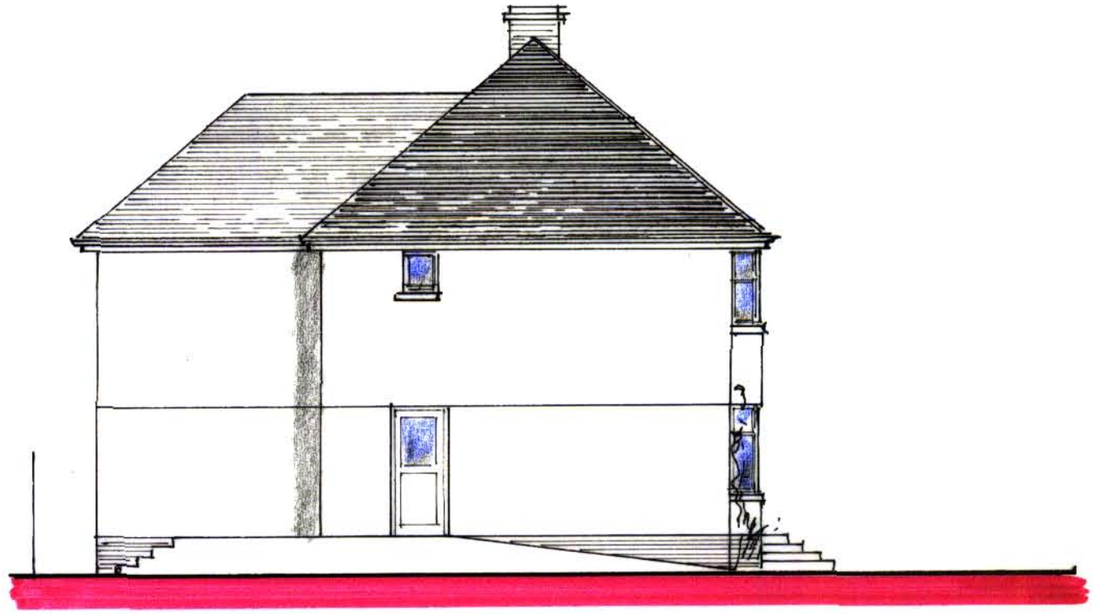
SOUTH WEST



SOUTH EAST



NORTH EAST



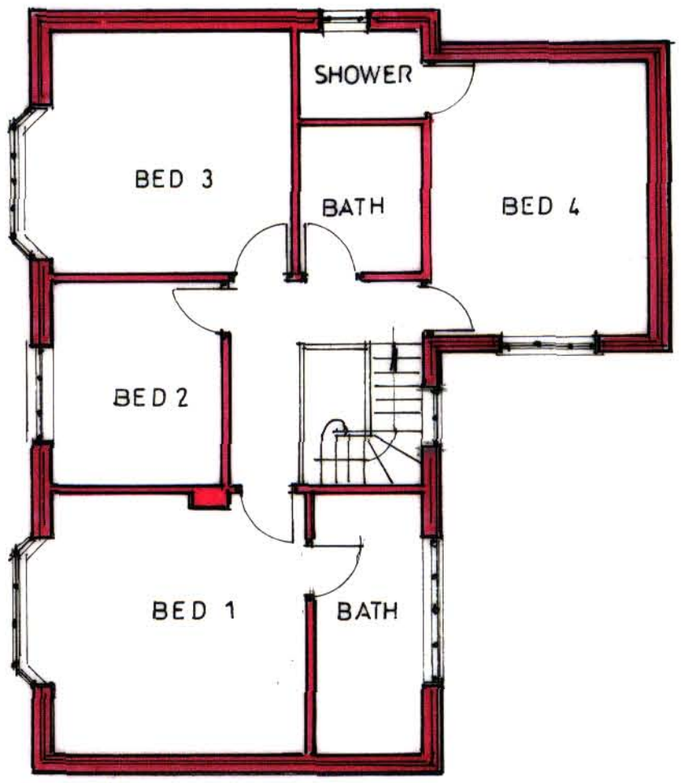
NORTH WEST

258 Cheltenham Road. New Dwelling.

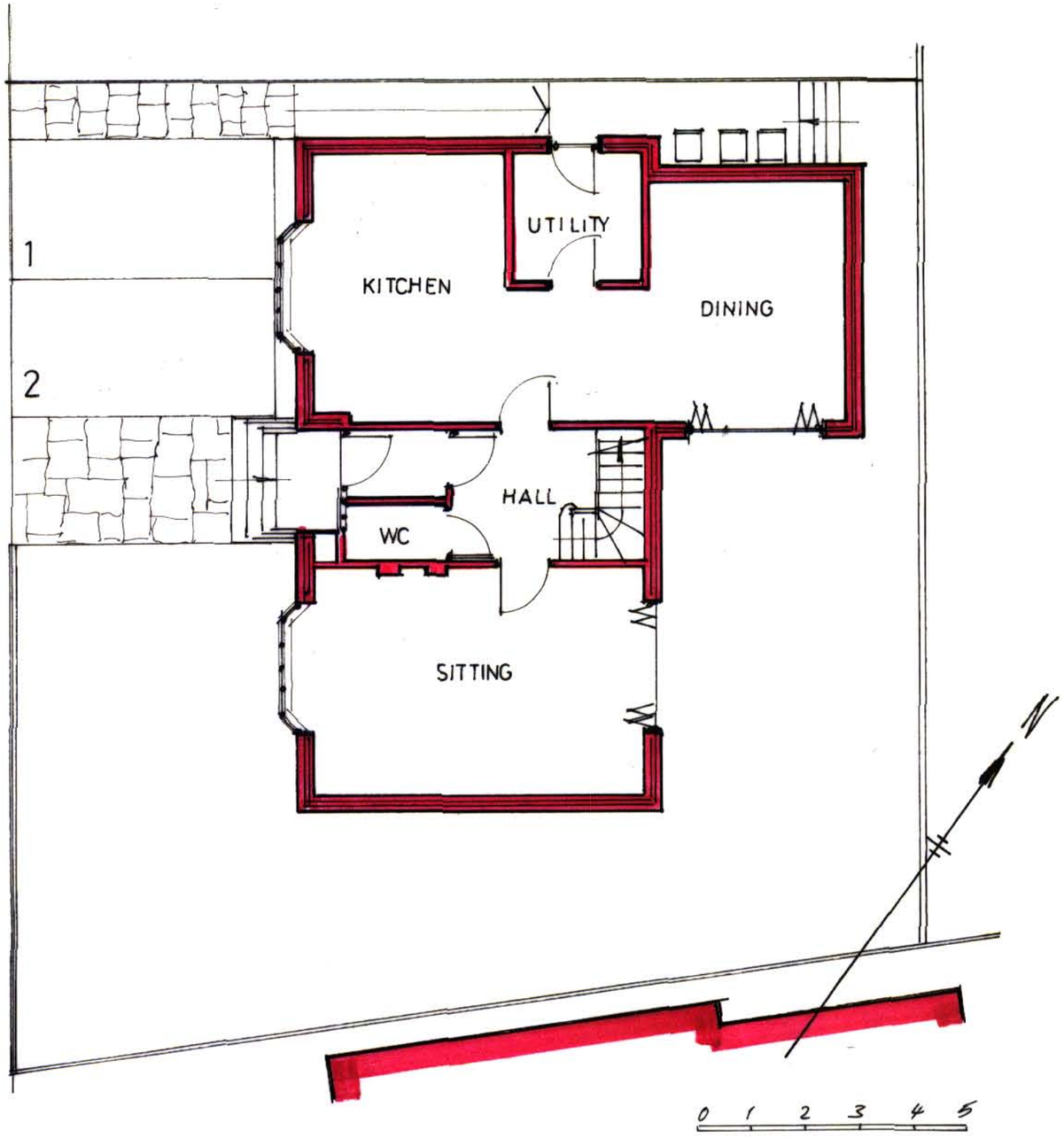
Elevations
Scale 1:100 @ A3

1577.5

[redacted]



FIRST FLOOR



GROUND FLOOR

258 Cheltenham Road. New Dwelling.

Floor Plans
Scale 1:100 @ A3

1577.4

[redacted]

258 Cheltenham Road. New Dwelling.

South West Elevation
Scale 1:100 @ A3

1577.7

[redacted]

SFPLANNING

1 October 2020

Ms J Meneaud
Development Control
Gloucester City Council
Shire Hall
Gloucester
GL1 2TG

Dear Ms Meneaud

Planning Application reference 14/00410/FUL
258 Cheltenham Road, Gloucester GL2 0JN

I write to confirm that on behalf of our client we wish for the proposed description of this application to now be amended and considered as follows:

'Proposed erection of one self-build dwelling with parking at 258 Cheltenham Road'.

This letter is an addendum to the previous information and supporting documents that have been submitted over the course of this application and seeks to outline why a self-build dwelling[1] in this location is to be supported.

There is a legal duty placed on the Local Planning Authority (LPA) to provide self-build housing to meet the need established by the Council's self-build register. Under delivery of custom or self-build plots means the established social and economic needs of the area are not being met. This engages paragraph 11 criterion d) of the National Planning Policy Framework (NPPF).

The self-build register for the Council has expanded in the last 12 months such that it is clear the need is not being met. In December 2019 the number of individuals registered was reduced from 59 to 55 as four individuals indicated they no longer wished to remain on the register. It is unclear if the 4 entries were removed because their need had been met. The updated register was published in August 2020 which showed registered demand had increased to 67, which means that 12 entries have been added in around 8 months.

In terms of the demands being met, we are not aware of any planning permissions for self-build dwellings in Gloucester City being issued and it is clear the register is still growing, as the number of new entries are vastly exceeding the number of entries removed.

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[1] Please note that self-build dwellings are also known as custom-build dwellings so any reference to that term means the same thing.

[redacted]

During the course of this application, the current NPPF (revised in 2019), Planning Practice Guidance and the Self-build and Custom Housebuilding Act 2015 (as amended) have come into effect and have increased the emphasis for planning and delivering sites, specifically for those wishing to build their own homes.

The Housing and Planning Act 2016 inserted a legal duty on local planning authorities to *"give suitable development permission in respect of enough serviced plots of land to meet the demand for self-build and custom housebuilding in the authority's area arising in each base period".* The Act confirms that the demand for self-build and custom housebuilding arising in an authority's area is the demand as evidenced by the number of entries added to the register kept by the authority.

As such, the Act places a legal duty on Gloucester City Council to grant as many planning permissions within a base period of 12 months running from the day the Act came into force (31st October), and any subsequent additions to the register for the following base years. It therefore follows that the demand for self-build dwellings and how the Council is complying with the duty to grant suitable development permissions to meet that demand is a material consideration when determining schemes which will provide self-build dwellings. Appeal precedent supports the view that the provision of this type of housing is a significant material consideration, particularly when there is an identified lack of supply of self-build homes.

Significant positive weight should therefore be given to the delivery of self-build dwellings, particularly as the Council isn't able to adequately demonstrate that sufficient development permissions for self-build dwellings are being approved. This significant positive weight should be judged alongside the fact that no objection has been raised previously by the LPA with regards the scale, layout, form and design of the submission. Furthermore, no objection has been raised by the Environment Agency (subject to condition) nor from the Local Highways Authority for the erection of a dwelling on this serviced plot of land. This view was also endorsed within the 2013 Appeal Decision for an identical proposal on this site which was ultimately dismissed by the Inspector due to insufficient evidence with regards to potential flood risk, not on any design, amenity or highway safety grounds.

This application, which was submitted to you over 6 years ago, contains a Sequential Test about which the LPA consider *"the extent of the search area is too limited".*

Our client is now seeking permission for a self-build home on land under their ownership within the area of a local authority which is failing to undertake its legal duty to meet the demand for this type of housebuilding. As a result of these circumstances the requirement for a wider search area is therefore unnecessary, particularly in light of the Environment Agency not objecting to the proposal. Subsequently, it is our opinion that as no other objection has been raised by the LPA throughout the course of this application, this additional material consideration enables a favourable decision to now be made without delay.

I therefore trust that this application will now be met with support and we look forward to hearing from you in the near future.

Yours sincerely

Gary Dickens
SF Planning Limited

Planning, Design and Access Statement
258 Cheltenham Road, Gloucester
April 2014 Addendum

This proposal seeks planning permission for the erection of 1no. dwelling at 258 Cheltenham Road, Gloucester. This proposal is a re-submission of an application submitted in October 2012 (ref: 12/00953/FUL), which was the subject of a non-determination appeal in June 2013 and was subsequently dismissed by the Inspector.

This submission therefore seeks to address the reason for the refusal of the earlier application and the reason why the appeal against the LPAs failure to decide the application was dismissed. This addendum should be read alongside the original Design and Access Statement insofar as all aspects of the design and access provisions for the proposed development are the same as the previous scheme.

Whilst the last application was not determined by the Council, their appeal statement explained, inter alia, that the proposed dwelling would not reflect the scale, density and layout of its surroundings, would be at odds with the pattern of development locally, would represent over development of the site and would be a cramped form of development.

When determining the appeal, the Inspector concluded that the proposal would sit comfortably within the plot and would be in keeping with the character and appearance of the local area.

The other matter raised by the LPA as part of the appeal related to flood risk and the lack of a Sequential Test submitted with the application. In this regard, the Inspector stated that as a full and detailed Sequential Test had not been submitted, there was insufficient evidence to suggest that there were no reasonably available alternative sites and as such, the proposal had not met the Sequential Test.

Given the above, this fresh application seeks to fully address the issue regarding the Sequential Test, and related to that the degree to which the site is susceptible to flooding and therefore whether or not a sequential test is actually required.

The addendum to the Flood Risk Assessment (FRA), alongside this addendum to the DAS, is therefore the key document for consideration with this application.

The submitted FRA addendum assesses the flood risk of the site in the context of the recent and successful flood alleviation works at the nearby Horsbere Brook. The submitted report fully details how the recent works have reduced significantly the flood risk of the site. Whilst, according to the Environment Agency's flood risk map the site sits on the very edge of flood zones 2 and 3, the FRA shows that the alleviation works have removed the site from flood zone 3 and that the coverage of the site by flood zone 2 is perhaps questionable given the very minimal depth of any flood water that might occur in the now unlikely event of a flood (following alleviation works), and the fact that this would not resulting any danger to human health or life.

In addition, modelling undertaken shows that *"the site is not at risk of flooding for flood events with an annual exceedance probability of up to 1% (with or without the FAS being in place). In addition the Horsbere Brook FAS constructed in 2011 should provide flood protection to the site for flood events with a magnitude up to and including the 1% AEP with climate change flood event"*. In conclusion, the report states that *"It is therefore considered that flood risk to the proposed development is low and appropriately managed such that the development is safe from flooding"*. The full findings from the FRA can be found in the accompanying report.

Given that it has been shown that the site is safe from flooding, the need for a Sequential Test does not apply.

Apart from the submission of the FRA addendum, all other aspects of the application remain as application ref: 12/00953/FUL. As the Inspector found no fault with the application other than the lack of a Sequential Test, we trust that the application can now be considered entirely acceptable.

Planning, Design and Access Statement

in support of

Erection of 1 dwelling

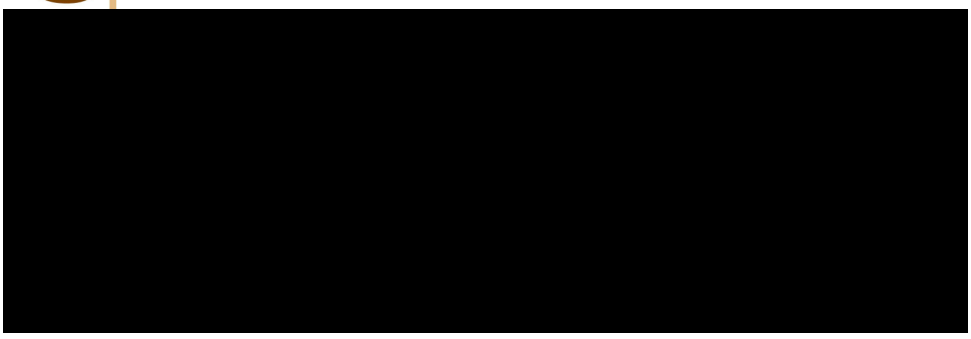
at

258 Cheltenham Road, Gloucester

On behalf of Harris and Graves Scaffolding Limited

September 2012

Contents



RTPI
mediation of space · making of place
Chartered Town Planners

1.0 Background, Location and Context

Background

1.1 Planning permission is sought for the erection of one dwelling on land to the rear of no. 258 Cheltenham Road, Gloucester.

1.2 This application follows extensive history on the site. The most recent application (ref: 10/00736/FUL) was for two dwellings and was refused by the Council due to concerns about a cramped form of development and the resultant impact on the street scene and the character of the area. The Council also had concerns about the size of the garden areas and the level of amenity this would provide for future residents.

1.3 That decision was appealed and subsequently dismissed. However, in dismissing the appeal the Inspector concluded that the proposed development would respond well to its surroundings in terms of its design, parking arrangements, impact on the street scene and the character of the area. The Inspector did however find that the amount of private amenity space would not reflect the grain of the area as it would appear tight, suggesting overdevelopment of the site. The Inspector was also critical of the extent of private amenity space left for the main house at number 258.

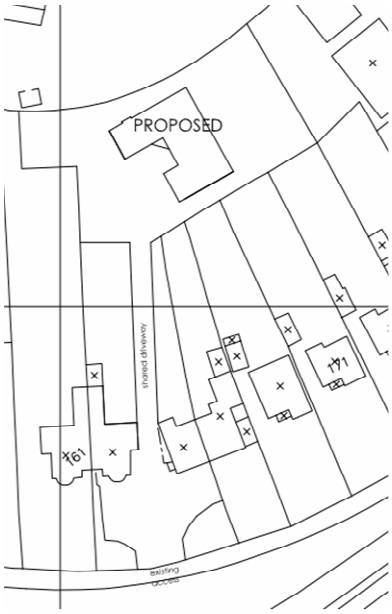
1.4 Significant amendments to the proposal have therefore been undertaken to suitably overcome the reasons for the appeal being dismissed.

1.5 Firstly, as can be seen in the submitted plans, the development has been reduced from two dwellings to one dwelling. This automatically creates more space about the proposed development and instantly doubles the amount of private amenity area for the new dwelling. This in itself addresses the Inspectors concerns.

1.6 In addition, the extent of hard surfacing associated with the existing dwelling has been greatly reduced to significantly increase the amount of amenity space for the main house – again directly responding to the other criticism of the Inspector.

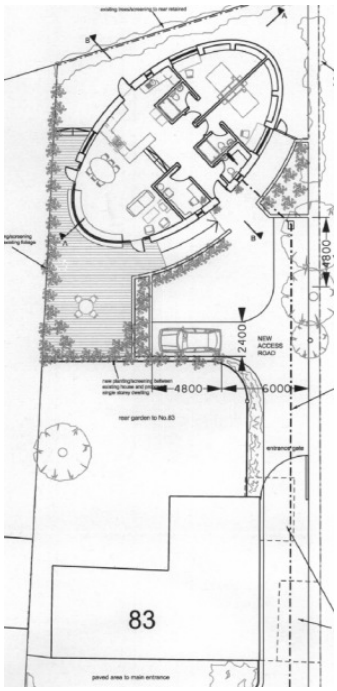
1.7 There was little need to make significant changes to the external appearance of the scheme, with the Inspector finding the design complemented the prevailing local character. The pursuit of a single dwelling has however enabled the design and layout to be successfully revisited slightly as set out later in this statement.

1.8 There is a degree of precedent in the locality for the erection of dwellings in locations not dissimilar to the one now proposed. This includes permission granted in June of this year (planning reference 12/00265/FUL) for the erection of a detached dwelling together with a new access road and parking at 165 Cheltenham Road.



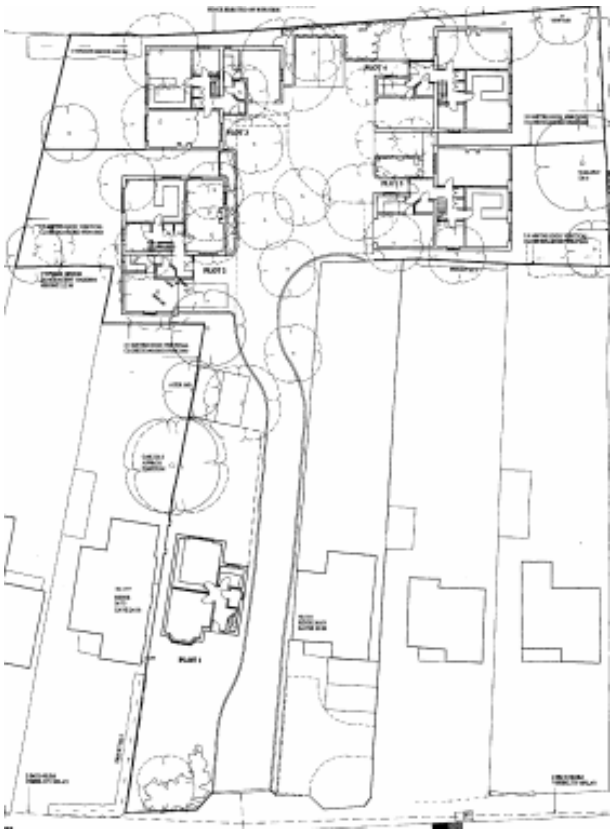
Permitted dwelling at 165 Cheltenham Road – 12/00265/FUL

1.9 A further example can be found at 83 Cheltenham Road (planning reference 08/01296/FUL) which was allowed on appeal in July 2009 for the erection of a single storey contemporary dwelling.



Permitted dwelling at 83 Cheltenham Road – 08/01296/FUL

1.10 In addition to the above examples, planning permission was granted in February 2007 (planning reference 06/01465/FUL) for the demolition of 179 Cheltenham Road and erection of 5 dwellings and new access road – as shown in the approved block plan below.



Permitted development at 179 Cheltenham Road – 06/01465/FUL

1.11 In all of these cases, in particular the examples of 83 Cheltenham Road and 179 Cheltenham Road, the size of the garden area of both the original and the new dwellings is quite considerably smaller than that prevailing in the vicinity. In this respect the characteristics of the proposal at 258 Cheltenham Road is directly comparable to these other acceptable solutions; albeit in this case the solution could potentially be seen as even more acceptable as it does not take a backland form, rather a sensitive infill within the street scene – a matter with which the Inspector raised no objection.

Location and Context

1.12 The site is located on Cheltenham Road, Gloucester. It is positioned on the corner of Cheltenham Road and Nine Elms Road, with the rear garden bounding the latter to the south west. The site is within a predominately residential area and is surrounded on all sides by existing residential development.

An aerial view of the application site and the surroundings

1.13 258 Cheltenham Road comprises a brick built, two storey semi-detached dwelling with a half hipped roof. The area for the proposed dwelling is the rear part of the large garden, alongside 1 Nine Elms Road, which itself has been extended on its side towards the application site. The land for the new dwelling is currently used for parking and the less well kept part of the garden. It includes a garage.

1.14 As shown in the photographs below, the area is characterised by semi-detached and detached dwellings of the same age and style, mostly with hipped or half hipped roofs. They vary in finishes between brick and render, with some having feature projecting bays to the front elevation. As before, the proposal fully maintains this established style.

Application site as viewed from Nine Elms Road. The site currently comprises an unkempt part of the garden and parking area/garage for 258 Cheltenham Road

Typical local street scene showing the arrangement of the dwellings, the general uniformity of design approach and the variety of materials

Example of what seems to be later infill type development within the estate. The projecting bay windows reflect the local style, although the front facing gable is less typical

Another infill example in close proximity within the estate – this one less successful in my view, with the proposal for number 258 being far more appropriate as acknowledged by the Inspector in July 2011

2.0 Use

2.1 Full planning permission is sought for the erection of 1 dwelling (use class C3).

3.0 Amount, Scale and Layout

3.1 The application site covers an area of approximately 286 square metres.

3.2 The two storey dwelling sits comfortably within the plot with ample space to the existing properties on either side. It allows for a generous usable outdoor amenity area of approximately 130 square metres (excluding the two dedicated parking spaces). This is more than comparable with the examples outlined above and shows that this scheme is certainly appropriate to its context and deserving of support. Internally the property will provide a kitchen, utility, dining room and lounge at ground floor level, with 4 bedrooms, a shower room and 2 bathrooms at first floor level.

3.3 The height of the eaves and ridge reflect those of other dwellings along Nine Elms Road. The scale and layout is very much in keeping with that of properties within the vicinity. It will therefore site very comfortably within the street scene and is entirely appropriate to the character of the locality.

3.4 The orientation of the dwelling and the arrangement of the openings in the external elevations mean that it will not result in any adverse impacts on the amenity of neighbouring residents, as required by policies BE21, HE13 and HE14.

3.5 Two parking spaces for the existing dwelling results in a significant reduction of the amount of hardstanding across the site when compared to the previous proposals, and ensures that generous private garden space for the existing dwelling remains.

4.0 Landscaping

4.1 The proposed dwelling will benefit from private outdoor amenity space in the form of a wrap around garden. Any further landscaping will be at the discretion of future occupiers.

5.0 Design, Appearance and Materials

5.1 The proposed dwelling is traditional in appearance and has been designed to be in keeping with existing properties in the area, primarily those located within Nine Elms Road with which the property most relates.

5.2 The unit will be finished with rendered elevations and hipped tile roof, to complement the appearance of neighbouring buildings. It has double height, feature bay windows with appropriate glazing details. Elegant and simple proportions create a pleasant rhythm that is right for both the dwelling itself as well as the street scene in which it sits.

6.0 Access

6.1 This is a highly accessible location with both good access to public transport links, and bus stops directly outside the site offering connections to both Gloucester and Cheltenham.

6.2 Off road parking for two vehicles is proposed to the front of the property, along with two spaces for the existing dwelling. The highway authority had no objection to the previous scheme, which involved accesses for three dwellings and a total of 6 off road parking spaces. The County Council have been approached about the access arrangements now sought and have no objection to the proposals subject to an appropriate set back to allow a 5 metre parking bay to be provided. The submitted plans therefore reflect this advice.

6.3 At implementation stage the scheme has been designed to adhere to the relevant sections of Part M of the Building Regulations and to meet as many as possible of the criteria that create a "Lifetime Home".

6.4 The plans show how pedestrian access incorporates measures appropriate to the dwellings potential location of flood risk. Recent alleviation works to the nearby watercourse, Horsbere Brook, are believed to have removed the threat of flooding to this location. The Environment Agency (EA) were therefore approached about the ability to remove the requirement to have floor levels set at 600 mm above the 1% AEP.

6.5 For now though, the EA have responded that they would wish to continue to see the floor level set at the previously agreed floor level. This is therefore how it is represented in the submitted plans, with the earlier Flood Risk Assessment also continuing to support the scheme. This matter can continue to be discussed through the application process as necessary.

7.0 Policy Considerations

7.1 The NPPF is clear that *"at the heart of the National Planning Policy Framework is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision taking"*; and for decision taking, this means approving development proposals that accord with the development plan without delay. Paragraph 49 of the NPPF goes on to say that *"Housing applications should be considered in the context of the presumption in favour of sustainable development."*

7.2 The focus of the Government to achieve growth through development and the strong "presumption in favour" were not in place when earlier applications at this site were being considered. Neither was the guidance in the NPPF which requires that *"Local planning authorities should look for solutions rather than problems"* (paragraph 187).

7.3 The age and status of the local plan means that its level of consistency with the NPPF is questionable. Putting that question to the side for now though, policy H.4 states:

"The development of previously used sites and buildings within the built-up area of the city for residential purposes will be permitted provided that:

1. The site is not allocated or protected by a policy of this plan for another purpose,
2. The scale of the development or its location does not threaten the development priorities of the plan,
3. The development will provide an acceptable environment for future residents; and
4. The development would not have an unacceptable impact on the amenities of adjoining dwellings or highway safety".

7.4 The policy was drawn up at a time when gardens fell into the definition of previously developed land. Although that is not longer the case, there is clearly no objection to the principle of development here within an established residential area, and the proposal does not conflict with any of the requirements of the policy – it does not threaten the development priorities of the plan; will provide a very acceptable environment for future residents (as discussed within this statement); and will not unduly harm the amenity of neighbouring residents or highway safety.

7.5 In terms of design, local plan policy BE.1 states:

"Proposed development should be of materials, scale, massing and height which sits comfortably with the height of existing adjacent buildings and the surrounding built environment. In certain circumstances there may be opportunity to create a landmark building that is different in scale to its immediate neighbours, and these will be encouraged and permitted where appropriate."

7.6 The submitted plans show how this expectation is fully met by the proposed development; with an approach that fully respects local character in all respects. In this way, the requirements of local plan policy H.7 are also fully satisfied in so far as they are applicable to the proposed development.

7.7 Local plan policy H13 deals with the sub-division of plots for infill development and is therefore relevant. It states:

"The sub-division of plots for the construction of additional dwellings will be permitted provided that:

1. the proposed development would not have an unacceptable effect on the character of the locality, the appearance of the street scene, or the amenities enjoyed by the occupiers of neighbouring dwellings,
2. adequate off-street parking and access arrangements can be provided for both the existing and proposed dwellings, and
3. the proposed development does not prejudice the potential for comprehensive development of adjacent land where this appropriate".

7.8 Concerning point 1, the submitted plans and this statement show that the development will not cause undue harm to the character of the locality, the appearance of the street scene, or the amenity of neighbouring residents.

7.9 With regard to point 2, more than adequate off street parking has been provided for both the existing and proposed dwelling; and in a way that does give rise to conflict with any other policy in the local plan or the guidance within the NPPF.

7.10 In terms of point 3, an opportunity for a more comprehensive form of development does not appear to exist here, such that the proposal does not prejudice that aim.

7.11 We have re-considered the development of this site in light of earlier decisions on the land and the new emphasis arising from the NPPF. We have taken account of the Inspector's reasons for dismissing the appeal for two units and have adjusted the scheme accordingly – reducing the number of units by 50%, significantly increasing the private amenity space for both existing and proposed dwellings, reducing the extent of hardsurfacing accordingly, and designing something that is entirely appropriate for the street scene and the character of the area.

7.12 The proposed development therefore accords with all relevant policy and guidance and accordingly we trust it will receive the Council's support.

Addendum – March 2014

CAPITA SYMONDS

258 Cheltenham Road

Gloucester

Flood Risk Assessment

June 2010

Document history

Version	Status	Issue date	Prepared by	Reviewed by	Approved by
1	Final	11/06/2010	BS	KC	KC

Capita Symonds Ltd

[redacted]

Table of Contents

Appendices

1. Introduction

Capita Symonds has been commissioned by Harris and Graves Scaffolding Ltd to undertake a Flood Risk Assessment (FRA) to accompany a planning application for a proposed development at 258 Cheltenham Road, Gloucester.

The proposed development comprises two semi-detached residential properties situated to the rear of the development site.

This FRA follows on from the Flood Risk Scoping Study undertaken by BWB Consulting in February 2009. The completed Environment Agency Standing Advice Form (FRSA v2.0) is appended to this document (Appendix B).

2. Site description

Existing site

The site is located in the Elmbridge area of Gloucester, north east of the city centre (Figure 1, Appendix A). The site is accessed from the north west via Cheltenham Road (B4063) and south west from Nine Elms Road.

The site occupies an approximate area of 0.065ha. It consists of a tarmac driveway (facing the Cheltenham Road) at the front of the existing semi detached property. A further driveway accessed from Nine Elms Road leads to a detached garage at the rear of the property. The remainder of the site is front and rear landscaped garden.

A topographic survey of the site shows that the site falls generally in a south east direction. Ground levels range from 18.79mAOD on the tarmac driveway at the front of the property to 18.52mAOD at the south east boundary of the property.

The site is located approximately 150m north east of the Horsbere Brook, a tributary of the River Severn. It is classified as Main River (designated statutory main rivers for which the Environment Agency is responsible).

Proposed development

The proposed development consists of two semi-detached two bedroom residential properties with associated parking spaces (Figure 2, Appendix A). The properties are located to the rear of the development site in the south east. The existing detached garage is to be demolished and the area belonging to no. 258 reduced.

3. Previous studies

BWB Consulting undertook a Flood Risk Scoping Study for this development in February 2009 (Appendix C) which investigated the sources of flooding at the site and has been referred to within this report.

The Horsbere Brook hydraulic model was developed by Capita Symonds Ltd on behalf of Robert Hitchins Ltd. Permission was obtained from Robert Hitchins Ltd to use the modelling results to inform the flood levels and extents for this Flood Risk Assessment.

A 2D, unsteady flow model (TUFLOW), dynamically linked to a 1D network hydrodynamic program (ESTRY) was developed in 2006 for the purpose of simulating free surface flows for the study areas at Longford and Innsworth. This model was extended in 2007 to include Longlevens and Elmbridge and calibrated against the June and July 2007 flood events. The report detailing the extension and calibration is included in Appendix D. The model has since been taken on board by the Environment Agency and Severn Trent Water to investigate fluvial flooding and flood risk management options to alleviate flooding in the area.

4. Policy and guidance

Planning Policy Statement 25: Development and Flood Risk

PPS25 defines flood risk as "involving both the statistical probability of a flood occurring and the scale of its potential consequences". Accordingly, flood risk is a combination of two components: the chance (or probability) of a particular flood event occurring, and the impact (or consequence) that the event would cause if it occurred.

PPS25 advises that a strategic approach should be adopted in keeping with the Government's aims to ensure that new development is sustainable. Notably it introduces:

- The concept of the formal classification of the vulnerability of development;
- The Sequential Test which aims to steer development away from areas with a high probability of flooding;
- It identifies the need to apply the Strategic Flood Risk Assessment to decisions taken at all levels of planning, i.e. the need for assessment at the Regional Spatial Strategy level, Local Development Framework and at site level; and
- The concept of flood risk reduction, particularly where development has been sanctioned on the basis of the "Exception Test".

PPS25 provides guidance on applying the Sequential Test and the Exception Test in Annex D. Annex E of PPS25 describes the minimum requirements for flood risk assessments at all stages of the planning process.

CIRIA Development and Flood Risk: Guidance for the Construction Industry (C624)

CIRIA publication C624 (2004) provides guidance to developers and the construction industry on the implementation of good practice in relation to flood risk and the development process. The following should be important considerations:

- All developments, even those that lie outside flood risk zones, may lead to an increase in downstream flood risk due to increased runoff rates and volumes. Therefore, all new developments should be designed so that runoff from the development is considered and, if appropriate, controlled.
- Safe access to and from the development should be allowed for during a flood event.
- The development design should be such that future users will not have difficulty obtaining insurance or mortgage finance as a result of flood risk issue.
- The above should be met for the lifetime of the development including considerations for climate change.

CIRIA Sustainable Drainage System (SuDS) Manual

The CIRIA SuDS Manual (2007) aims to provide comprehensive advice on the implementation of sustainable drainage techniques in the UK. It provides guidance on:

- Initial planning.
- Design through to construction.
- The management of SuDS in the context of the current regulatory framework.

- Advice on landscaping, waste management, cost, and community engagement.

This guidance will be followed during the Detailed Design stage of the development proposal (see section 9).

Again, the above should be met for the lifetime of the development including considerations for climate change.

5. Sequential Approach, Sequential Test and Exception Test

The proposed development lies within Environment Agency's Flood Zone 2. The first stage, the Sequential Test is being undertaken by DMS Consulting with Gloucester City Council. Following the Sequential Test, an Exception Test would not be required for this site as the development is classed as 'More Vulnerable' and in accordance within PPS25, this development within Flood Zone 2 is 'appropriate'.

The sequential approach at site level is still required. Following the sequential approach, the development was initially proposed for the north west corner of the plot, within Flood Zone 1. However, due to the visual impact of the development which would appear cramped and would be detrimental to the character and appearance of the area, the application was rejected by the Planning Inspectorate. This area was therefore ruled out as a potential site in this current application.

6. Flood Zone classification

The site is located within Flood Zone 2 of the Horsbere Brook. This is the area of land where there is between a 1% and 0.1% annual exceedence probability (AEP) of flooding in any year.

7. Sources of flooding

The potential sources of flood risk to the site have been identified in a flood risk scoping study undertaken by BWB Consulting.

Fluvial

The site is located within Environment Agency Flood Zone 2 of the Horsbere Brook. BWB Consulting obtained two flood event wrack marks from the Environment Agency for the July 2007 flood event. The location of these wrack marks and levels are shown on Figure 3 in Appendix A. Neither the Environment Agency nor Gloucester City Council are aware of any flooding specifically affecting the proposed development site during the July 2007 flooding.

The south eastern area of the site is shown to be inundated in the 1 in 100 annual probability river flood including an allowance for climate change. The Horsbere Brook hydraulic model (Robert Hitchins Ltd) has been used to estimate the river flood levels at the development site. These are detailed in Table 1 below. The extents are shown in Figure 3 in Appendix A.

Table 1 – Horsbere Brook modelled flood levels

Annual Exceedence Probability river flood	NGR	Flood level (mAOD) at site
1%	385982 219759	18.22 (closest to site)
1% (including climate change)	386116 219838	18.59
0.1%	386116 219838	18.70

Tidal

There is no tidal influence on the Horsbere Brook, therefore the development site is not at risk of tidal flooding.

Artificial Sources

Witcombe Reservoir is located at the top of the Horsbere Brook. This is some distance upstream and there are many structures between the reservoir and the proposed development site. Therefore the reservoir is not expected to affect the site.

Groundwater

There is no history of groundwater flooding at the site.

Sewers

The exact flood risk from the sewer network is uncertain but unlikely to be significant. The Gloucester City Council SFRA obtained information from Severn Trent Water with regard to sewer flooding. The data was made available using only the first 4 characters of the postcodes, so exact properties at risk could not be determined. However, it is known that there are 9 properties at risk in the same postcode area of the development site (GL2 0) which have a medium level of risk from sewer flooding. However, a review in the Flood Risk Scoping study (Appendix C) for this site estimates that the likelihood of flooding from sewers at the site is low due to the capacity on Nine Elms Road.

Surface water

The Environment Agency and Gloucester City Council informed the Flood Risk Scoping Report that Cheltenham Road between Elm Bridge and the Elmbridge roundabout were believed to be flooded from highway surface water during the July 2007 flood event but the proposed development site was not affected. The hydraulic model used in this FRA shows flood water on Cheltenham Road due to fluvial sources. Flooding in this location is likely to be a combination of both fluvial and surface water. Neither source is expected to flood the proposed development site during a 1% AEP flood event. There is currently no surface water management plan for this area.

8. Flood resilience and resistance

There will be no basements in the proposed development, therefore the finished floor levels will be built 600mm above the 1% AEP with climate change flood level (18.59mAOD) and will thus remain dry. The properties will consist of two storeys; therefore safe refuge will be available to the residents, if required, on the first floor.

9. Mitigation and management

To maintain or reduce the current surface runoff volumes, the following management measures are proposed:

- *Surface water:* the rear garden of 258 Cheltenham Road currently contains a total area of 75m^2 of impermeable surfaces which includes: a concrete hardstanding of approximately 17m^2 in front of the garage; a garage with a hardstanding of 15m^2; a concrete base near the house that is 12.4m^2 in area; and large concrete paving slabs around the house occupy approximately 30m^2.

  The footprint of the proposed dwellings is approximately 75m^2 and there will be a small area of hardstanding for vehicular parking and turning. This slightly increases the area of impermeable surface. A SUDS system involving an open ditch (swale) will be used to manage this slight increase in runoff. Detailed designs of the SUDs system can be submitted as a condition of consent.

- *Flood storage:* if required, the parking and turning areas for the development will be set below existing ground levels to increase the volume of flood storage.

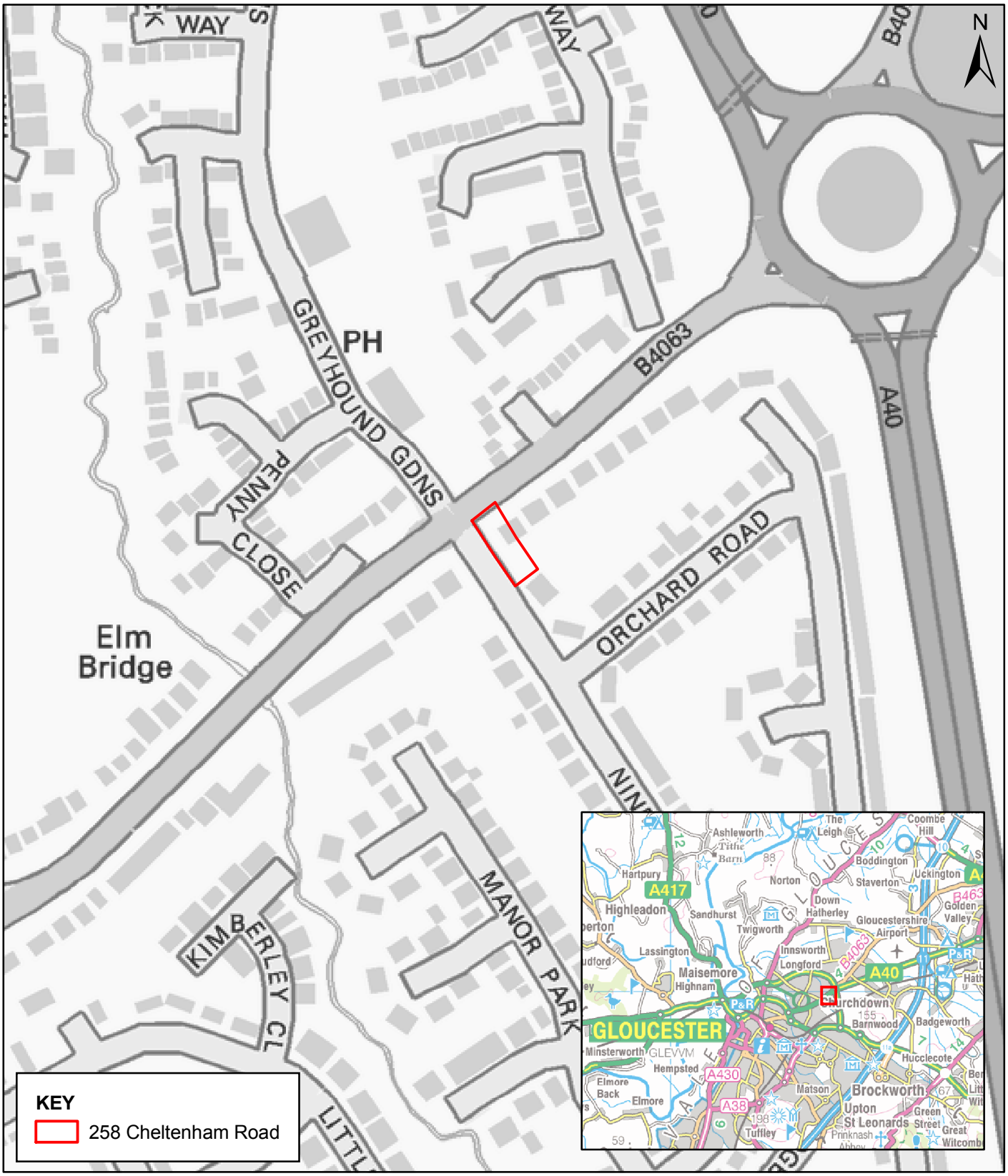
10. Conclusions

The results of the hydraulic model made available for this assessment show that the site is fully within Flood Zone 2.

The finished floor levels will be built 600mm above the 1% AEP with climate change flood level with safe refuge available on the first floor.

Flooding can be mitigated against on site by creating additional flood storage for both fluvial and surface water scenarios.

Appendix A – Figures



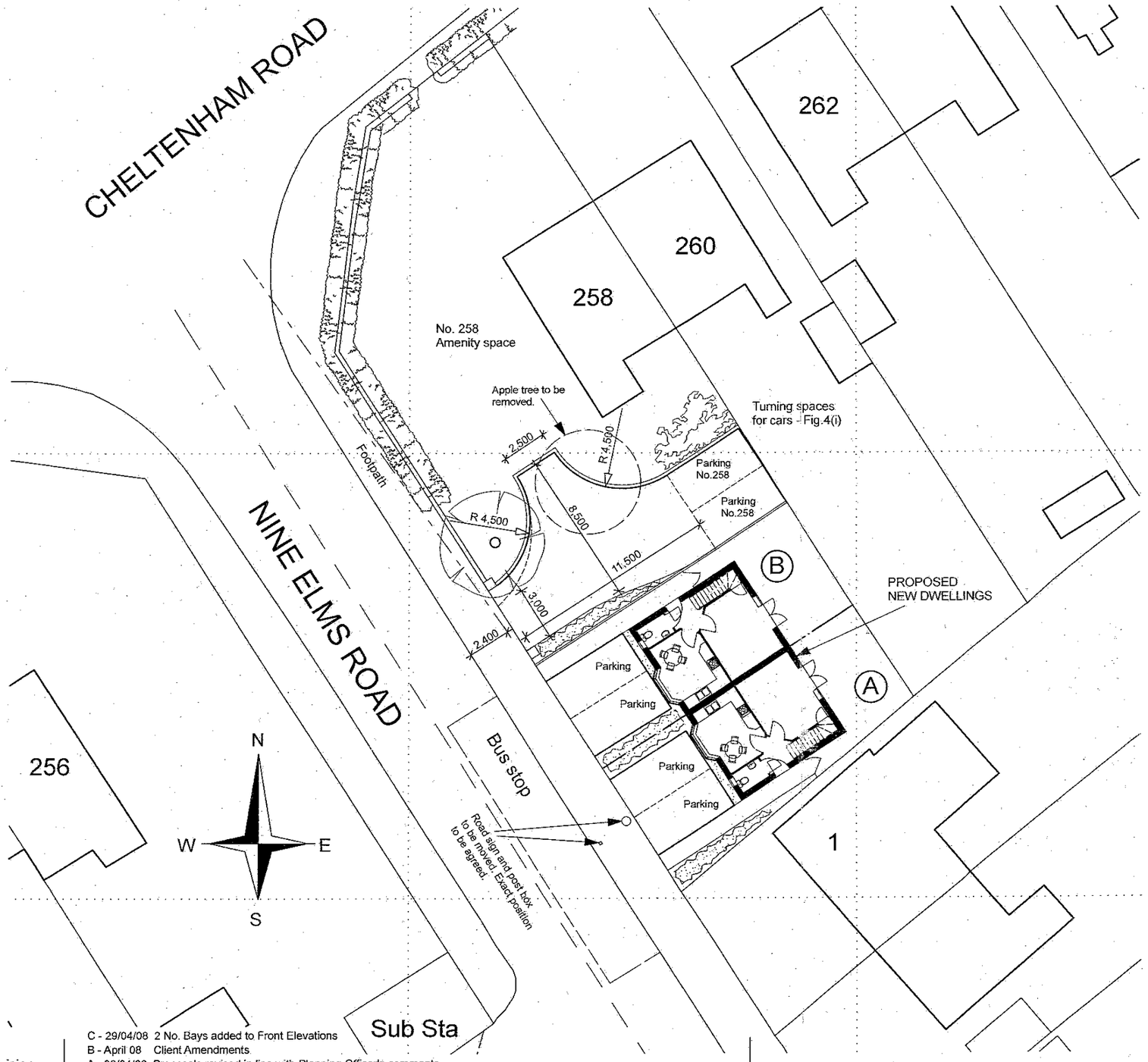
258 CHELTENHAM ROAD FRA

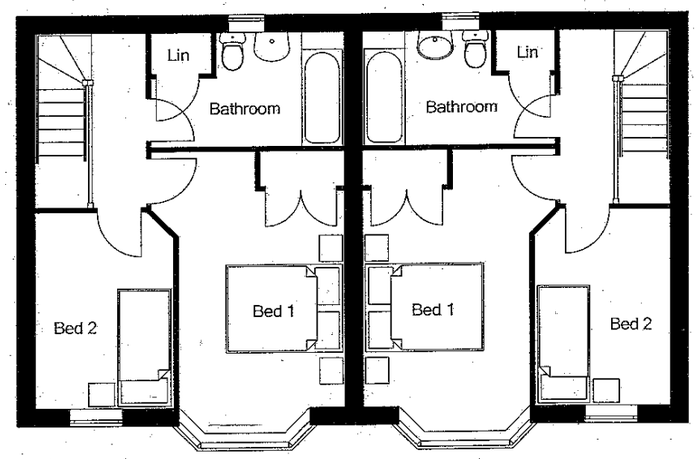
Figure 1
Site location

CAPITA SYMONDS

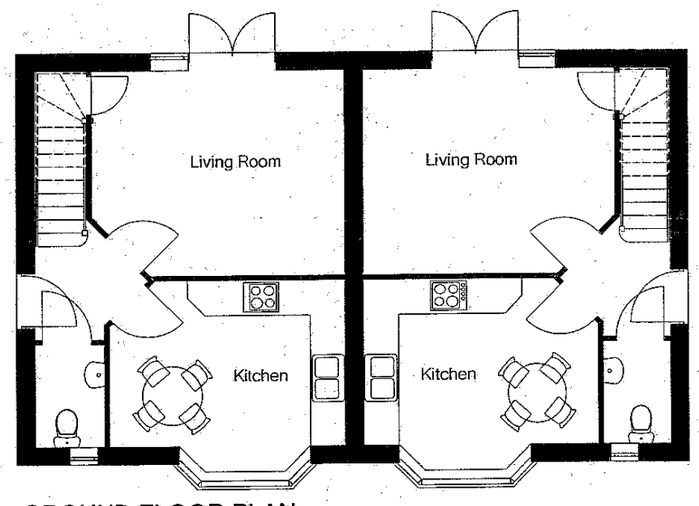
DRAWN BY	CHECKED BY	PASSED BY	DATE	SCALE @ A4	ISSUING OFFICE	DRAWING NUMBER	REV
BS	KC	KC	11/06/2010	1:3,000	E.Grinstead	CS043596/Fig_1	-

Figure 2 - Proposed Development Plan





FIRST FLOOR PLAN



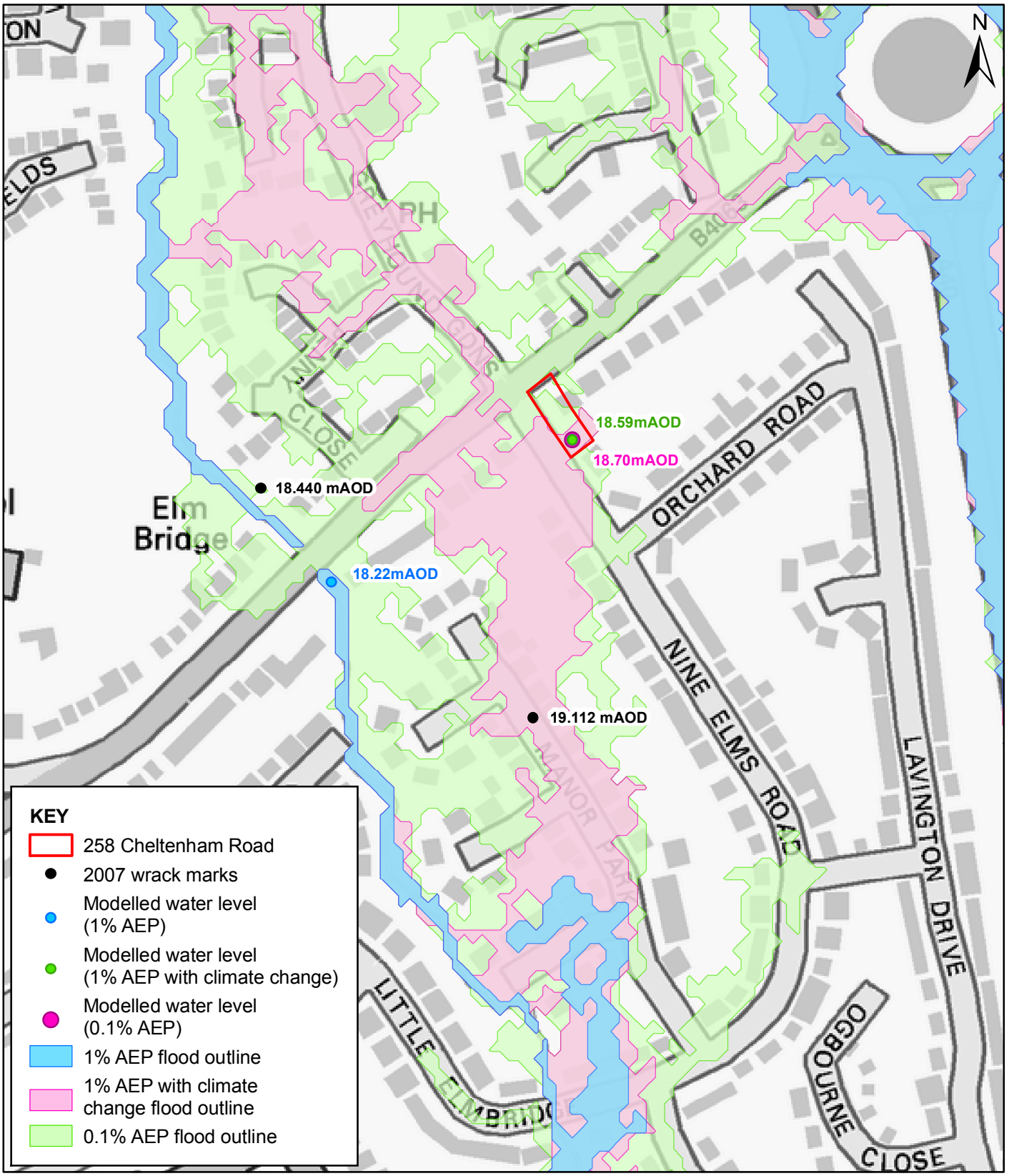
GROUND FLOOR PLAN

Revision	C - 29/04/08 2 No. Bays added to Front Elevations B - April 08 Client Amendments A - 08/04/08 Proposals revised in line with Planning Officer's comments.		
Client:	HARRIS & GRAVES	Scales:	1:250 & 1:100
Site Address:	Land at 258 Cheltenham Road, Longlevens, Glos.	Project Number:	P251
Drawing Title:	**Proposed Block Plan**	Drawing Number:	02
Date:	June 2007 Drawn By: AD	Revision:	C

Chartered Institute of Architectural Technologists

TD Trower Davies

Architectural Consultants



258 CHELTENHAM ROAD FRA

Figure 3
Modelled flood outlines, flood levels and 2007 wrack marks

CAPITA SYMONDS

DRAWN BY	CHECKED BY	PASSED BY	DATE	SCALE @ A4	ISSUING OFFICE	DRAWING NUMBER	REV
BS	KC	KC	11/06/2010	1:3,000	E.Grinstead	CS043596/Fig_3	-

Appendix B – PPS25 FRSA version 2.0 form

CAPITA

258 Cheltenham Road Gloucester

Flood Risk Assessment Addendum
March 2014

We | Listen Create Deliver

Quality Management

Job No	CS/071183
Project	258 Cheltenham Road Gloucester
Location	Gloucester
Title	Flood Risk Assessment Addendum
File reference	J:\ZWET\JOBS\70000\CS071183_258_Cheltenham_Road\Reports and Outputs\258 Cheltenham Road Gloucester Report March 2014 v1.0.docx
Date	February 2014

Revision Status / History

Rev	Date	Issue / Purpose/ Comment	Prepared	Checked	Authorised
1.0	March 14	Final	AL	CS	CS

Contents

Appendices

1. Introduction

In June 2010 Capita Property & infrastructure Ltd (Capita) was commissioned by Harris and Graves Scaffolding Ltd to undertake a Flood Risk Assessment (FRA) to accompany the planning application for the construction of two semi detached residential properties at 258 Cheltenham Road, Gloucester. Since the original planning submission changes have been made to the development proposals and in addition the Environment Agency has constructed a Flood Alleviation Scheme upstream of the development site which reduces the risk of flooding to the development. This report therefore provides an updated FRA to reflect these changes.

Proposed Development

The proposed development consists of a single two storey detached residential property with associated parking. The new property will be located to the rear of the existing property. As with the previous proposals the existing detached garage would be demolished and the area belonging to no. 258 Cheltenham Road reduced. Figure 1-1 shows the location of the proposed development with further detailed plans contained in Appendix A.

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Figure 1-1 Site Location Plan

Horsbere Brook Flood Alleviation Scheme

The Horsbere Brook Flood Alleviation Scheme was opened in December 2011. The scheme comprises a flood storage area located at Barnwood, a short distance upstream of the railway line near the development site (as shown in Figure 1-2). The scheme has a storage capacity of 170,000m^3 and provides a standard of protection for flood events up to and including an event with a Annual Exceedance Probability (AEP) of 1% (with allowance for climate change).

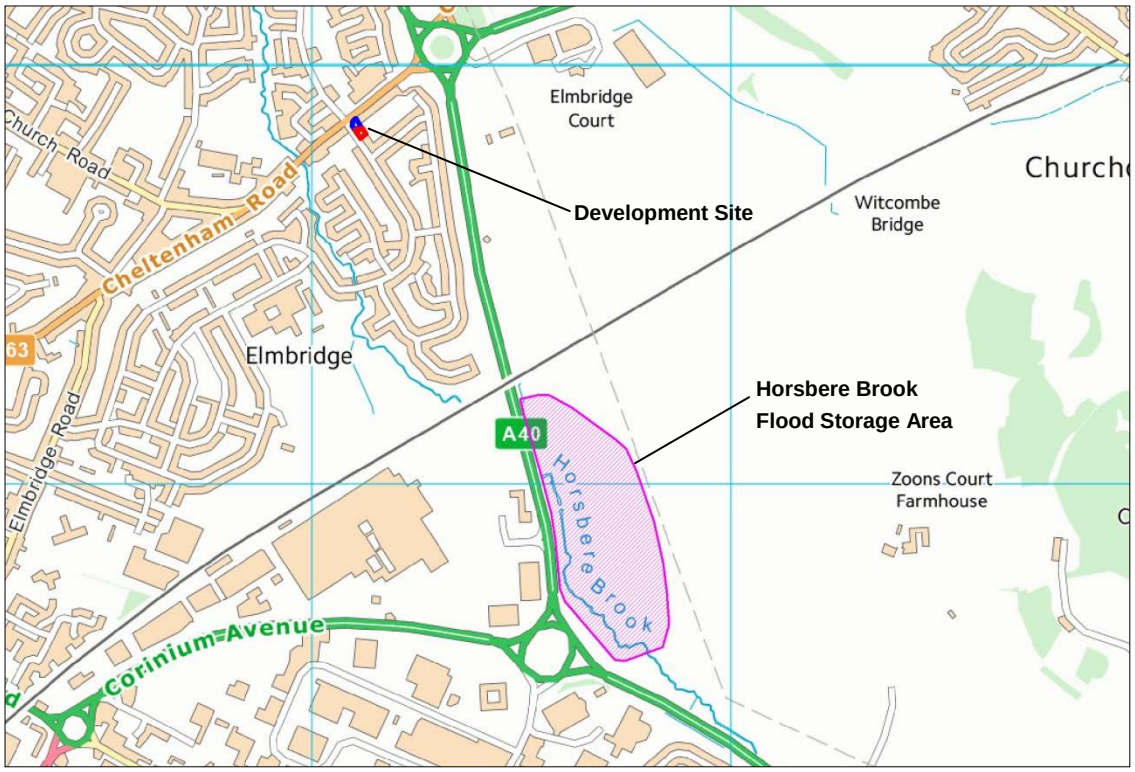

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Figure 1-2 Horsbere Brook FAS location plan

Figure 1-3 Photograph of Horsbere Brook FAS partially full following recent wet weather (February 2014)

2. Fluvial Flood Risk to the Development

A review of the Environment Agency Flood Map indicates that the development is located on the edge of Flood Zones 2 and 3 (as shown in Figure 2-1). The Environment Agency Flood Zones represent an undefended scenario, and therefore do not take into account the Horsbere Brook Flood Alleviation Scheme. In addition it is understood that the existing Environment Agency Flood Zones for the Horsbere Brook (last updated in 2011) are derived from a JFlow hydraulic model which is generalised hydraulic modelling and therefore may not fully represent localised flood mechanisms.

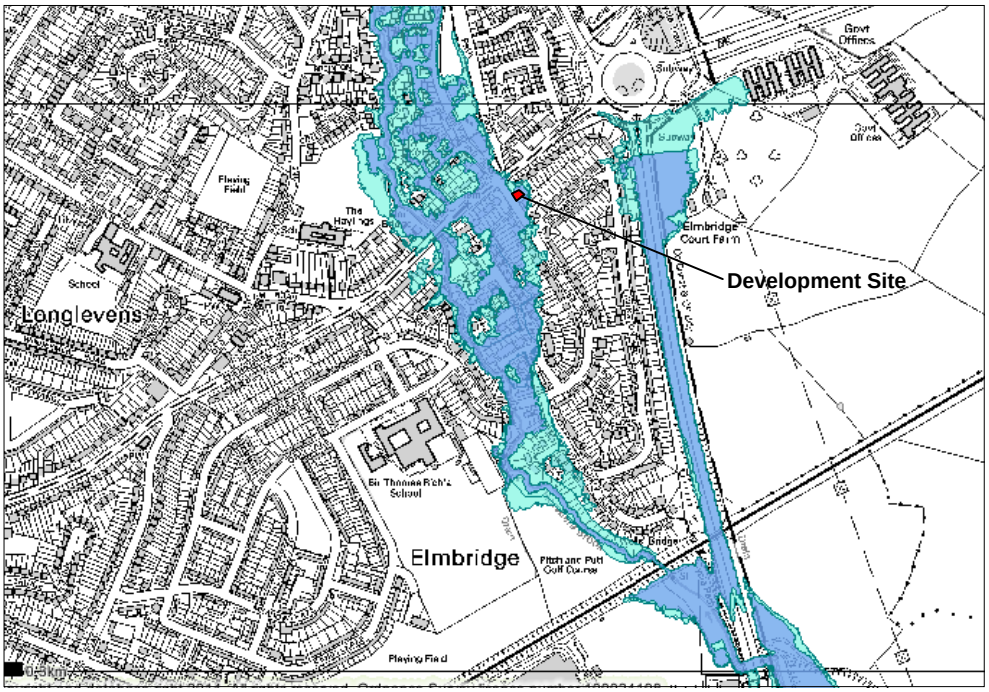

Figure 2-1 Environment Agency Flood Zones[1]

Detailed hydraulic modelling of the Horsbere Brook was completed by Capita on behalf of the Environment Agency in 2010 for the development of the Horsbere Brook Flood Alleviation Scheme (FAS)[2]. Consultation with the Environment Agency has confirmed that the hydraulic modelling completed for the FAS assessment is currently the best available information to inform the fluvial flood risk from the brook and therefore has been used for this assessment.

Figures 2-2 to 2-4 show the predicted flood extent and flood depths for the defended and undefended 1%, 1% with climate change and 0.1% AEP flood events. Based on the hydraulic modelling conducted for the Horsbere Brook FAS, the site:

- **Does not** lie within the flood outline for a 1% AEP event (defended or undefended)
- **Does** lie within the 0.1% AEP event flood outline (defended or undefended)

[1] Figure as provided by the Environment Agency 19/02/2014
[2] Horsbere Brook FAS, Flood Risk Assessment, Capita Symonds, August 2010

The modelling indicates that the site lies within Flood Zone 2 but not Flood Zone 3.

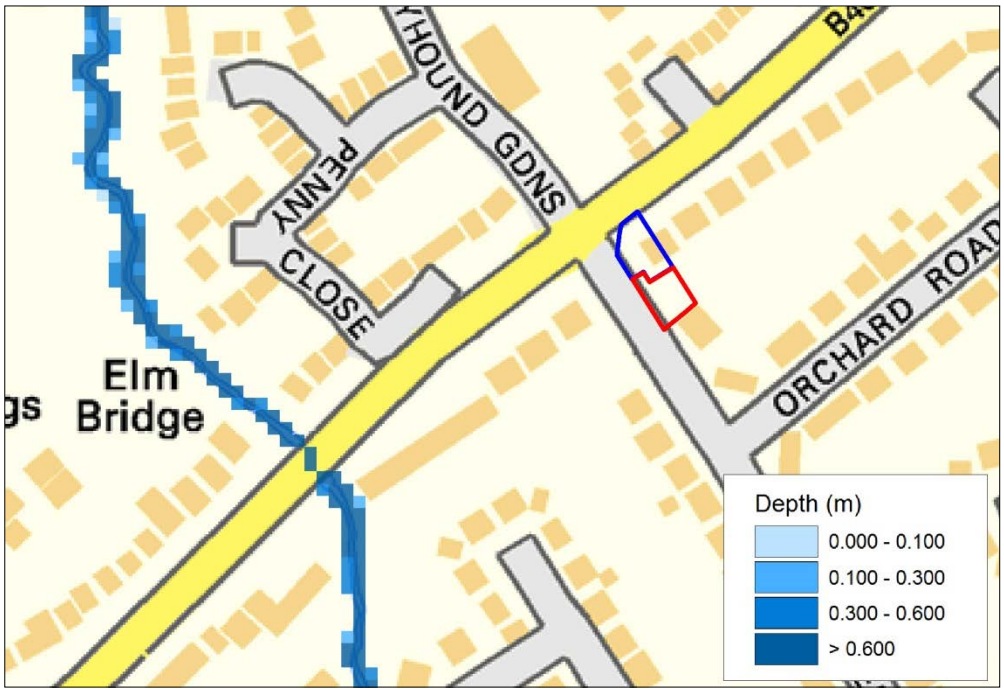

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Figure 2-2 Undefended – 1% AEP event modelled flood depths (defended and undefended results are similar in this area)

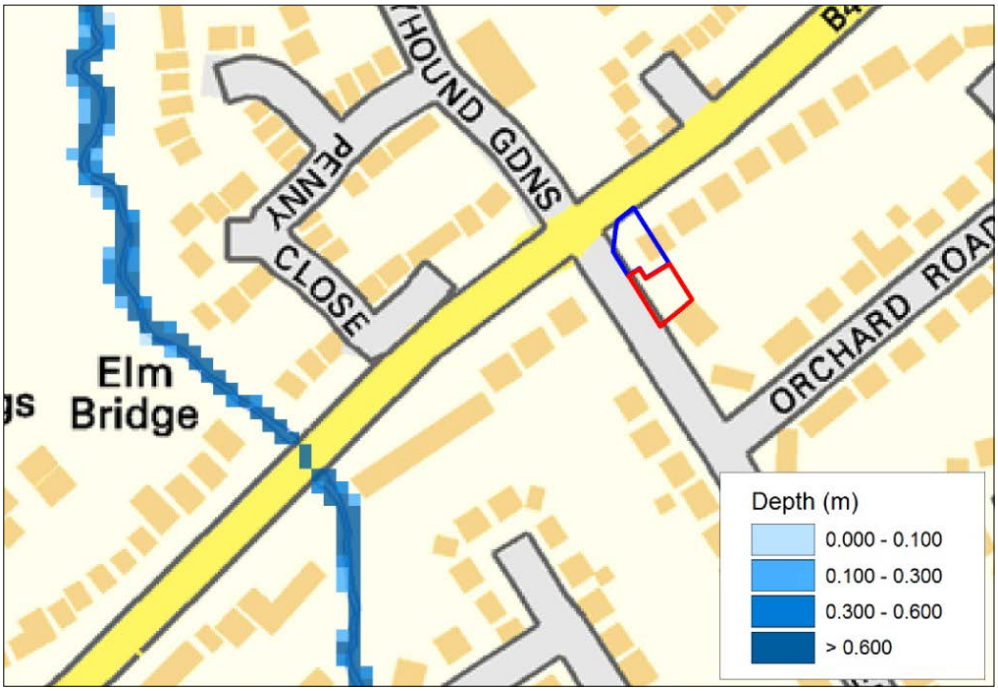

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Figure 2-3 Defended – 1% AEP with climate change event modelled flood depths

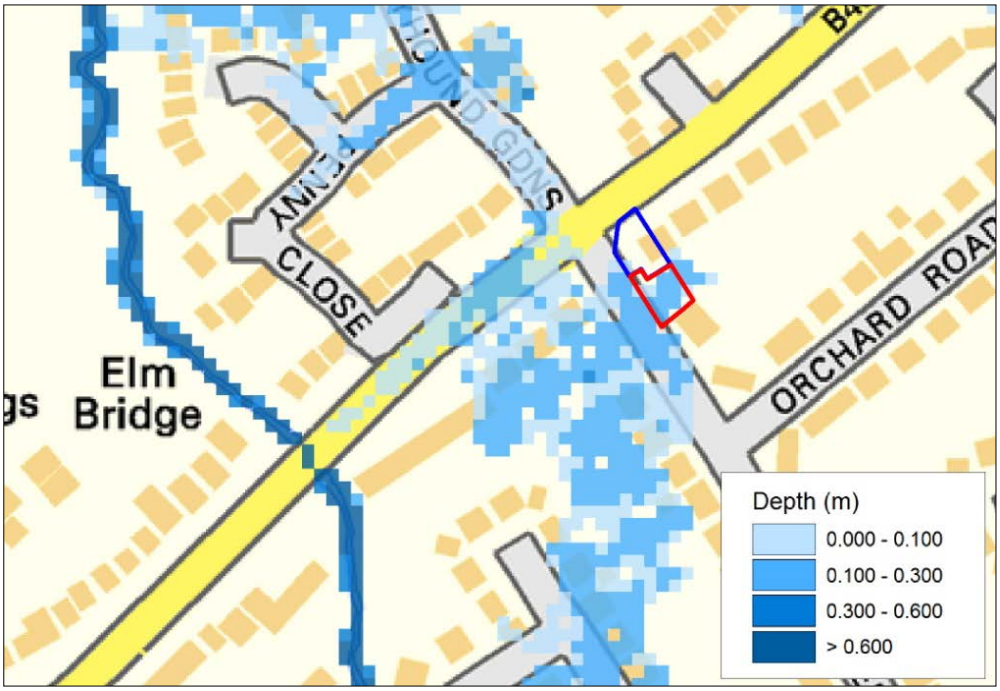

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Figure 2-4 Undefended – 1% AEP with climate change event modelled flood depths

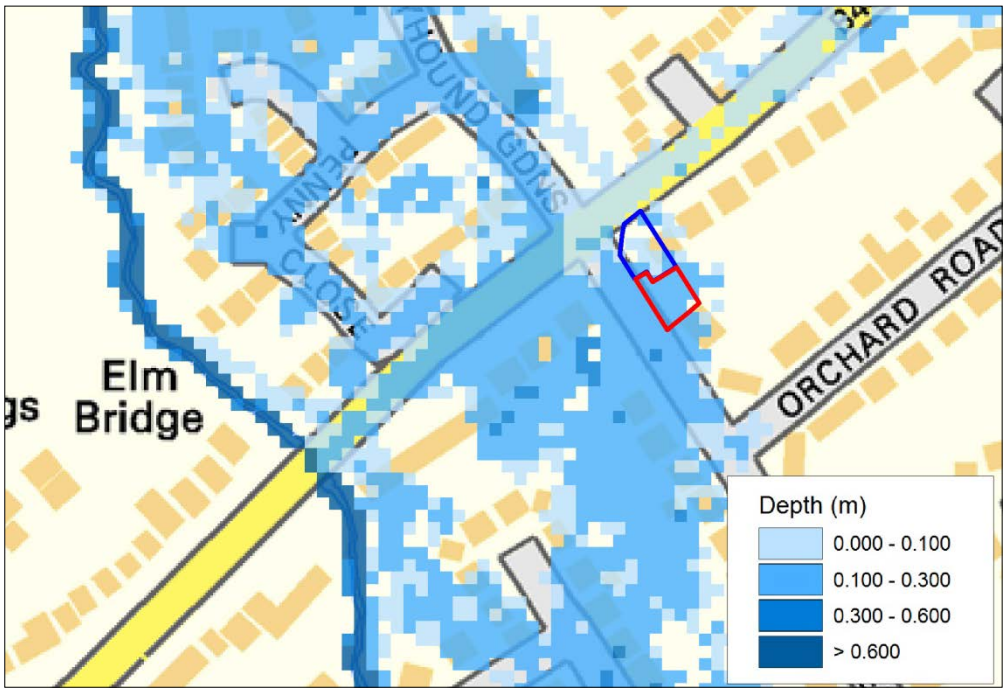

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Figure 2-5 Defended – 0.1% AEP flood event modelled flood depths (defended and undefended results are similar in this area)

Table 2-1: Modelled Flood Depths

Flood Event	Defended Flood Depth (m)		Undefended Flood Depth (m)	
	Average	Max	Average	Max
100 year	0.00	0.00	0.00	0.00
100 year with Climate Change	0.00	0.00	0.10	0.23
1000 year	0.18	0.23	0.19	0.35

Table 2-1 shows the modelled flood depths at the proposed development for both the existing (defended) scenario and an undefended scenario (similar to the Environment Agency Flood Zones). This demonstrates that even without the Flood Alleviation Scheme the peak flood depth that would be experienced at the site would be generally low (<0.2m), increasing slightly (max. 0.35m) to the rear of the proposed property where the existing topography is lower.

It is proposed that the finished floor levels will be built 600mm above the 100 year with climate change flood level. Based on the Horsbere Brook FAS hydraulic modelling this would be adequate for the property not to become inundated during an extreme event (0.1% AEP event), where the capacity of the alleviation scheme is exceeded.

In addition, in the event of an extreme flood event (0.1% AEP) or failure of the flood alleviation scheme (as indicated by the undefended model results) the predicted flood depths along Nine Elms Road and Cheltenham Road remain predominantly below 0.25m, which equates to a very low hazard rating as shown by Figure 2-6. A small section of Nine Elms Road is predicted to have a hazard rating of up to 1.1 - 'Danger for Some' which indicates that children, the elderly and infirm may not be able to pass unaided during an extreme event however safe access should be available to the general public and emergency services. During extreme flood events safe refuge will be available within the property which will remain flood free and provision can be made to assist more vulnerable occupants away from the property.

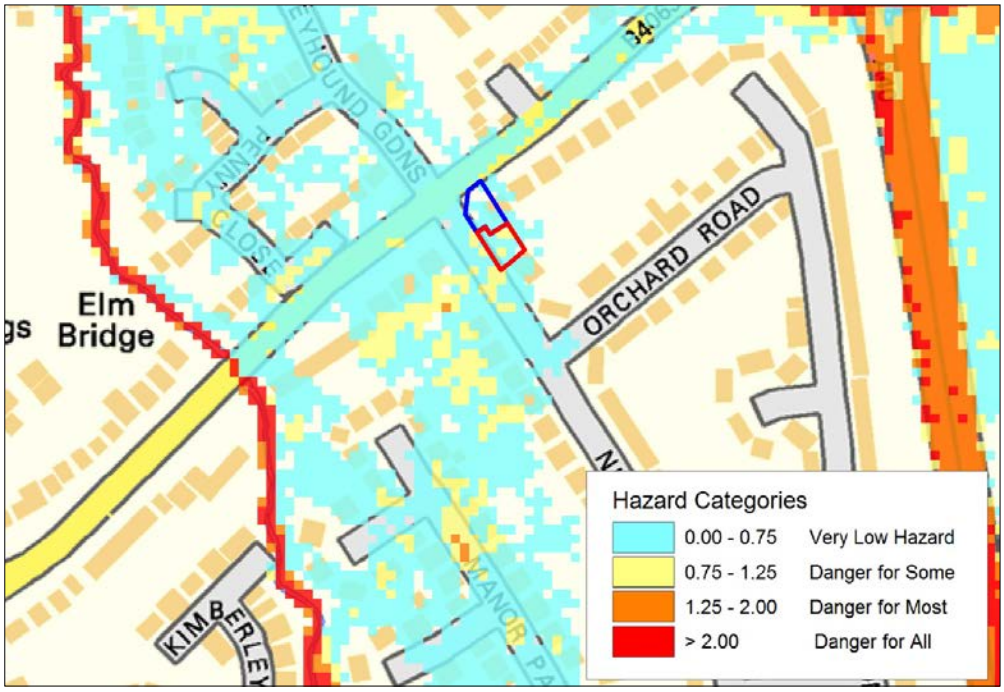

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Figure 2-6 Defended - 1000 year flood extent flood hazard

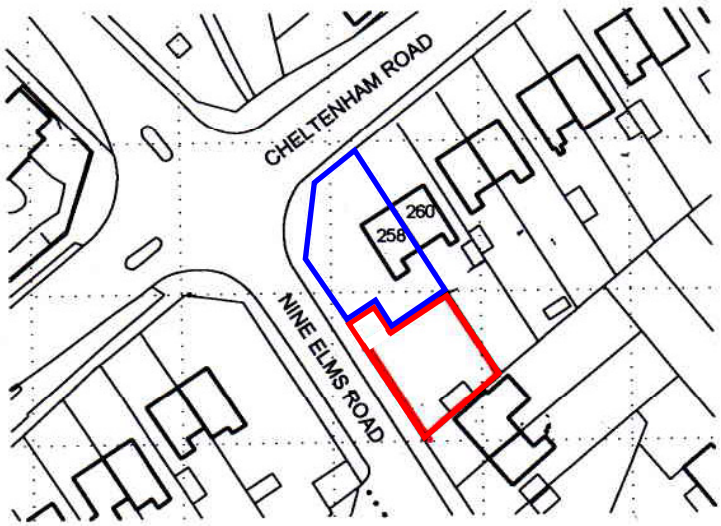
3. Conclusions

The hydraulic modelling results from the Horbere Brook FAS flood risk assessment indicate that the site is not at risk of flooding for flood events with an annual exceedance probability of up to 1% (with or without the FAS being in place). In addition the Horsbere Brook FAS constructed in 2011 should provide flood protection to the site for flood events with a magnitude up to and including the 1% AEP with climate change flood event.

Although the site is shown to be at risk from extreme flood events (0.1% AEP) the hydraulic modelling indicates that the average flood depths will be low (<0.20m). It is proposed that the finished floor level will be set above predicted levels therefore providing a safe refuge within the property during extreme events.

Shallow flooding is predicted along Cheltenham Road and Nine Elms Road during the 0.1% AEP event. During these extreme cases more vulnerable occupants (children, the elderly and infirm) may require some assistance in leaving the property however the flood hazard rating along a majority of the access route to and from the property is generally very low (caution but safe for all), and where results indicate slightly a higher hazard rating safe access to the site can be achieved by the general public and emergency services without difficulty. It is therefore considered that flood risk to the proposed development is low and appropriately managed such that the development is safe from flooding.

Appendix A
Proposed Development Drawings



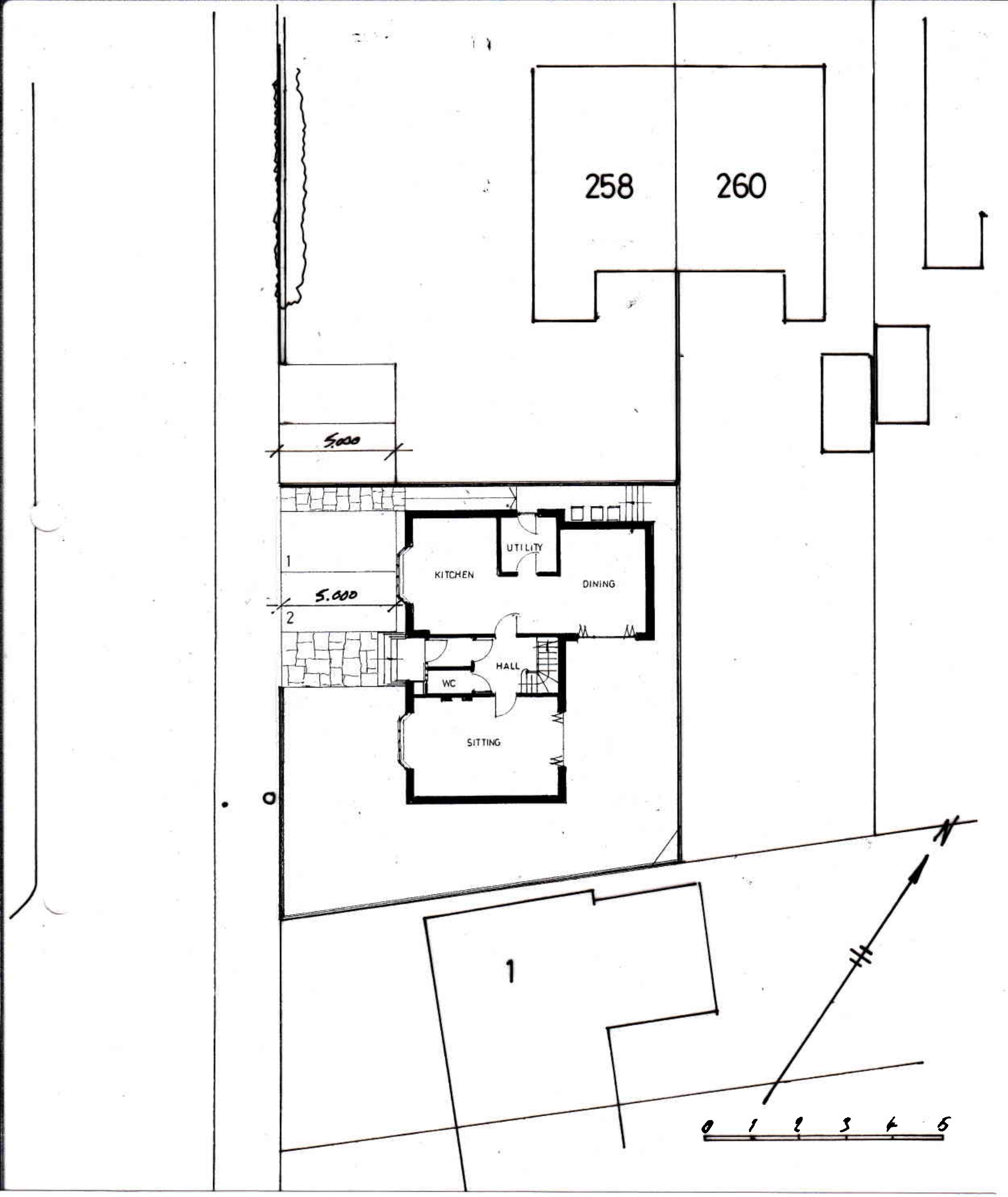
Site Location Plan Scale 1:1250

0 10 20 30 40 50

258 Cheltenham Road. New Dwelling.

Location Plan
Scale 1:1250 @ A4

1577.8



258 Cheltenham Road. New Dwelling.

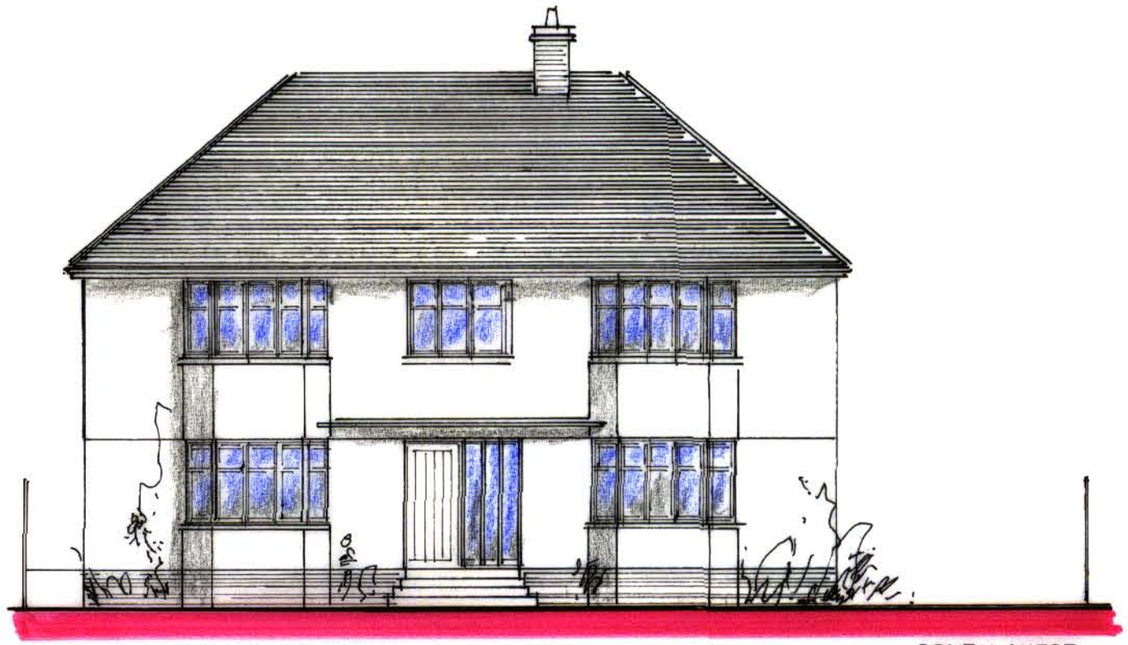
Block Plan

Scale 1:200 @ A4

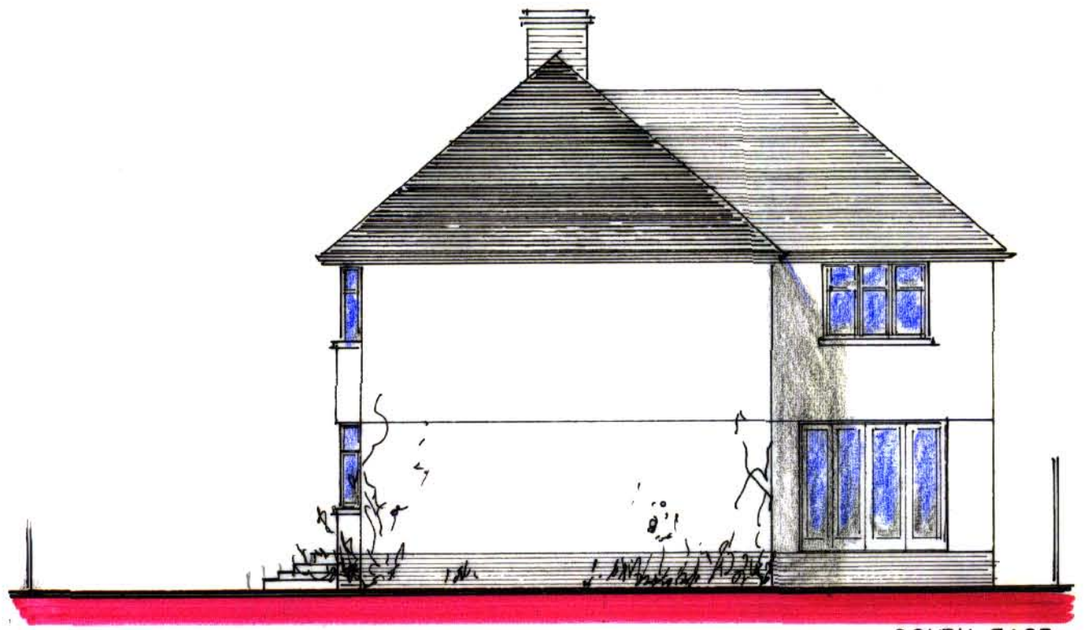
b CAR PARKING BAYS LENGTH ADDED

1577.1~~0~~ b

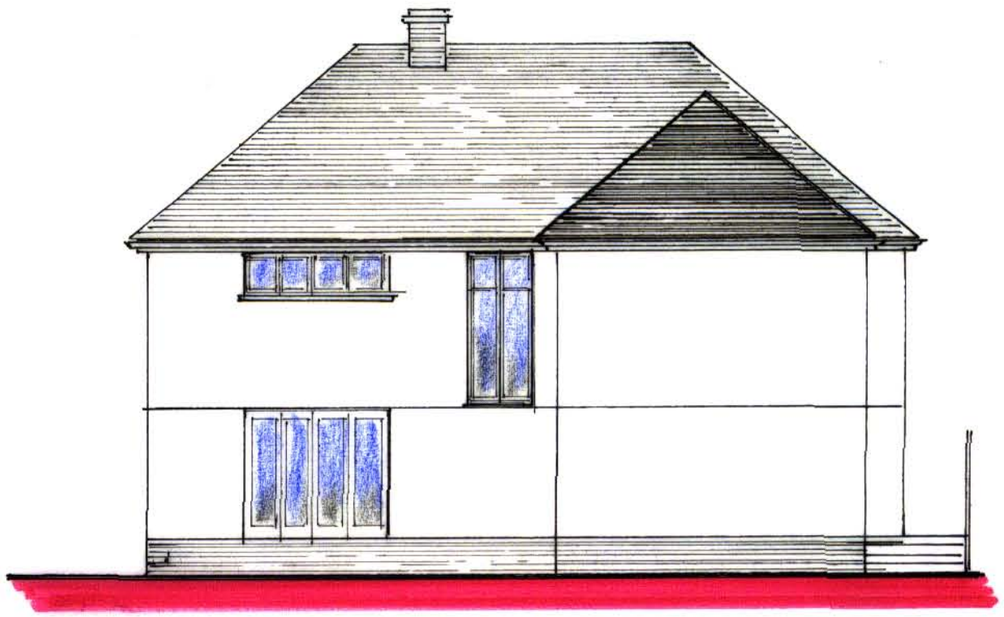
[redacted]



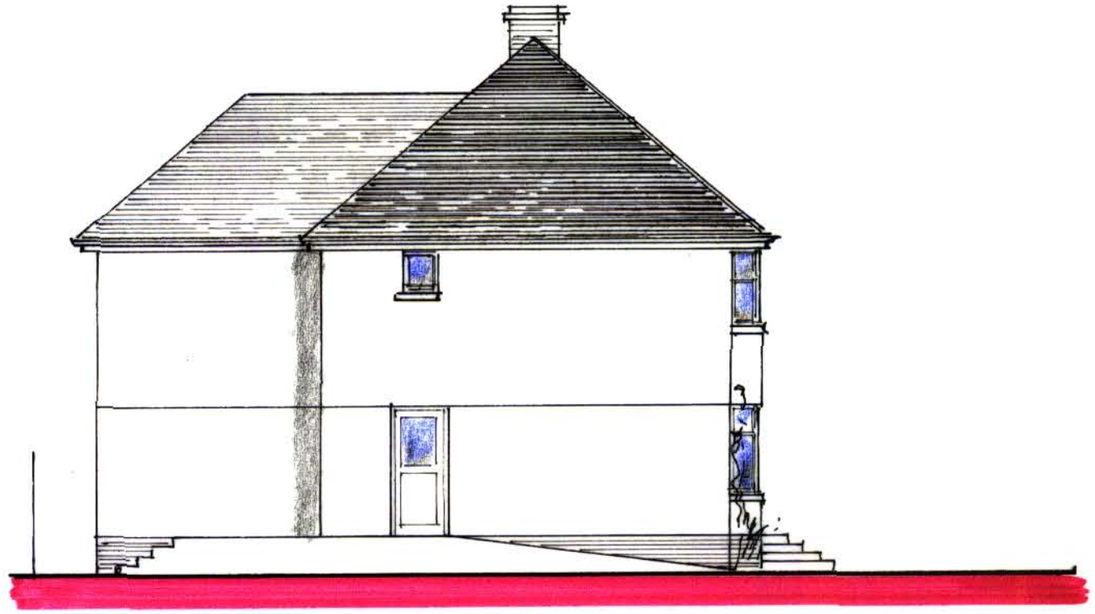
SOUTH WEST



SOUTH EAST



NORTH EAST



NORTH WEST

258 Cheltenham Road. New Dwelling.

Elevations
Scale 1:100 @ A3

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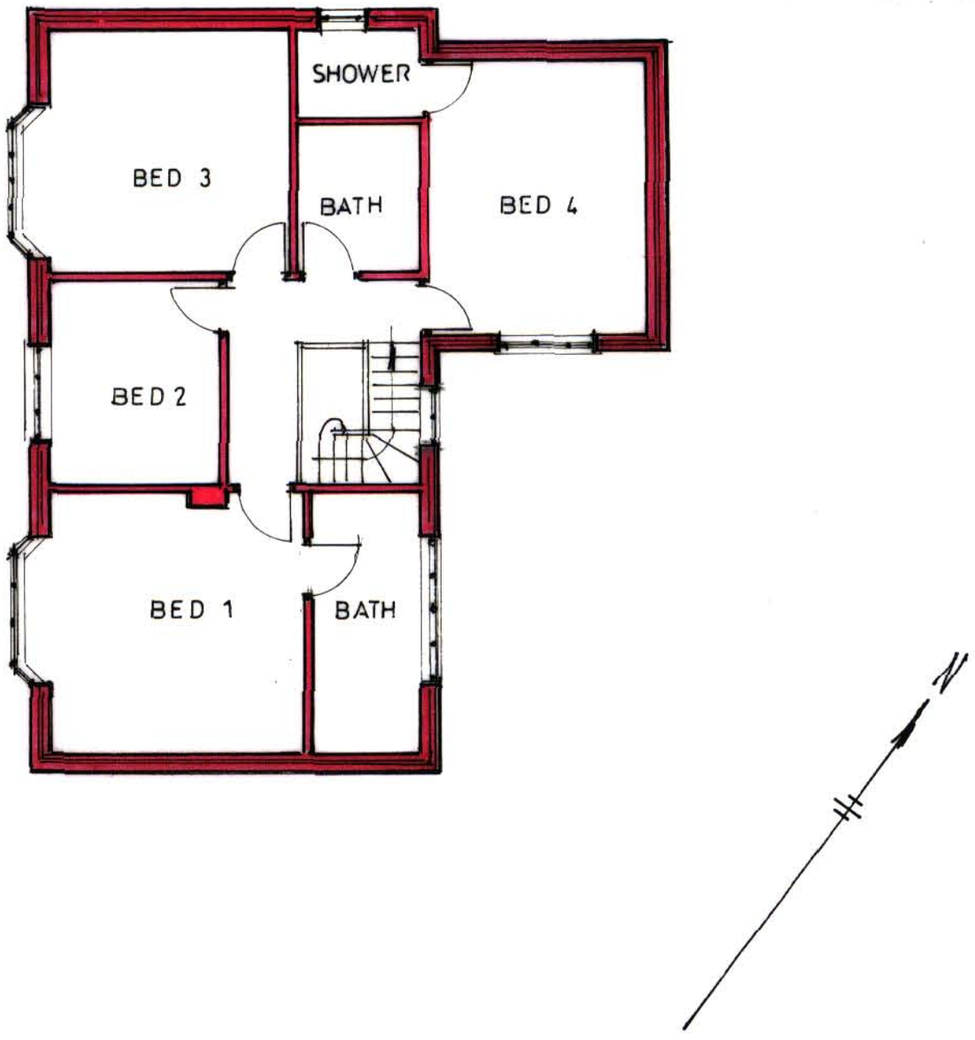
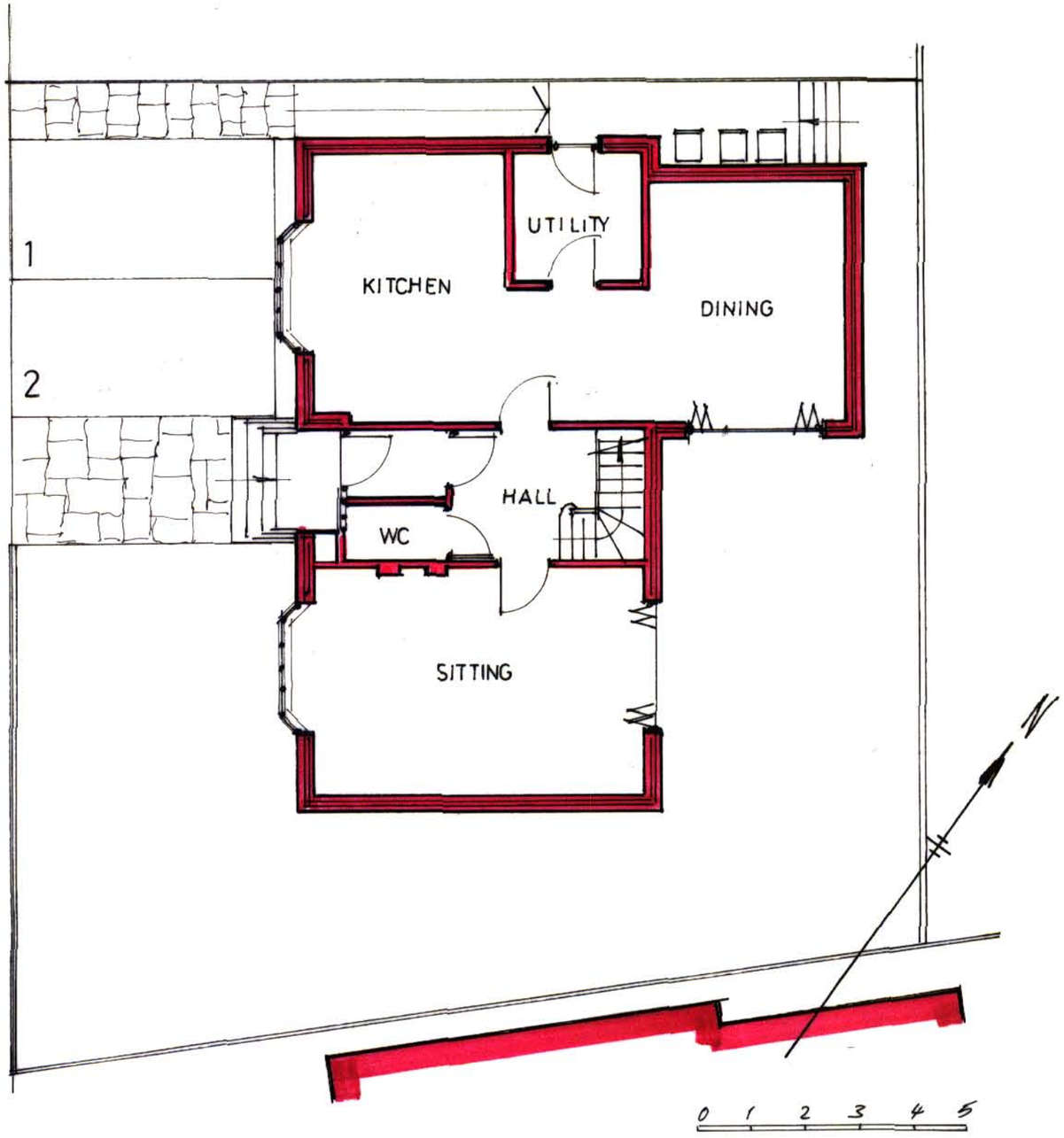
[redacted]



FIRST FLOOR



GROUND FLOOR

258 Cheltenham Road. New Dwelling.

Floor Plans
Scale 1:100 @ A3

1577.4

[redacted]

CAPITA

Capita Property and Infrastructure Ltd

[redacted]

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