



Brockington Residential Development: Design and Access Statement

September 2016

Approval Record			
Revisions			
Ref	Description	By	Date
(A)	Revised bin store location, entrance off Hafod Road, rear elevation to aptment block	ACW	07/09/16
(B)	Revisions as noted in Amendments	JC	15/09/16
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Amendments

During the planning process, a small number of comments have been raised. This revised Design and Access Statement (Rev A) addresses these points. For clarity the changes to Figures and text are written in red and can be found on the following pages:

- Page 50 - Revised Figure 7.1 and paragraph 7.4
- Page 52 - Revised Figure 7.2
- Page 53 - Revised Figure 7.3
- Page 55 - Revised Figure 7.5
- Page 59 - Revised Figures 7.9 and 7.10
- Page 60 - Revised Figure 7.11
- Page 62 - Revised Figure 7.12
- Page 67 - Revised paragraph 7.41 and 7.42
- Page 73 - Revised paragraph 8.14

Design and Access Statement (Rev B) addresses the following points:

- Page 50 - Revised Figure 7.1
- Page 55 - Revised Figure 7.5
- Page 59 - Revised Figure 7.10
- Page 60 - Revised Sections
- Page 62 - Revised Figure 7.12
- Page 67 - Revised paragraphs 7.40 and 7.41

1.0 Introduction

I.E. Developments

- 1.1. IE Developments is a property development company which specialises in building high quality innovative luxury homes in premier locations across Herefordshire and Worcestershire. All their homes are built with the same high level of quality finish and meticulous attention to detail.
- 1.2. IE Developments has constructed in excess of 300 innovative and quality homes in it's 35 year history to date.
- 1.3. IE Developments design of their residential developments are exciting but practical, requiring minimal maintenance and ensure low running costs by embracing new technologies to achieve sustainable low energy homes with security that offers the ability to 'lock and go' with confidence.

Aims and Objectives

- 1.4. As with all their developments the aim is to deliver unique properties of both high quality design and specification to ensure a discreet, comfortable and relaxed living environment.
- 1.5. The design of the properties are to be exciting but practical, requiring minimal maintenance and ensure low running costs by embracing new technologies to achieve sustainable low energy homes.
- 1.6. To deliver a style of architecture which is contemporary and clean whilst taking consideration of the local vernacular.

IE DEVELOPMENTS
ELEGANT LIVING

IE DEVELOPMENTS

ELEGANT LIVING

Est. 1981



Winners of NHBC
Pride in the Job
2004, 2008 and 2015



Worcester Bosch
Housebuilder of
the year 2012



Innovation award
from the Chamber
of Commerce 2012



First UK developer
to achieve AECB
Silver Standard



Malvern Civic Society
Award winner
1995 and 1998



LABC -Building
Excellence Awards
2014 and 2015

Scope and Content of the DAS

Design Team

- 1.7. In 2016 IE Developments appointed One Creative Environments Ltd, a local highly experienced award winning multi-disciplinary design team to commence preparation of a full planning application. The team comprises of Architecture and Landscape Architecture.



- 1.8. In addition, the following specialist consultants have been engaged to support the work of the project team up to the submission of a planning application:
- Adrian Hope Tree Services - Arboricultural Survey
 - Adrian Hope Tree Services - Picus survey - Decay Detection Report
 - Countryside Consultants - Ecological Survey
 - Shire Geotechnical - Soil Investigation
 - Midland Survey Ltd - Utility Survey
 - Groundsure - Flood Risk Assessment



- 1.9. This Design and Access statement forms part of a comprehensive package of documents submitted in support of this full planning application and should be read in conjunction with them. Contained within and alongside the DAS are:
- Preliminary Ecological/Biodiversity Appraisals
 - Tree Survey and Report
 - A Review of the existing services
 - Topographical Survey
 - A Proposed Masterplan
 - Building Floor plans, Elevations and Roof plans
 - Site Sections
 - A Proposed Storm and Foul Waste Drainage Strategy
 - A Highways Summary
- 1.10. This document complies with legislation set out in The Town and Country Planning (Development Management Procedure) (England) (Amendment) Order 2013 and has the following function and purpose:
- To explain the design principles and concepts that have been applied to the development;
 - To demonstrate the steps taken to appraise the context of the development and how the design of the development takes that context into account;
 - To explain the policy adopted as to access, and how policies relating to access in relevant local development documents have been taken into account;
 - To state what, if any, consultation has been undertaken on issues relating to access to the development and what account has been taken of the outcome of any such consultation; and
 - To explain how any specific issues which might affect access to the development have been addressed.

2.0 Planning Context

Application Parameters

Application Description

- 2.1. The application proposes the development of the site east of the complex of buildings containing Brockington House.
- 2.2. The proposed development - the site layout, its access and landscape proposals are explained and discussed in detail within this supporting Design and Access Statement.
- 2.3. The application proposes a low density residential development consisting of four houses and five apartments.

Relevant Planning History

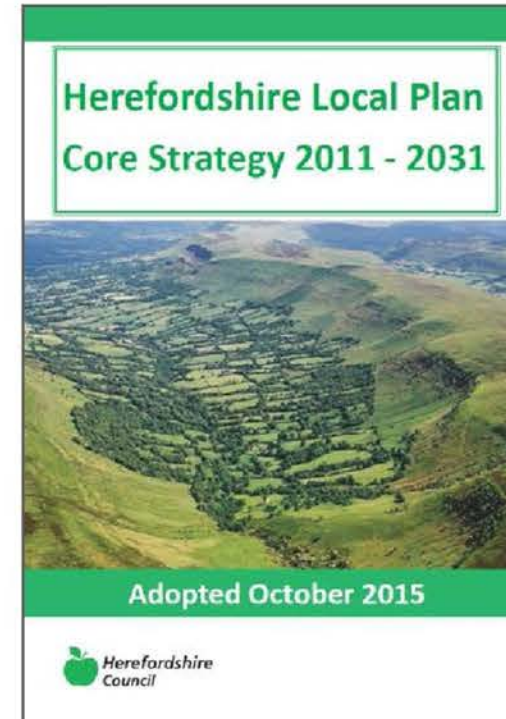
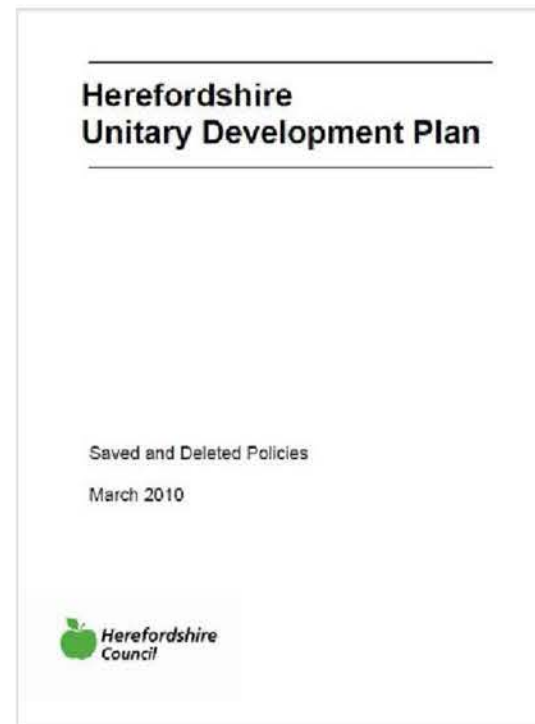
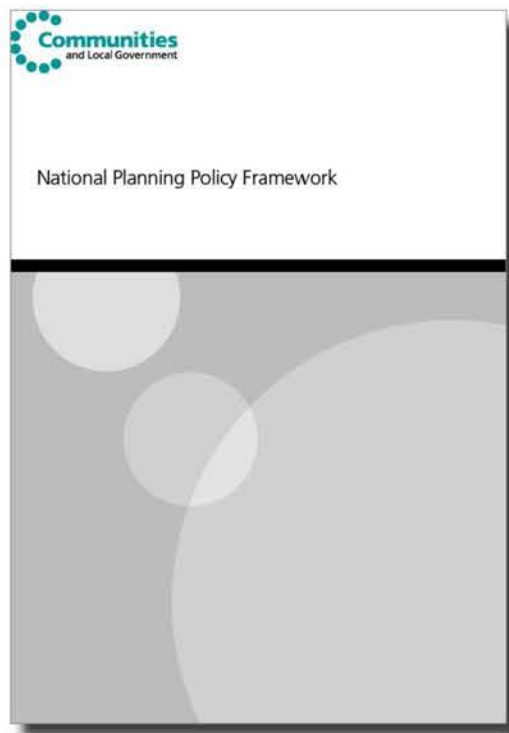
- 2.4. The overall site was first occupied by Herefordshire Council in the 1970s. In 1979 and 1990 extensions were added to the original building to provide additional office accommodation. These buildings remain today.
- 2.5. The Council announced its intention to dispose of Brockington House in December 2013. In March 2014 the Council issued an 'invitation to quote for Estate Agent Services'. The scope of work included the preparation of a development brief and engagement in pre-planning enquiries with the local planning authority to determine the development potential on the site.
- 2.6. This work was duly completed but it should be noted that it has not been adopted by the Council. The document therefore has little weight for development management purposes. It provides an appraisal of the development opportunities and constraints and an indication of how the site may be developed.
- 2.7. A pre application response to the development brief was provided. In summary the Development Manager confirmed that the site offered an opportunity for a high quality residential development (or mixed commercial/residential development) through the retention of the original house and the sensitive redevelopment of parts of its important parkland setting. The retention of trees within this context is considered to be of significant importance.

Consultation

- 2.8. A comprehensive set of pre application meetings have taken place in order that the final scheme considers all of the points that Herefordshire Council have raised. The dates when the discussions took place are:
 - 7th March - 1st Pre Application meeting - Preliminary discussions
 - 15th March - On site walk over. Discussion focussed around trees with council's arboricultural consultant and case officer
 - 22nd March - 2nd Pre Application meeting - With Case Officer, Highways Officer and Heritage officer
 - 11th May - 3rd Pre Application meeting - With Case Officer, focussed on Architecture and Hafod Road elevation
 - 4th July - Meeting with Councillor North and Case Officer, to discuss proposed scheme
- 2.9. Prior to submission of the planning application I.E. Developments have hand delivered a letter containing the masterplan and visualisations to the immediate neighbours of the site. The letter requests that any questions or need for more information be made directly to them within 10 days of the letter being delivered.
- 2.10. Additionally, the proposals have been made public via social media (Facebook, Linked In) and the Hereford Time have been informed.
- 2.11. I.E. Developments have also consulted with the Architectural Liaison Officer from West Mercia Police, on the site layout and preliminary designs. The development is to be designed and built to Secured by Design guidelines.



Planning Policy Context



National Planning Policy Framework

- 2.12. The National Planning policy Framework (NPPF) has a presumption in favour of sustainable development. Paragraph 49 of the NPPF states;
- 2.13. "Housing applications should be considered in the context of the presumption in favour of sustainable development".
- 2.14. A core principle of this is to;
- 2.15. "Always seek to secure high quality design and a good standard of amenity for all existing and future occupants of land and buildings". (para 17, point 4 NPPF 2012).
- 2.16. Paragraphs 14 and 15 of the framework confirm that sustainable development proposals that accord with the development plan should be approved without delay; and where the development plan is absent; silent or relevant policies out of date, permission should be granted unless any adverse impacts would significantly and demonstrably outweigh the benefits.

- 2.17. Section 7: Requiring Good Design in the NPPF sets out the governments commitment to good design.
- 2.18. "The Government attaches great importance to the design of the built environment. Good design is a key aspect of sustainable development, is indivisible from good planning, and should contribute positively to making places better for people."
- 2.19. "It is important to plan positively for the achievement of high quality and inclusive design for all development, including individual buildings, public and private spaces and wider area development schemes." (para. 56 & 57, NPPF, 2012)
- 2.20. Furthermore, the NPPF seeks to promote more sustainable development by requiring an approach that is based on stated objectives for the future of the area and an understanding and evaluation of its defining characteristics. Therefore, future design decisions should aim to ensure that developments:
- Add to the overall quality of the area;
 - Establish a strong sense of place;

- Optimise the use of land and placing an importance on high quality design;
 - Respond to the local character and history;
 - Create safe and accessible environments; and
 - Are visually attractive with good architecture and appropriate landscaping. (para. 58, NPPF, 2012)
- 2.21. "our standards of design can be so much higher. We are a nation renowned worldwide for creative excellence, yet, at home, confidence in development itself has been eroded by the too frequent experience of mediocrity." (page ii, NPPF, 2012)

Relevant Unitary Development Plan Policies (Summaries)

LA5 Protection of trees, woodlands and hedgerows

2.22. The enhancement and protection of individual trees, tree groups, woodlands and hedgerows will be secured by:

- Placing Tree Preservation Orders where necessary;
- Resisting proposals that would cause loss or damage to trees and hedgerows which are worthy of retention. Where the felling of protected trees is accepted replacement planting will be sought;
- Requiring development proposals to include an acceptable landscaping scheme incorporating the retention of those trees and hedgerows considered important to local amenity, together with measures to ensure their protection during development, and proposals for the replacement of trees lost to development.

LA6 Landscaping schemes

2.23. Landscaping schemes will be required to:

- Assess the existing character and features of the particular site and its wider landscape character;
- Protect and retain existing trees and hedgerows worthy of retention;
- New landscape works to ensure development integrates appropriately into its surroundings.

NC1 Biodiversity and development

2.24. Prior to determination of applications, a field evaluation may be required. Proposals should:

- seek to retain existing semi-natural habitat, wildlife corridors and species;
- demonstrate that the proposal will have no adverse effects on any adjacent biodiversity.

NC6 Biodiversity Action Plan priority habitats and species

2.25. Developments should have regard to those habitats and species listed in the UK and Herefordshire Biodiversity Action Plans in order to protect, manage and enhance priority species and habitats.

2.26. Proposals that might result in a threat to such priority species or habitats will not be permitted unless the reasons for the development clearly outweigh the need to safeguard the habitat or species.

DR1 Design

2.27. Where relevant to the proposal, all development will be required to:

- Promote or reinforce the distinctive character and appearance of the locality;
- Retain and where possible incorporate existing site features contributing to the quality of the local environment;
- Respect the context of the site;
- Include measures that address health and safety and the conservation of energy and water; and
- Submit a design statement which sets out how proposals relate to issues of design quality, environmental conservation and sustainability.

DR2 Land use and activity

2.28. Where relevant to the proposal, all development will be required to:

- Be located and designed so as to facilitate a genuine choice of modes of travel;
- Incorporate wherever possible a mix of compatible land uses;
- Be designed to deter crime and increase personal safety;
- Not prejudice the amenity of adjoining land and buildings; and
- Not constrain the future development of adjoining sites.

DR3 Movement

2.29. Where relevant to the proposal, all development will be required to:

- Provide safe, convenient and attractive movement corridors;
- Include good links to public transport;
- Include a travel plan for major developments;
- Be designed to secure access and mobility for all;

- Incorporate adequate provision for vehicular access;
- Incorporate cycle and vehicle parking to the required standards.

DR4 Environment

2.30. Where relevant to the proposal, all schemes will be required to:

- Be capable of being served by existing services or demonstrate that adequate services are reasonably accessible;
- Minimise resource use;
- Safeguard the availability and quality of surface and groundwater supplies;
- Contribute to local open space provision
- Maximise opportunities to enhance the local environment (hard and soft landscape, lighting).

DR7 Flood risk

2.31. Proposals for development in flood risk areas will need to be accompanied by a flood risk assessment.

HBA6 New development within conservation areas

2.32. Development within conservation areas will not be permitted unless it preserves or enhances its character or appearance. In assessing the suitability of a development proposal, a comprehensive design approach will be expected.

HBA8 Locally important buildings

2.33. Development proposals which would adversely affect the appearance or setting of locally important buildings of architectural or historic interest, or buildings that make a valuable contribution to the character and appearance of the area, will not be permitted.

Relevant Local Plan Core Strategy Policies (Summaries)

Policy SS1 – Presumption in favour of sustainable development

- 2.34. When considering development proposals Herefordshire Council will take a positive approach that reflects the presumption in favour of sustainable development contained within national policy.

Policy SS2 - Delivering new homes

- 2.35. Hereford is the focus for new housing development to support its role as the main centre in the county. The use of previously developed land in sustainable locations will be encouraged. Residential density will be determined by local character and good quality design.

Policy SS4 - Movement and transportation

- 2.36. New developments should be designed and located to minimise the impacts on the transport network; ensuring that journey times and the efficient and safe operation of the network are not detrimentally impacted.

Policy SS6 - Environmental quality and local distinctiveness

- 2.37. Development proposals should conserve and enhance those environmental assets that contribute towards the county's distinctiveness, in particular its settlement pattern, landscape, biodiversity and heritage assets.

Policy SS7- Addressing climate change

- 2.38. Development proposals will be required to include measures which will mitigate their impact on climate change.

Policy HD1- Hereford

- 2.39. Around 3,200 dwellings will be provided through the implementation of existing commitments, windfall development and the development of non-strategic sites

Policy H3 – Ensuring an appropriate range and mix of housing

- 2.40. Residential developments should provide a range and mix of housing units which can contribute to the creation of balanced and inclusive communities.

Policy SC1 – Social and community facilities

- 2.41. New development that creates a need for additional social and community facilities that cannot be met through existing social facilities - will be expected to meet the additional requirements through new, or extension of existing, provision or by developer contributions which meet the relevant tests of paragraph 204 of the NPPF .
- 2.42. Policy OS1 - Requirement for open space, sports and recreation facilities.
- 2.43. All new residential development will need to make appropriate provision for open space, sports and recreation facilities.

Policy OS2 – Meeting open space, sports and recreation needs

- 2.44. In order to meet the needs of the community, provision for open space, sports and recreation facilities will be sought, where appropriate.

Policy MT1 – Traffic management, highway safety and promoting active travel

- 2.45. Development proposals should incorporate the following principle requirements covering movement and transportation:
- Demonstrate that the strategic and local highway network can absorb the traffic impacts of the development without adverse impacts
 - Promote and where possible integrated transport connections and supporting infrastructure (depending on the nature and location of the site)
 - Ensure that developments are designed and laid out to achieve safe entrance and exit, have appropriate operational and manoeuvring space.
 - Have regard to both the council's Highways Development Design Guide and cycle and vehicle parking standards as prescribed in the Local Transport Plan.

Policy LD1 – Landscape and townscape

- 2.46. Development proposals should:
- Demonstrate that character of the landscape has positively influenced the design, scale, nature, protection and enhancement of

the setting of settlements and designated areas;

- conserve and enhance the natural, historic and scenic beauty of important landscapes and features, including Areas of Outstanding Natural Beauty, nationally and locally designated parks and gardens and conservation areas; through the protection of the area's character and by enabling appropriate uses, design and management;
- incorporate new landscape schemes and management to ensure development integrates appropriately into its surroundings; and
- maintain and extend tree cover where important to amenity, through the retention of important trees, appropriate replacement of trees lost through development and new planting to support green infrastructure.

Policy LD2 – Biodiversity and geodiversity

- 2.47. Development proposals should conserve, restore and enhance the biodiversity and geodiversity assets of Herefordshire.

Policy LD3 – Green infrastructure

- 2.48. Development proposals should protect, manage and plan for the preservation of existing and delivery of new green infrastructure. Identification and retention of existing green infrastructure corridors and linkages, including trees and hedgerows, as well as provision of new on-site green infrastructure will be supported where the network is enhanced.

Policy SD1 – Sustainable design and energy efficiency

- 2.49. Development proposals should create safe, sustainable, well integrated environments for all members of the community.

Policy SD3 – Sustainable water management and water resources

- 2.50. Measures for sustainable water management will be required to be an integral element of new development in order to reduce flood risk; to avoid an adverse impact on water quantity; to protect and enhance groundwater resources and to provide opportunities to enhance biodiversity, health and recreation.

Policy ID1- Infrastructure Delivery

- 2.51. Provision for new and/or the enhancement of existing infrastructure, services and facilities to support development and sustainable communities, will be achieved through a co-ordinated approach.

3.0 The Site

Context

Geographic context

- 3.1. The application site is situated off the Hafod Road to the eastern side of Hereford, some 2km from the city centre, and approximately 1.4km south east of Hereford train station. The River Wye lies approximately 0.4km south of the site. The site is accessed off Hafod Road via an existing tarmacadam entrance to the former car park.
- 3.2. The location of the application site is shown in Figure 3.1 - Site Location Plan.
- 3.3. Figure 3.3 show the extents of the site and its immediate neighbouring context.

Site Description

- 3.4. The application site is located at National Grid Reference SO 52529, 39569. The site covers approximately 0.42 hectares in size and is rectangular in shape. There are many TPO trees and groups of TPO trees located within the site and along its boundaries which are some of the main constraints for the proposed development. They also offer opportunities for creating a residential development with a strong landscape setting.
- 3.5. The site forms part of the Hafod Road Conservation Area, Figure 3.2. The majority of the Conservation Area is characterised by large houses fronting Hafod Road creating a strong building line and built frontage. The front gardens are relatively modest in depth compared to the rear gardens. However, they contain mature landscape in the form of trees, hedges and shrubs. The buildings sit within relatively uniform and rectangular plots. The plots are relatively narrow for the building size but are deep providing large rear gardens.
- 3.6. There has also been a number of more recent infill developments two of which are located immediately adjacent to the north and south of the site.
- 3.7. Access to the site from the road ramps up to a relatively flat plot with an average height of around 83.5 AOD.
- 3.8. The site is a relative anomaly to the character of the local area in that the buildings are set deep in the plot.



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Figure 3.1 Site Location Plan



Figure 3.2 Hafod Road Conservation Area Plan



Imagery © 2015 Google, Map Data © 2015 Google

Figure 3.3 Application Site

Site Photographs



Photo 3.1: Panoramic view looking towards the northern boundary with Brockington House beyond.



Photo 3.2: Panoramic view looking towards the west and south of the site

Historical Background and Land Use

History

- 3.9. A review of available historic maps shows the development of large, residential properties along Hafod Road taking place between 1888 and 1904. By 1904 development on the north side of Hafod Road extended almost to the western boundary of the Brockington House site, whereas to the south it met the junction with Old Eign Hill. The site remained as agricultural land, with an Old Clay Pit indicated further to the east of the site.
- 3.10. Brockington House appears on a map of 1928. It is set back much further from Hafod Road than other adjacent properties with a long, tree-lined drive. Woody vegetation is indicated along the southern and eastern boundaries, also providing an internal division to garden areas to the east of the house. To the north east of the house a small wedge of land is shown planted as a woodland area. A similar area is located to the west of the house, beyond a small outbuilding.
- 3.11. A map of 1973 shows an increase in tree cover along the Hafod Road boundary indicated as coniferous species. An additional building has been constructed slightly remote to the main house and linked by a path.
- 3.12. The site was first occupied by Herefordshire Council in the 1970s. The TPO plan of 1976 shows the site before the Council offices were extended. The linear building shown on the 1973 plan is identified as a Social Club, with a Putting Green and Social Club located immediately to the south.
- 3.13. Prior to the site being Council Offices it was used by West Mercia Police. Around the site the housing estate to the east, Quarry Road and Brockington Drive, has been developed. These houses are understood to have been developed for employees of West Mercia Police who were working at Brockington House.
- 3.14. The TPO plan of 1991 shows the Social Club demolished, replaced with car parking areas, and further parking spaces located to the south adjacent Hafod Road.
- 3.15. There have been no discernible changes to the building footprints or quantum of development on the site in recent years



Figure 3.4 Historical OS Plan 1928



Figure 3.5 Historical OS Plan 1973



Figure 3.6 Historical OS Plan 2014

Transport Links

- 3.16. In general the site benefits from good transport links.
- 3.17. By Road the site is accessed immediately off the Hafod Road. This road links to the A438 which leads to Hereford city centre to the west and Ledbury to the east.
- 3.18. Rail services are accessible within approximately 1.4km north west of the site. Hereford and Worcester line provides a direct link to Worcester Foregate Street with connecting links to Birmingham New Street Station, Cheltenham, Gloucester, Bristol, Newport and Cardiff.

Local Facilities

- 3.19. There are a number a number of key amenities and facilities in close proximity of the site:

- Hampton Dene Primary School
- St Paul's C of E Primary School
- The Bishop of Hereford Bluecoat School
- The Quarry Recreation Ground and Play Area
- Tupsley Scout and Guide HQ
- Parade of shops on Quarry Road includes McColls convenience store, Threshers off-licence, fish and chip shop, and Cascade hair and beauty.
- Rose & Crown pub, Ledbury Road
- Esso petrol filling station and Tesco Express, Ledbury Road
- Texaco petrol filling and Spar, Ledbury Road
- Parade of shops on Old Eign Hill includes Post Office, Premier convenience store, Beautonics Complimentary Therapies and Headraisers hair salon.

Key

- Application Site
- - - Railway
- A Road
- B Road
- River Wye

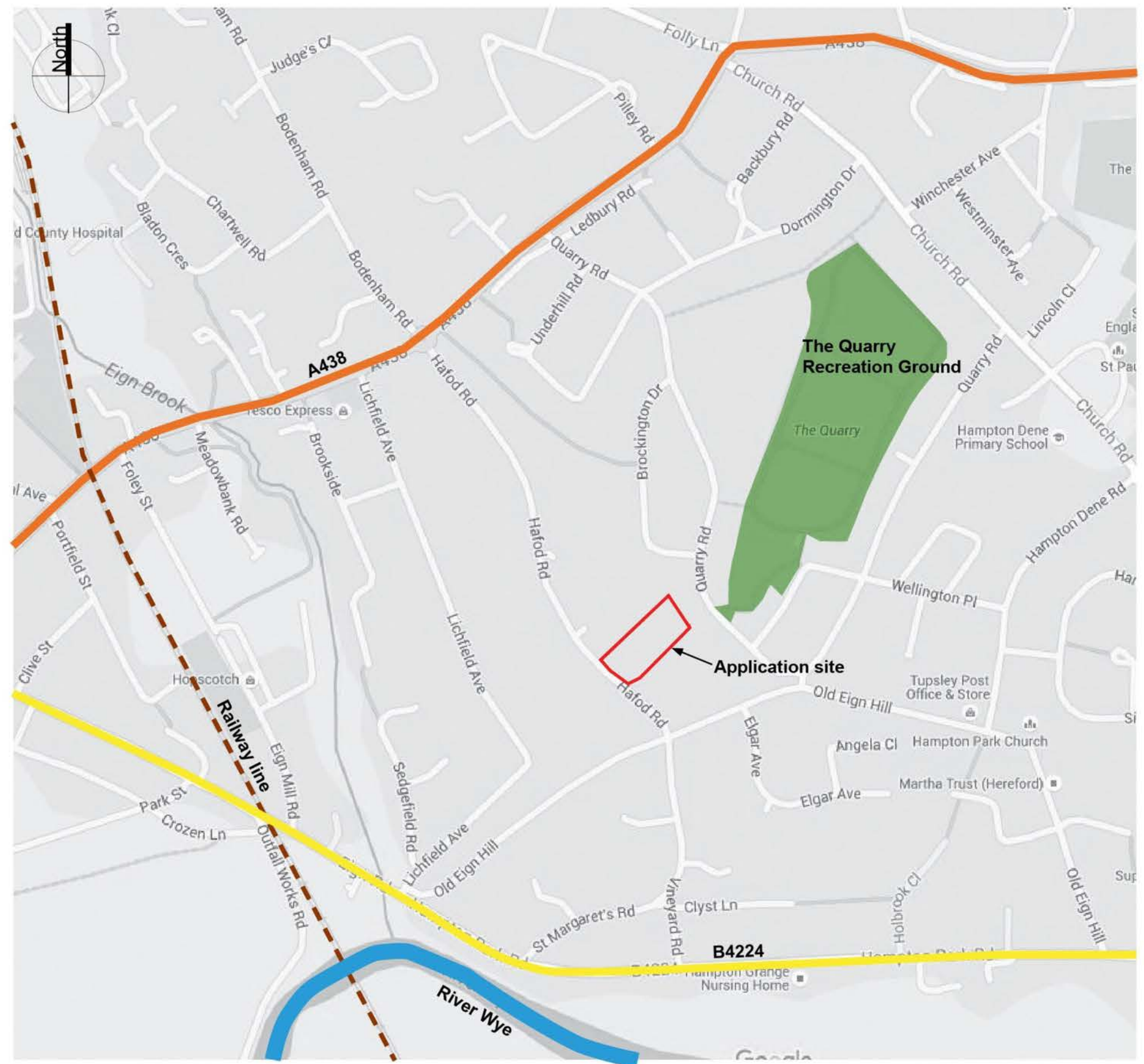


Figure 3.7 Transport Links Plan

Topography

Levels

- 3.20. The site sits above the adjacent Hafod road with the entrance way ramping up almost 2m into the site. Once entered into the application site it is relatively flat ground with an average height of approximately 83.5m AOD.

Geology

- 3.21. The British Geological Survey shows the site to be underlain by superficial deposits of River Terrace Deposits comprising of Sand and Gravel. This is underlain by bedrock geology of Raglan Mudstone Formation, comprising of interbedded Siltstone and Mudstone.

- 3.22. The sequence of strata encountered beneath the site and the general soil profiles for the entire site are as follows:

- Topsoil
- Clay (Superficial)
- Raglan Mudstone

Topsoil - this encountered a depth of between 0.25m and 0.6m and generally comprised dark brown silty clayey topsoil with occasional gravel and fine roots.

Clay (Superficial) - this was encountered below the topsoil to a maximum depth of 2.4m. It comprised stiff becoming hard brown Clay with gravel of Quartzite and Mudstone and lenses of sand.

Raglan Mudstone - This material was encountered below the superficial Clay and proven to a depth of 2.5m. It comprised very stiff to hard red brown silty Clay with fine gravel of mudstone.

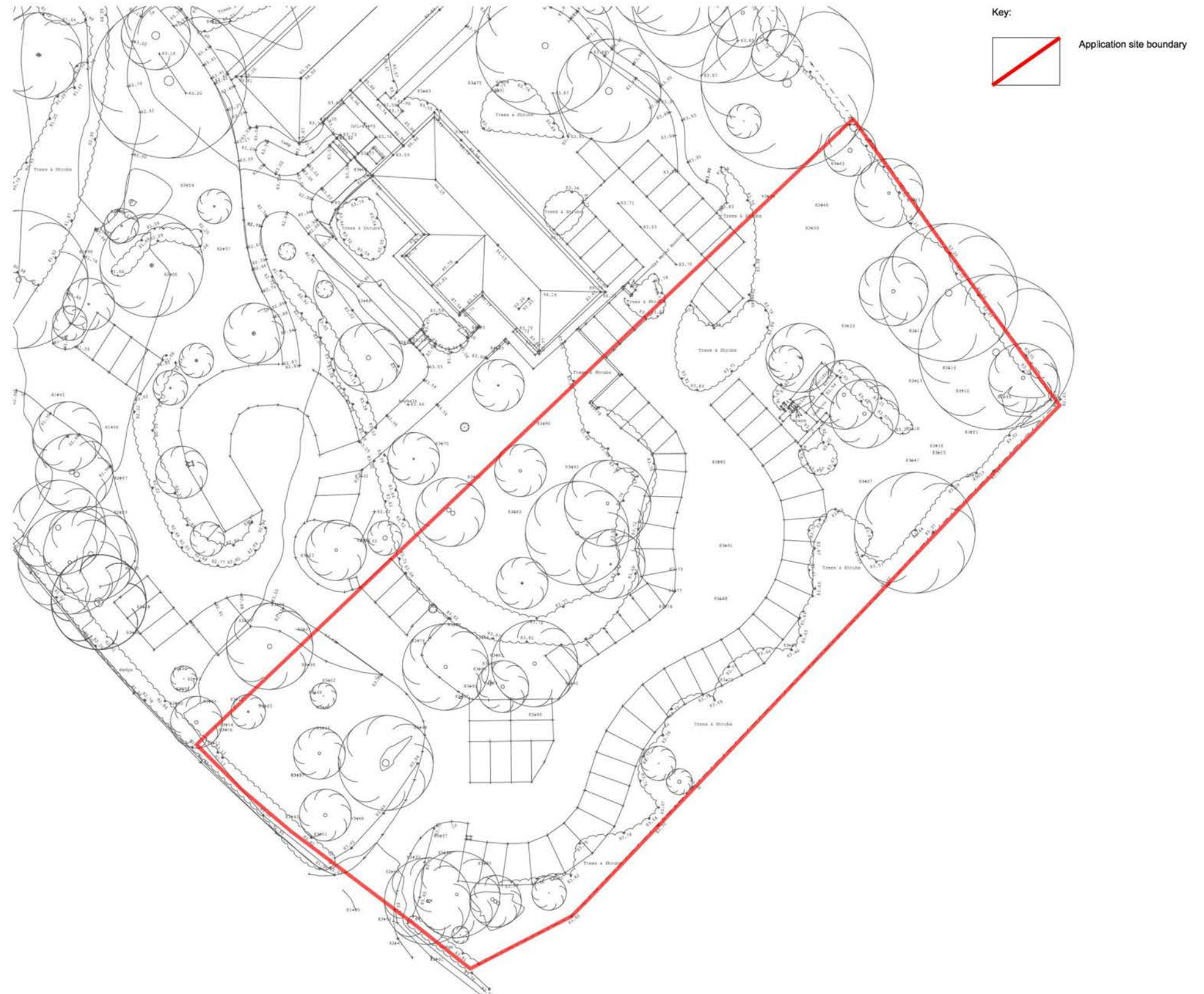


Figure 3.8 Topography Survey

4.0 Constraints & Opportunities

Site Analysis

General

- 4.1. The application site was assessed by the design team in detail. This process culminated in the identification of key constraints and opportunities that have subsequently informed and directed the design process.
- 4.2. A number of key constraints and opportunities were identified. These are illustrated in the plan opposite and described in detail below.

Landscape and Site Features

Trees and Vegetation

- There are a number of individual and groups of trees protected under tree preservation orders (TPOs) which will need appropriate care and retention. In addition the trees are protected due to the site's Conservation Area status. The trees therefore are one of the key constraints to the redevelopment of the site.
- The tree survey identifies that the trees along Hafod Road and those on the southern and eastern boundaries are of high amenity value. They provide a significant landscape element to the character of the site and Conservation Area. The trees within the middle areas of the site planted around the car park and internal access roads, although of some amenity value, are as a whole of less importance to this character.
- The southern site boundary which lines Hafod Road has a mature dense hedgerow on a small embankment. This provides good visual containment from the adjacent main road.

Watercourses and Drainage

- There are no known water courses in the vicinity of the site. Surface drainage to the area of the site contained within the Application Boundary is via a single gully.

Biodiversity

- There is no evidence of protected species on the site and none of the habitats on the site are considered to be of high ecological value. The trees provide habitat and foraging routes for both bats and birds.

Topography

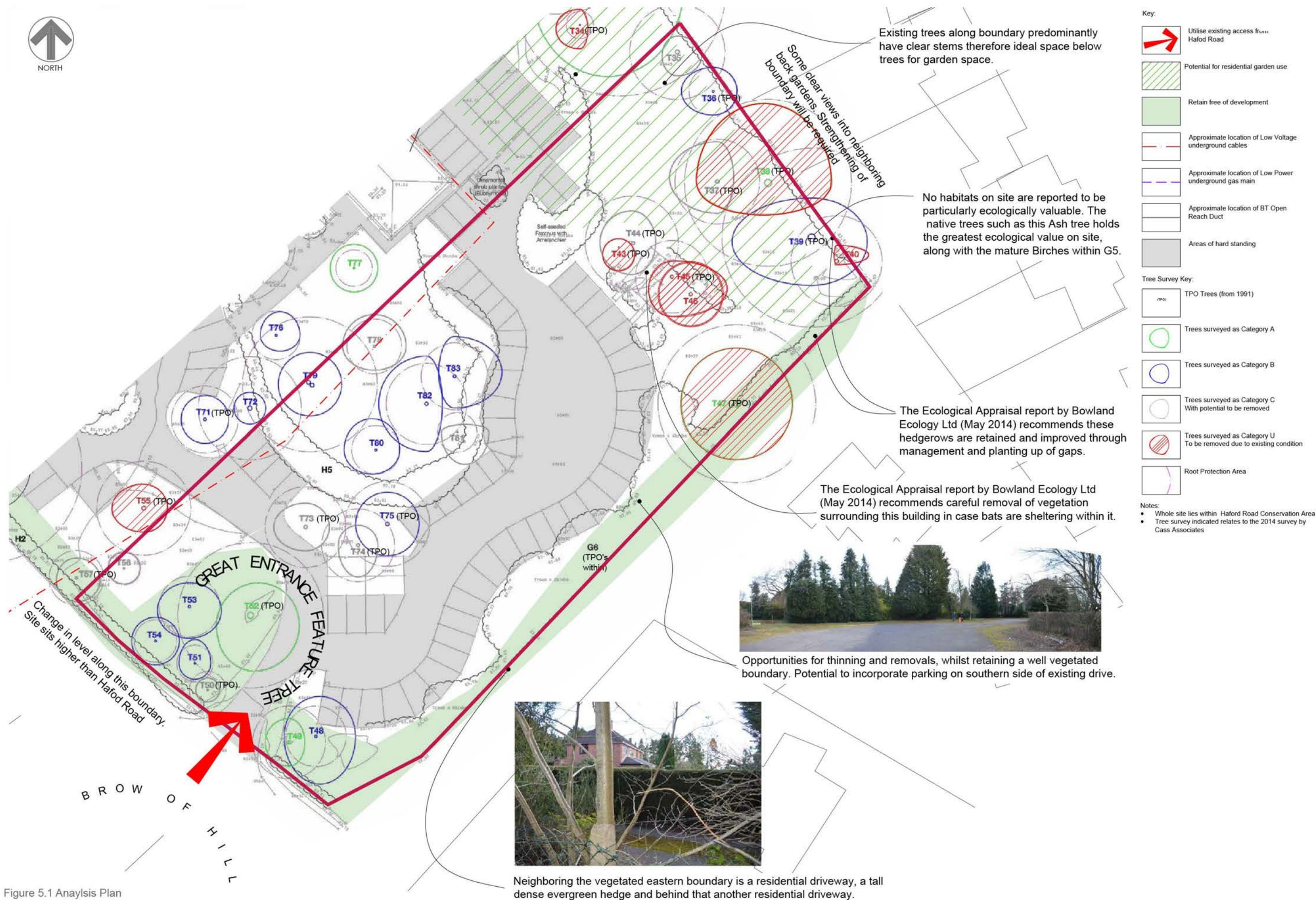
- The site sits higher than Hafod Road by just under 2m. Once into the site the ground is relatively flat with an average height of around 83.5m AOD.

Visibility and Views

- The only publically accessible view into the site is from Hafod Road and that is limited to the width of the access road. The level change combined with vegetation within the site also partially obscures any open views. The existing mature Holly hedge on the raised grass embankment to the front of the site screens all other views from the road.
- The eastern boundary is well vegetated and prevents views in and out of the site. The species also restrict light along this side of the site.
- Views from the residential properties which back onto the site from the north are limited to 1st floor windows of the rear elevations. Garden planting and fencelines prevent direct views into and out of the site at ground level.

Access

- Existing tarmac access off Hafod Road will be utilised as the sole entrance to the site.



Architectural Styles in the Locality





5.0 Surveys

Technical Studies and Surveys

Site Assessment

5.1. A comprehensive series of assessments have been carried out on the site (which includes the application site) and surroundings. These assessments principally include:

- Arboricultural Survey
- Picus survey - Decay Detection Report
- Ecological Survey
- Ground Investigation
- Utility Search and Site Survey
- Flood Risk Assessment

5.2. These have identified key constraints and opportunities afforded to the site which have subsequently informed and guided the design process.

5.3. A summary of these are provided on the following pages.

Arboricultural Survey

5.4. Adrian Hope Tree services were appointed to undertake a review and update of a previous tree survey undertaken by Cass Associates on behalf of Herefordshire Council. The original survey and the updated Tree Schedule and Tree Constraints Plan are included as separate documents as part of the planning application.



Figure 5.1 Tree Constraints Plan - Adrian Hope Tree Services

Picus Survey - Decay Detection Report

- 5.5. The existing wider site has four trees which required a decay detection and analysis by means of a Picus Sonic Tomograph. Two of these trees are relevant to this application.
- 5.6. Decay in trees is of major concern in relation to human safety and damage to property. Significant decay can eventually weaken stems, branches or roots enough to increase the chance of mechanical failure. Decay is a natural process and commonly occurs in trees without causing structural weakness. It is therefore inappropriate to regard a tree as hazardous merely because decay has been identified.
- 5.7. It is therefore important to be able to evaluate the tree to determine the extent of the decay so that informed management decisions can be made. This will ensure that hazardous trees are correctly identified and relatively safe trees are not removed or unsuitably pruned.
- 5.8. The trees inspected are an early mature Copper Beech tree situated on the south eastern boundary of the site growing adjacent to a residential property. The decay detection report highlights pronounced swelling on the lower stem related to the graft line. There is obvious exudation occurring from the graft union on the north east side of the main stem.
- 5.9. The other surveyed tree was a Mature Red Oak situated close to the east site boundary and adjacent to residential gardens. There were many external indications of internal decay present at the base of the main stem of the surveyed oak including Ganoderma fruiting bodies.
- 5.10. The report concluded that the presence of Ganoderma (although no formal identification) it is likely the extent of decay is more significant below ground level. The decay usually affects the lower stem and roots and more rarely high in the stem. This decay can lead to ductile fracture and wind-throw after root fracture.
- 5.11. All of the trees surveyed have a limited safe life expectancy with a moderate to very high risk of complete tree failure.

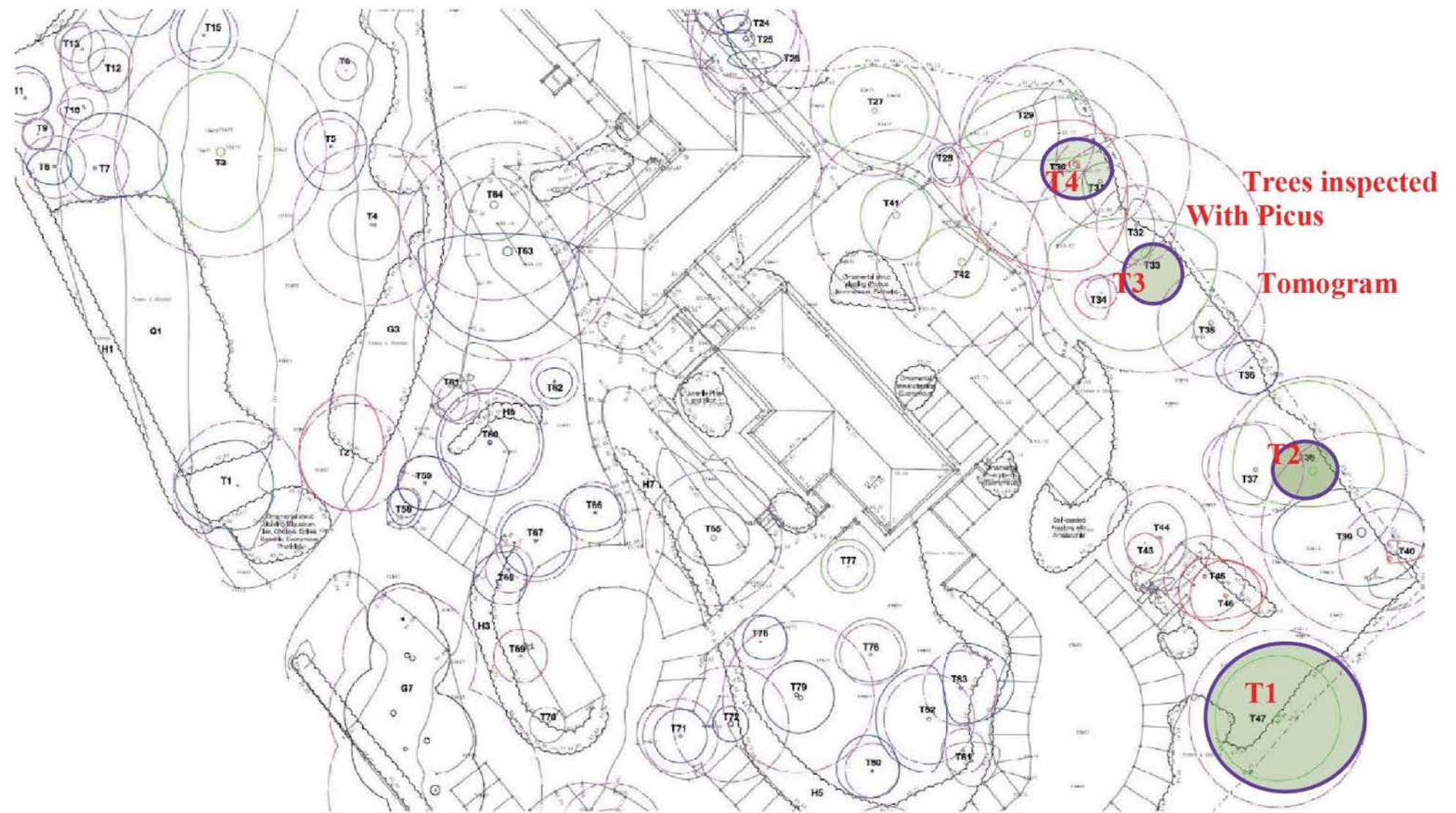


Figure 5.2 Picus Survey Plan - Decay Detection

Tree No:	01	Species:	Copper Beech Fagus sylvatica ‘purpurea’
Age:	Early Mature		
Form:	Group tree with suppressed canopy towards neighbouring trees and full crown towards the light.		



Comments: Evidence of dysfunctional bark on north western side of stem above graft line.



There is obvious exudation occurring from the graft union on the North east side of the main stem.



Position of Tomogram(s) taken: Through visible graft line on main stem
Level of measurement above ground level: 140cms

Tomogram Tree no 1

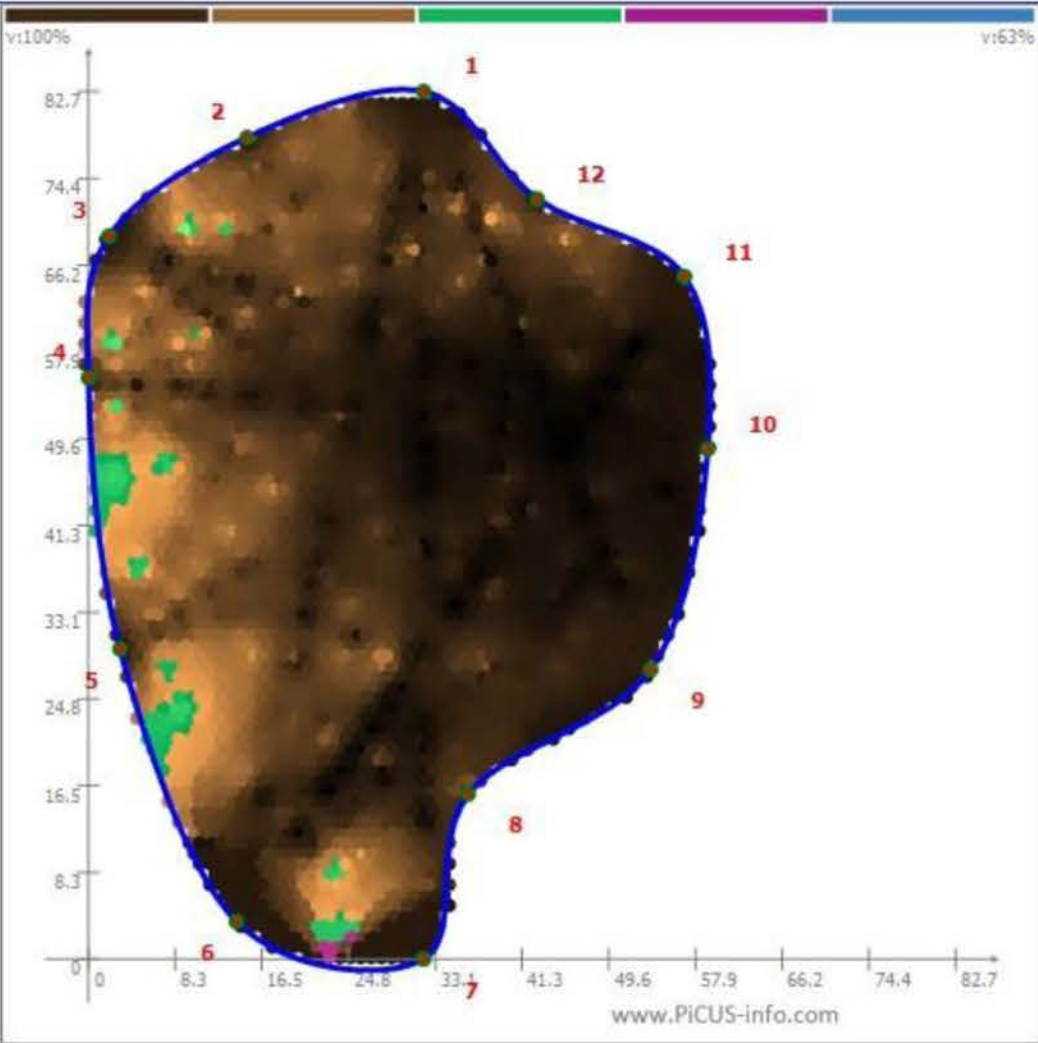


Figure 5.3 Extract from report



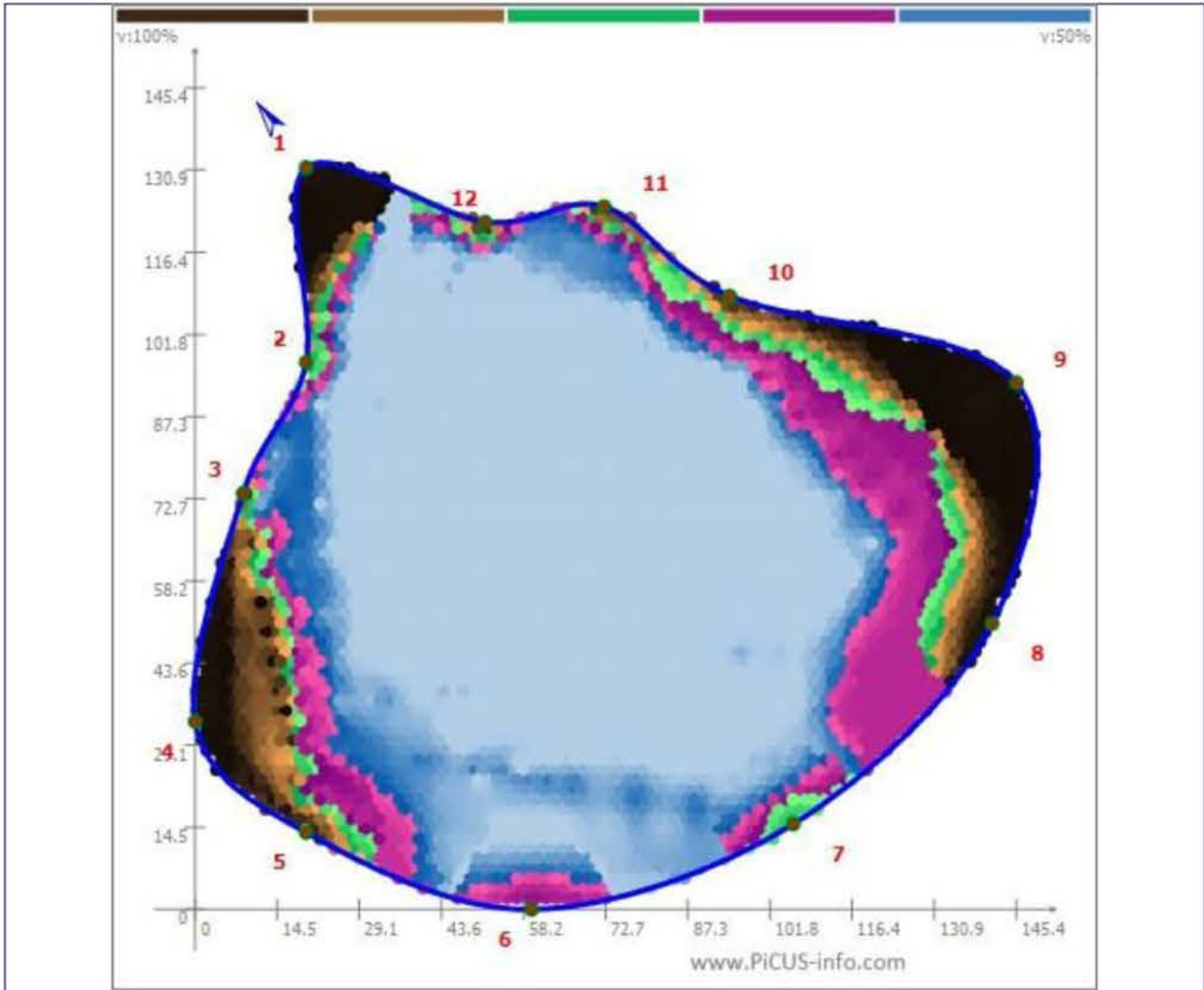
Tree No:	02	Species:	Red Oak	<i>Quercus rubra</i>
Age:	Early Mature			
Form:	Group tree with suppressed canopy towards neighbouring trees and full crown towards the light. One side crown due to reduction of branches over residential gardens.			
				
Comments:	Fungal fruiting bodies (Ganoderma spp.) present at the base of the main stem.			
				
Position of Tomogram(s) taken: At the base of the main stem				
Level of measurement above ground level: 15cms				

Figure 5.4 Extract from report

Tomogram Tree no 2



Ecological Survey

- 5.12. A new preliminary ecological survey was undertaken in June 2016 by Countryside Consultants Ltd. It concluded the proposal would have no significant ecological impact. The non-technical summary is included below.

What	<ul style="list-style-type: none"> Preliminary Ecological Appraisal of plans for 4 new detached residential dwellings, and small apartment, Brockington House, Hafod Road, Hereford, a site being promoted separately to an application for a new residential care home.
Why	<ul style="list-style-type: none"> Given the site's location and surrounding habitats, there was potential for protected species and habitats to be impacted.
How & When	<ul style="list-style-type: none"> Phase 1 habitat survey in June 2016 by experienced ecologist and appraisal to best practice guidelines drawing evidence from aerial photographs, desk-based tools and typical associations from the habitats present on the site and surrounding land.
Key findings	<ul style="list-style-type: none"> Site comprises a mix of regularly mown amenity grassland, small discrete areas of ornamental / native shrub planting, native hedgerow, scattered mature broadleaved and coniferous trees, hard standing and a small outbuilding. Trees and hedgerow provide habitat suitable for nesting birds, particularly song thrush, house sparrow and dunnoek, and foraging bats. No suitable opportunities for roosting bats. No suitable habitat for great crested newts and reptiles. Suitable foraging habitat for hedgehog. No signs of use of site by badgers and no badger setts on or within 30m of site.
Significance	<ul style="list-style-type: none"> All habitats on site considered to be of low ecological value. Trees and hedgerow likely to have some value for nesting birds making them of local value. Site may support bats (foraging only). Likely absence of great crested newt and reptiles Potential for encountering hedgehog
Potential impacts	<ul style="list-style-type: none"> Loss of approximately 0.3ha of common and widespread habitats of low ecological value, other than for species they may support, with low scale impact. Loss of bird nesting and foraging habitats. Low risk of harm or injury to hedgehog. Potential for fragmentation of hedgehog foraging habitat locally.
Measures to avoid or mitigate for potential impacts	<ul style="list-style-type: none"> Timing of removal of vegetation and check prior to vegetation removal to avoid potential impacts to nesting birds and hedgehog. Creation of small holes under new fencing to allow movement of hedgehog across the site. Protection of retained vegetation and trees from light pollution during construction. Compensatory replacement planting of flower-rich/wildlife-friendly and native tree, shrub and perennial planting. Production and implementation of tree protection plan.
Opportunities for net enhancement	<ul style="list-style-type: none"> The inclusion of bat and bird tubes within new dwellings. The placement of bat and bird boxes on retained mature trees. The creation of habitat piles and hibernacula, from trees felled within the site if possible, for hedgehogs, invertebrates and reptiles.
Further survey requirements	<ul style="list-style-type: none"> None
Conclusion	<ul style="list-style-type: none"> Subject to precautionary working, retention of as much tree cover as possible and enhancement measures, the proposed scheme is considered to have no significant ecological impact and will lead to a proportionate net gain to biodiversity.

Ground Investigation

- 5.13. Shire Geotechnical were appointed to carry out a ground investigation to determine the ground conditions below the proposed development site.
- 5.14. The work included Window Sample Boreholes, Trial Pits, CBR Testing, Percolation Testing, Gas Testing and associated in situ and laboratory testing. The report is carried out generally in accordance with BS 10175 (2011) and CLR 11 (2004), and presents full factual records of the site work, the ground conditions encountered and laboratory test results.

Ground Conditions

- 5.15. Beneath the surface Topsoil (maximum depth 0.6m) the soil encountered was generally stiff becoming very stiff Clay with fine to coarse gravel of quartzite over red brown silty Clay consistent with the Raglan Mudstone Formation.
- 5.16. SPT N values range between 24 and 50+ within the natural materials and it was not possible to penetrate below 2.5m with the Window sampler due to SPT refusal (N > 50 blows).
- 5.17. The clay has a medium shrinkage potential. Groundwater was not encountered within any of the exploratory holes.

Proposed Foundations

- 5.18. The natural Clay at depth provides a suitable formation level to sustain loads without significant settlement and a ground bearing pressure in excess of 150kN/m² can be expected at depths of 1.0m below existing ground level.
- 5.19. Due to the presence of trees, traditional foundations should be in accordance with the NHBC document 'Building Near Trees' based on a medium shrinkage clay and formed below any visible tree roots.
- 5.20. Alternatively a piled foundation solution should be adopted with the piles designed by a specialist piling contractor.

Floor Slab

- 5.21. Floor slabs should be suspended where the slab is constructed in an area within the zone of influence of trees/vegetation. Alternatively ground bearing floor slabs could be adopted where cohesive soil is excavated, removed and replaced by a suitable granular layer.

Sulphate Design

- 5.22. Based on the ground conditions and the chemical analysis carried out on the soil and groundwater, it is recommended that for foundations the Design Sulphate Class for the site, as defined in BRE Special Digest 1(2005), are taken as [DS-1], and the Aggressive Chemical Environment for Concrete (ACEC) site classification be taken as [AC-1].

Contamination

- 5.23. The soil test results indicate no elevated levels of contamination (above the recommended assessment criteria for a commercial or residential site), and no remediation is required.
- 5.24. Due diligence is required during the construction period, and should any evidence of contamination be found, appropriate investigation and/or action should be taken.
- 5.25. As with all construction sites, personnel working on the site during the construction period should be encouraged to maintain a high standard of personal hygiene and on site washing facilities should be available.

Waste Acceptance Criteria (WAC) Testing

- 5.26. The results indicate the Made Ground is suitable for an inert landfill.

Radon

- 5.27. No radon protection is required

Pavement Construction

- 5.28. The existing access road and car park generally comprised 100mm tarmac over a compact 200mm to 240mm hardcore layer over gravelly Clay sub grade.
- 5.29. The Dynamic Cone Penetrometer testing carried out on the sub grade indicate a CBR value of between 9% and 12%.

Soakaways

- 5.30. The BRE Soakaway Test and Falling Head test revealed insufficient uptake of water and an infiltration rate could not be calculated.
- 5.31. The tests were carried out in a 1.6m pit (SA1) and a 2.0m deep Borehole (SA2) and both failed to infiltrate into the natural ground after 24hours.

5.32. Due to these results, the general cohesive soils at depth the site is not suitable for soakaways.

Water Pipes

- 5.33. The soil test results were compared to the threshold concentrations (including hydrocarbons) from the UKWIR publication 'Guidance for the selection of water supply pipes to be used in Brownfield sites'.
- 5.34. The test results generally indicate the soils are suitable for all water main pipe material.

Utility Survey

5.35. A single Utilities Services drawing has been created which incorporates the information gathered from the statutory service providers as well as an on site utility survey undertaken by Shire Geotechnical. This is included as a separate drawing P0528-DR-3-001 as part of the planning application.

Flood Risk Assessment

5.36. As part of the ground investigation report, Shire Geotechnical confirmed that the highest risk of flooding on site is classed as *very low*. Although the site is located within 250m of an Environment Agency Zone 2 floodplain, it should be noted that the site sits at almost the highest elevation on Hafod Road



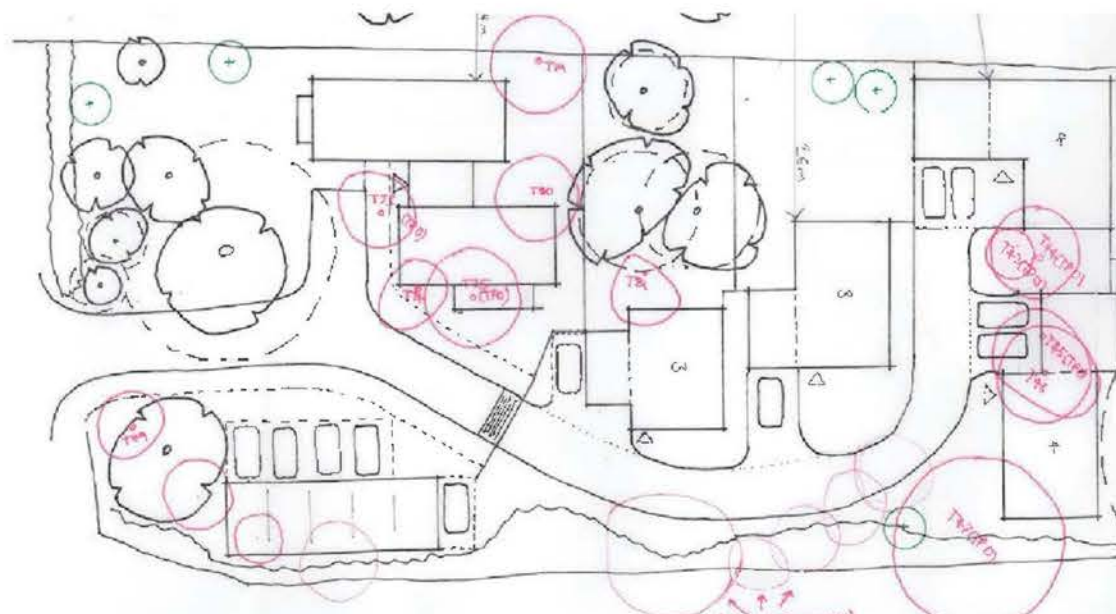
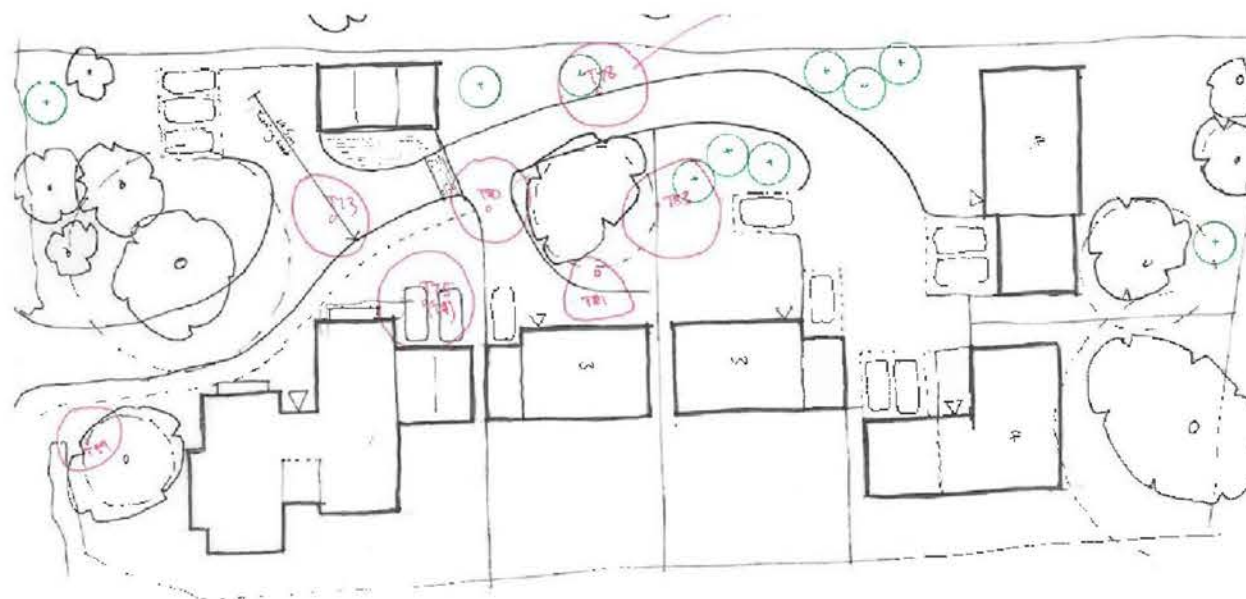
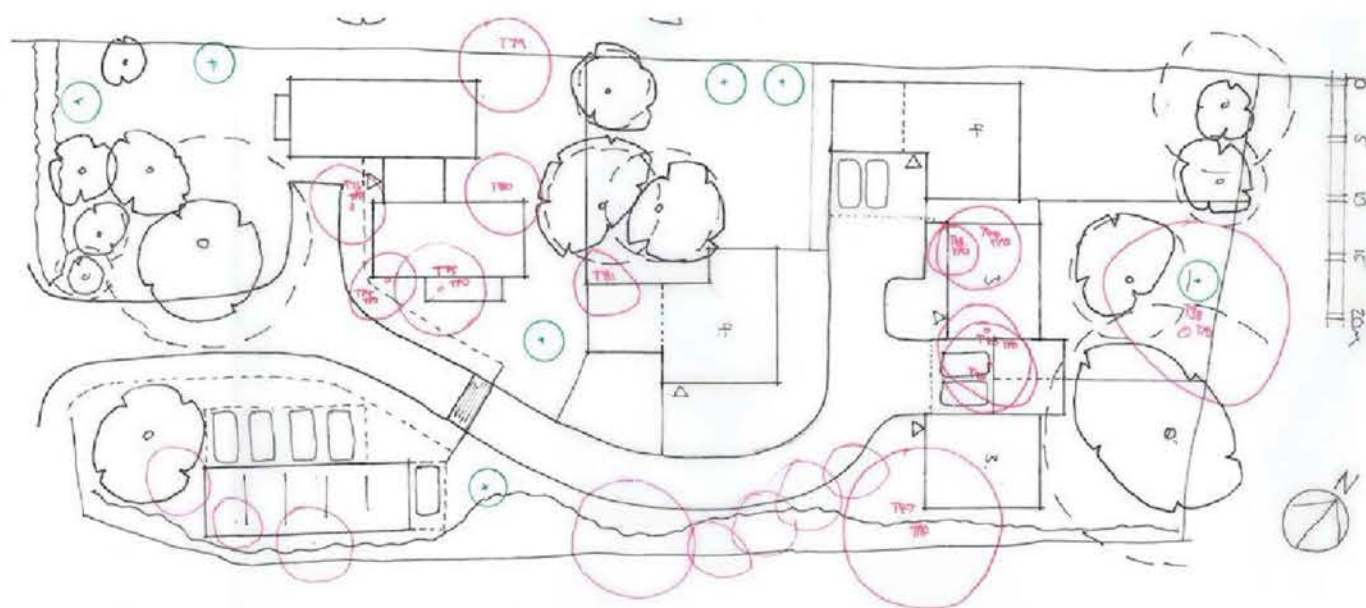
Figure 5.5 Utility Services

6.0 Design Development

Development of Site Layout

Site Layout

- 6.1. The basic principle of the design and layout is focussed on achieving the most efficient and most usable amount of space for each dwelling. The objective was to create a low density mix of residential accommodation. The retention of as many high quality trees on site was also a main focus in order to protect and enhance the landscape setting for these dwellings.
- 6.2. With the existing access being retained two options evolved for the route of the main drive. The first considered utilising the existing hard standing along the southern side of the plot. The second routed the driveway along the northern side of the plot. Other factors that contributed to the preferred option choice included providing south facing rear gardens where possible and maximising the separation distance between houses and the potential neighbouring development site to the north.
- 6.3. After considering numerous sketch options it was decided that the main access drive was best suited to run from the existing entrance along the northern boundary. The driveway plus associated landscaped areas provides a good separation between development sites ensuring there are no significant overlooking issues. The arrangement of houses allows large rear gardens for each property which ties in with the surrounding residential area. The original aspiration was to provide a garage for each dwelling within the site.
- 6.4. Through the pre application process with the planners and the Council's consultant arboriculturalist, a request to carefully consider the retention of the TPO'd Evergreen Oak (T75) located in a central position was raised. This tree was of particular importance as it was considered an important focal point as you enter the site from Hafod Road. It was agreed that the trees surrounding the oak could be removed which would allow the oak to flourish and establish its true form. The proposed layout was re-designed to accommodate the retention of this tree.
- 6.5. The quantity and position of garages for the apartment block was then considered in detail. Factors taken into account as part of the review of this element included allowing sufficient space for a turning head for large vehicles, respecting the root protection areas of retained trees both within and adjacent to the application boundary and ensuring appropriate access in and out of garages.



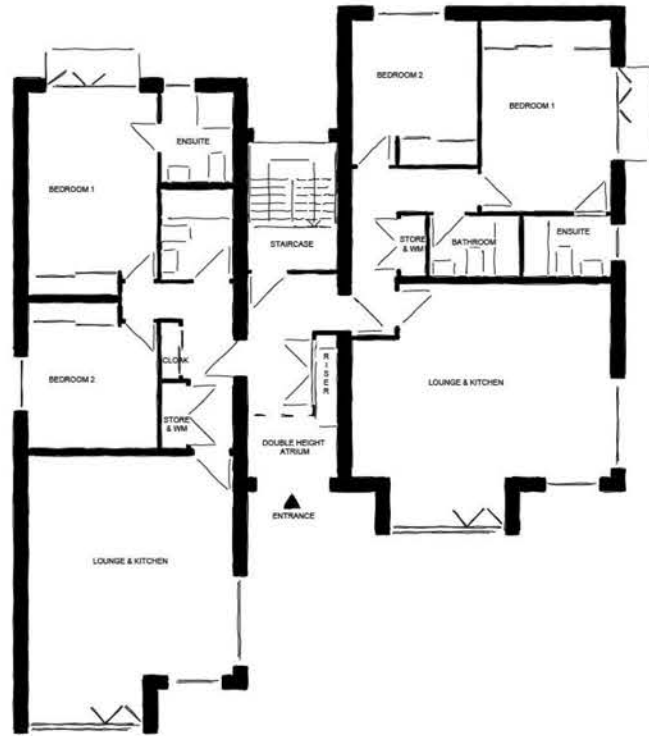


Layout Revision (D)

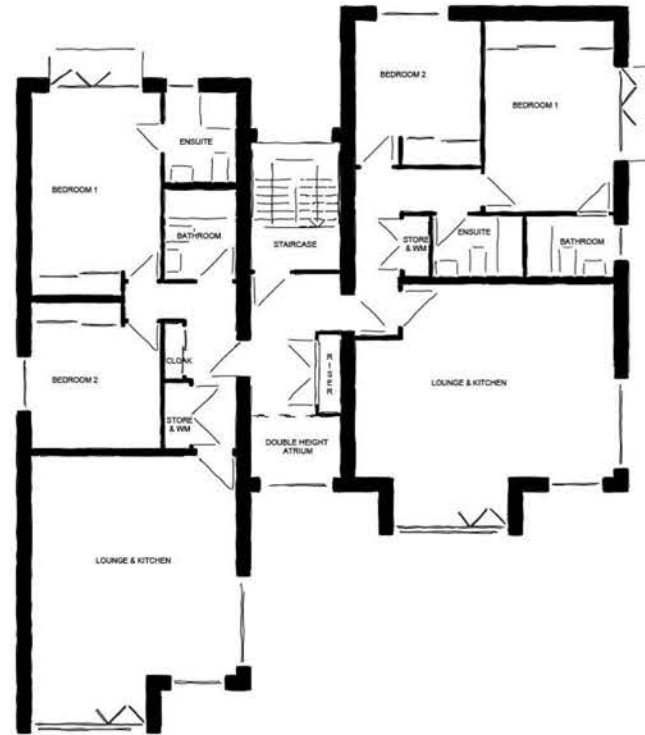


Layout Revision (A)

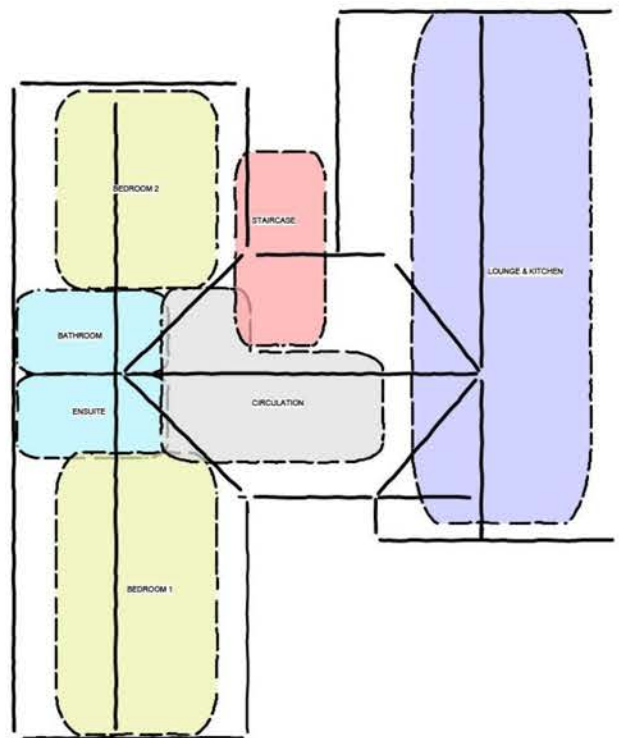
Initial Apartment Floor Plan Layouts



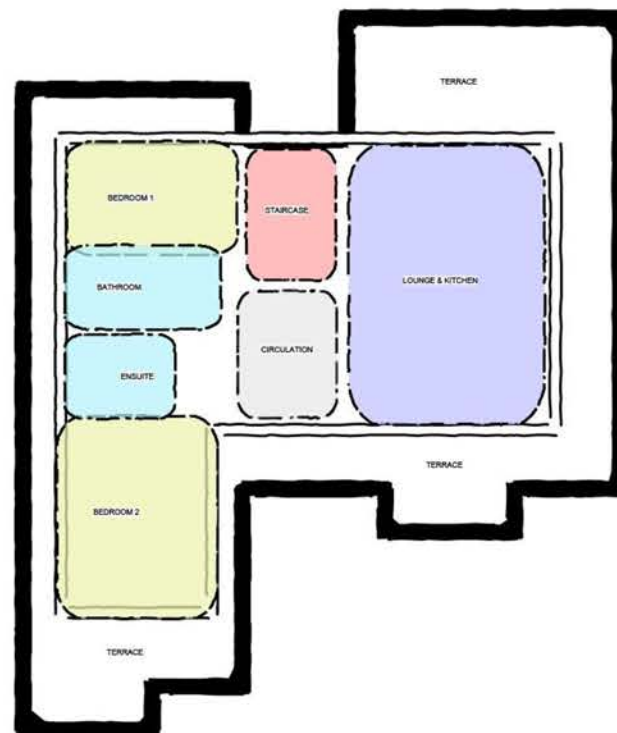
GROUND FLOOR CONCEPT - ENSUITE TO BOTH APARTMENTS
1:50



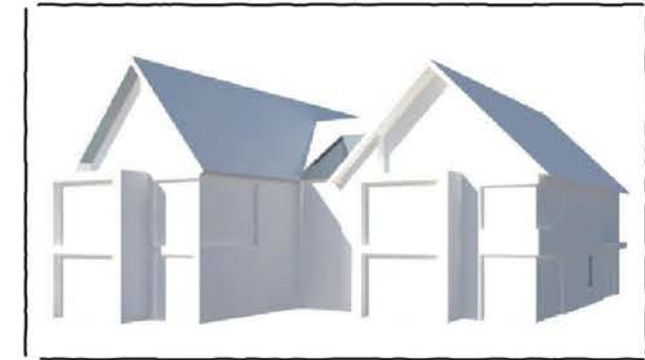
FIRST FLOOR CONCEPT - ENSUITE TO BOTH APARTMENTS
1:50



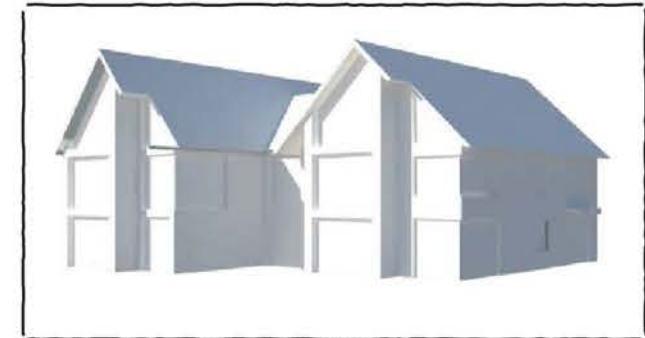
THIRD FLOOR ADJACENCY BASED ON STEEP PITCHED ROOF (40-50 DEGREES)
NTS



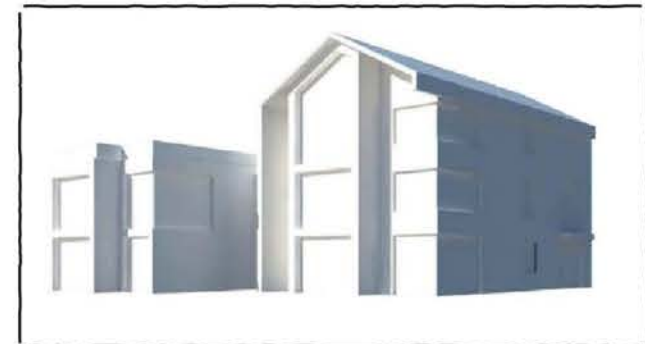
THIRD FLOOR ADJACENCY BASED ON FLAT ROOF
NTS



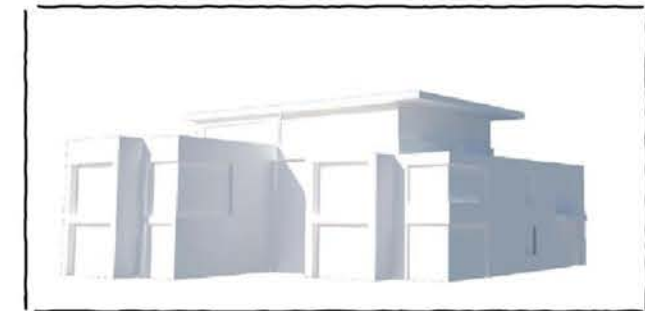
MASS MODEL - STEEP ROOF



MASS MODEL - STEEP PITCHED ROOF - GABLES EXTENDED TO RIDGE



MASS MODEL - SHALLOW PITCH & FLAT ROOF: 3 FULL STORIES. The layout of the 3rd floor of the right wing will be identical to lower floors. The flat roof of the second floor will provide a roof top terrace for the third floor apartment



MASS MODEL - FLAT ROOF

Initial House Floor Plan Layouts

Buildings

- 6.6. The building layout has been developed to establish the most efficient and sustainable use of space and to achieve a high energy efficiency for each dwelling. This was of particular importance for achieving the desired luxury high end development plots.
- 6.7. The floor plans were reviewed and simplified over the course of the design process to form comfortable, buildable and energy efficient structures. As shown through the iteration process the dwellings become increasingly refined and simple in form in order to ensure a high build quality and sustainable performance.
- 6.8. With the retention of the Evergreen Oak (T75), the apartment block evolved to become more balanced with a roof structure that responded to the existing residential properties fronting onto Hafod Road.

Massing and Scale

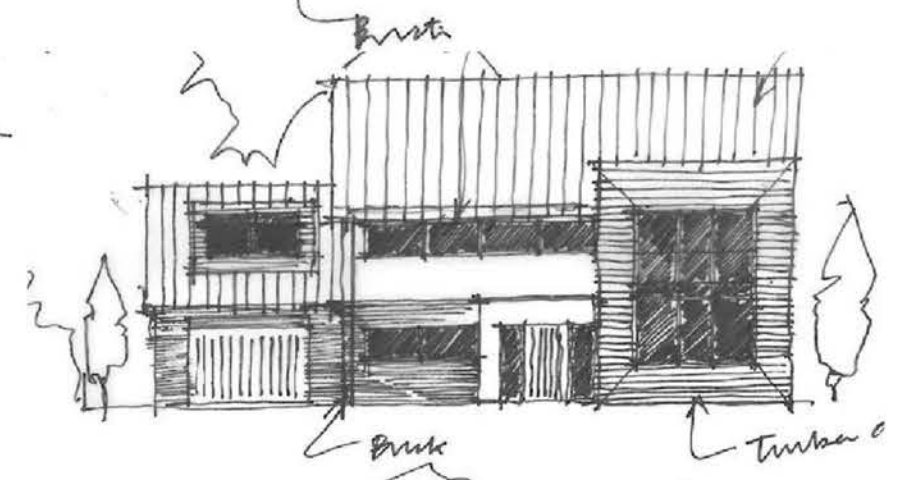
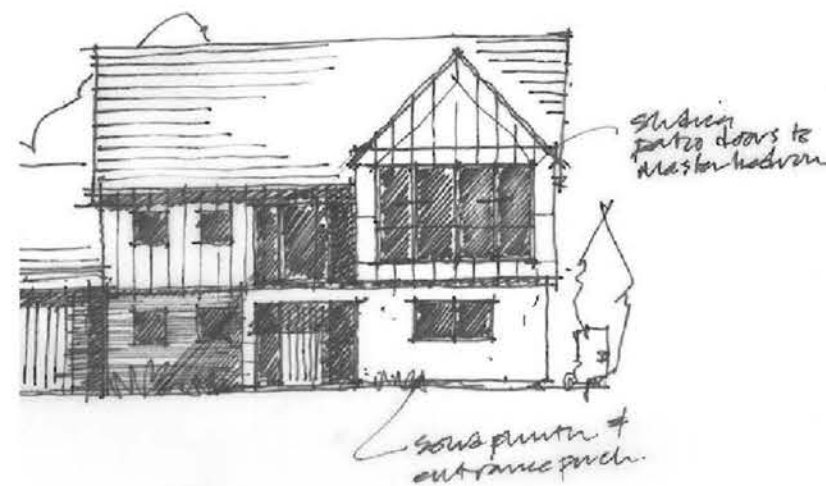
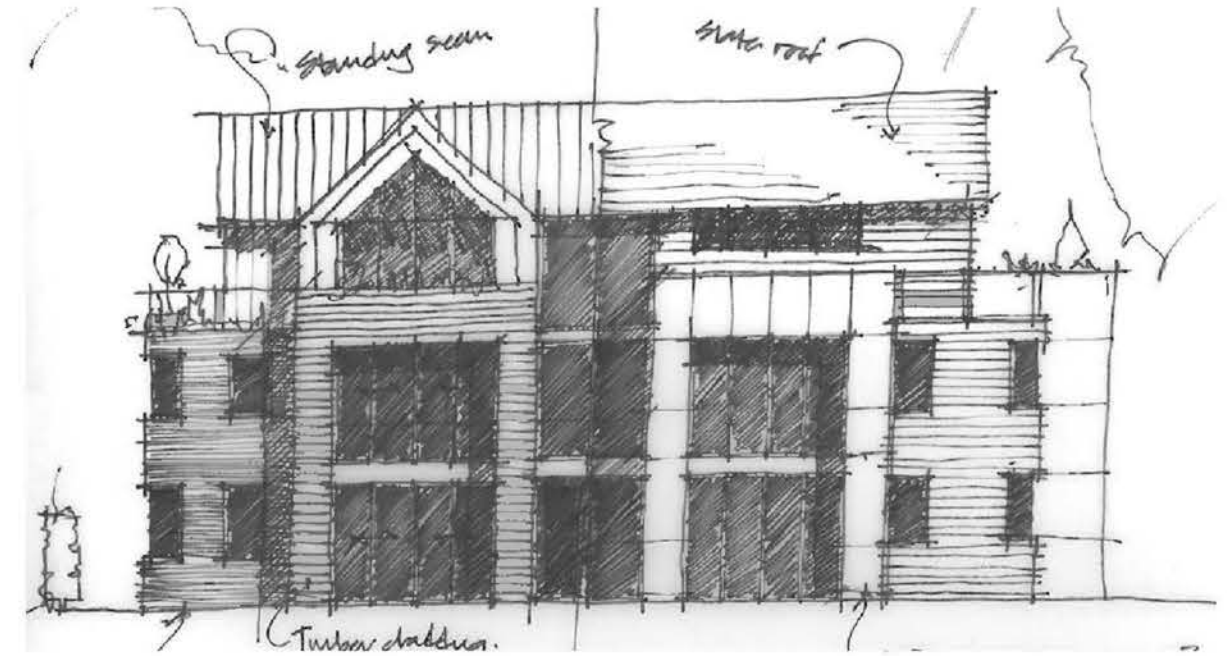
- 6.9. The massing of the proposed development has taken into account the existing context of the site. The mass and form of the apartment block was explored first. Existing houses fronting onto Hafod Road are typically tall villas of 2 to 3 storeys. The 3rd storey is often set within the roof space. The images on the previous page demonstrate how different roof styles were explored. The approach in this instance was to respond to the form of the properties in close proximity to the site.
- 6.10. An exercise to understand the impact of the development (especially the apartment block) on to Hafod Road was undertaken. This indicated that only the apartment block would be visible onto Hafod Road through the tree canopies and its impact was not overpowering. In fact it was thought that the apartment block provided a great addition to the current Hafod Road street scape, helping to balance the massing of built form on either side of Hafod Road.
- 6.11. The apartment block has been designed as a 2.5 storey unit ensuring that the roof pitch is similarly steep to those located opposite. The four houses are all 2 storey and have ridge heights of less than 10m above ground level. The ridge line of Brockington House is approximately 11.5m above ground level so the proposed scheme is considered to be in keeping with the surrounding built form.



Precedent Images



Exploring -Elevational Styles



PLOTS 1 & 2 - 4 BED HOUSE

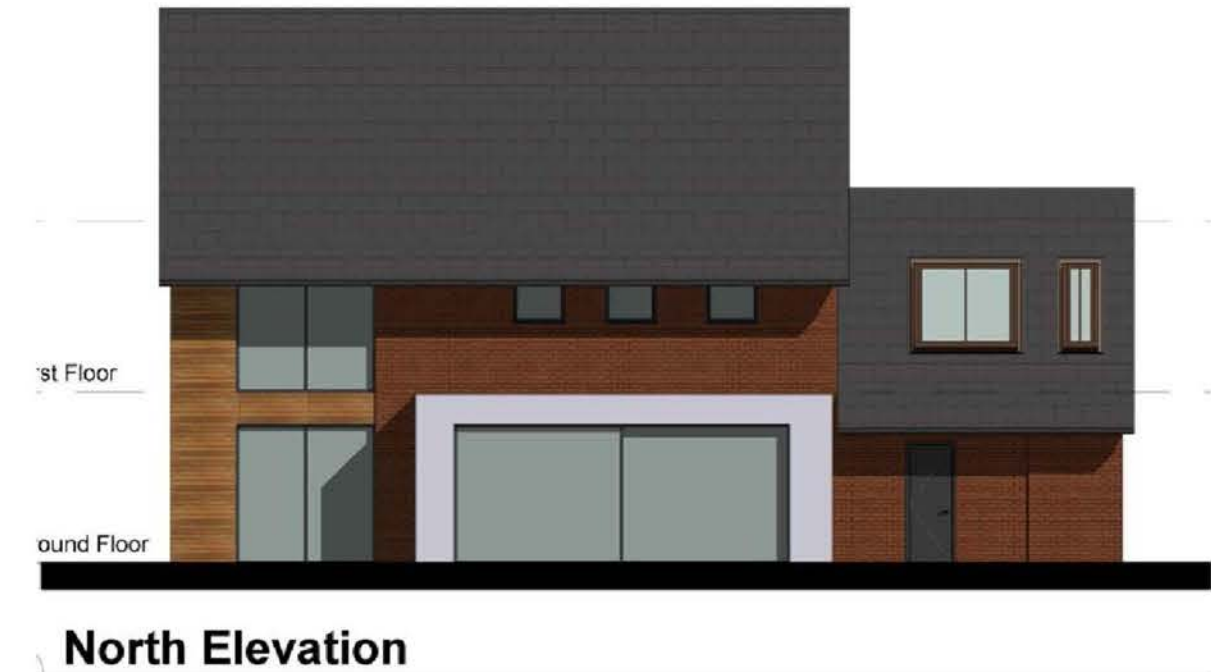
Exploring materials and form



2 Level 0 - Ground Floor
1 : 100



3 Level 1 - First Floor
1 : 100



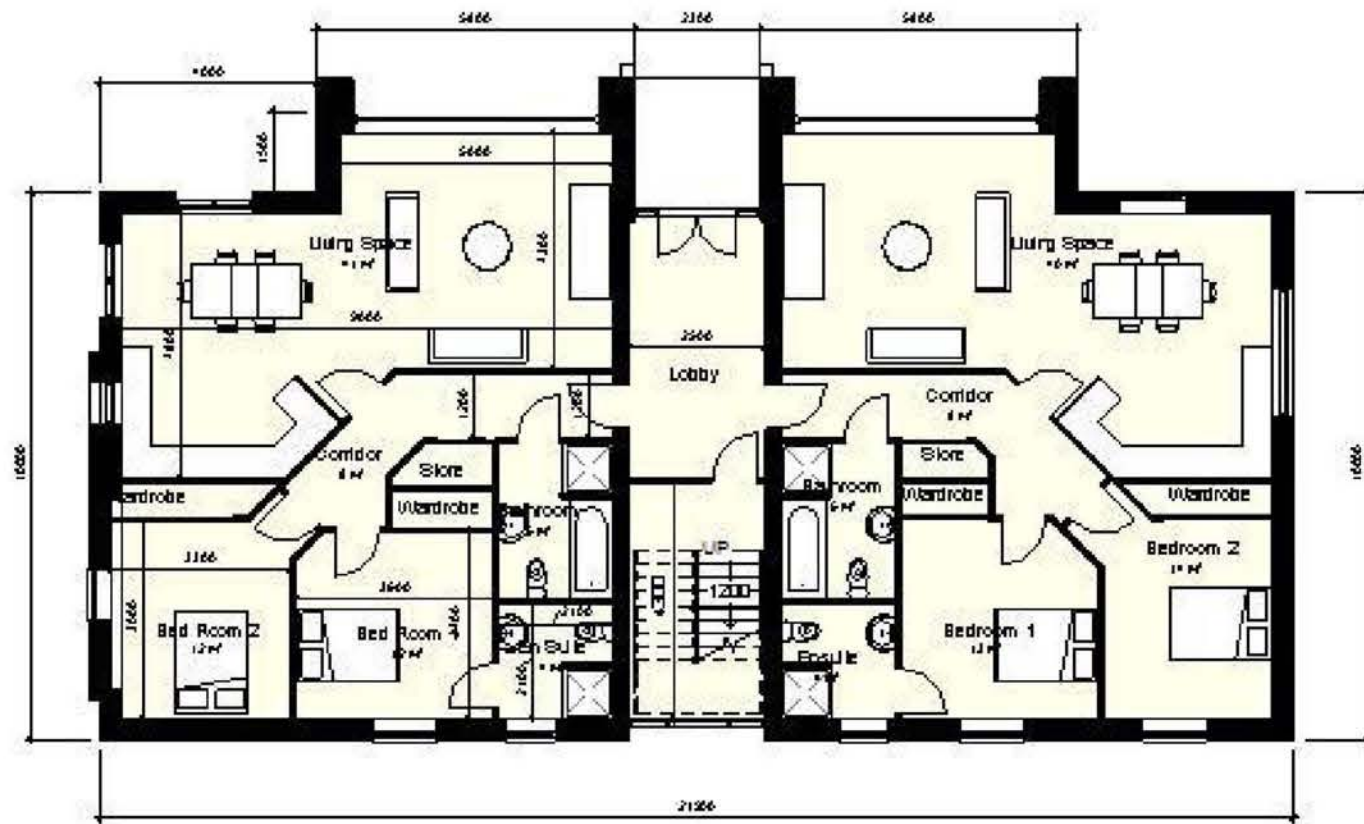
PLOTS 3 & 4 - 3 BED HOUSE

Exploring materials and form



PLOT 5 - Apartments

Exploring materials and form



Establishing 3D Form and Mass



7.0 Proposed Scheme

Masterplan

- 7.1. The design development process has resulted in a proposal for 9 residential units consisting of two 4 bed houses, two 3 bed houses and five 2 bed luxury apartments. The masterplan demonstrates that this is a low density development with units set within spacious plots utilising much of the existing established vegetation.
- 7.2. The scheme has been designed with the retention of the high and moderate quality trees in mind, particularly T75, at the request of the tree and planning officers. It is necessary to fell 18 trees plus two small groups G6 & G8, of which 5 are unsuitable for retention regardless of development with the remainder being of low quality with the exception of 1 moderate quality specimen. Of the 18 trees to be felled, 8 have TPOs attached to them and all 8 have been surveyed as either 'U' unsuitable for retention or 'C' trees of low quality. A substantial and detailed planting scheme is proposed to mitigate for the tree loss. The planting proposals include 15 new trees, 85 linear metres of semi natural hedgerow, a mix of single species ornamental hedges to fronts of plots and pockets of ornamental shrub planting.
- 7.3. The development is accessed via a gated driveway which is intended to be private. The minimum width of the driveway is to be 4.5m. The existing access off Hafod Road is to be widened on the south side to allow a continuous footway into the development up to the apartment block entrance. The width of this footway is 1.5m which is wider than much of the existing footway along the north side of Hafod Road.
- 7.4. Refuse collection is to take place within the site. The gates to the development will be programmed to accommodate this. They are positioned at the top of the slope allowing for a large vehicle, such as a delivery lorry, to wait off the carriageway avoiding any potential obstruction.



Figure 7.1 Site Masterplan

ENVIRONMENTAL SUSTAINABILITY & ENERGY STATEMENT

The applicants are keen to produce buildings that are highly energy efficient and provide a healthy environment for residents. Developments are a multi award winning developer in this arena, and were Worcester Bosch's Housebuilder of the year and 2020 scheme in 2012.

The fundamental principles behind the sustainability & environmental aspects in this project are based on six key points:

1. High levels of insulation
2. Air tight structure
3. Designing out Thermal bridging
4. MVHR (Mechanical Ventilation and Heat Recovery)
5. Triple Glazed fenestration
6. Optimising Solar gain

By designing with the intention of reducing excess energy from the outset, the finished development will have dramatically reduced heat loss through the structure. This makes the home more energy efficient by reducing the amount of energy required in its comfortable environment.

This is known as a 'Fabric First' strategy, designing the fundamental fabric of the building envelope to perform so well that the energy is reduced significantly, a 'passive' approach, which is far more efficient and cost effective than attempting to generate later stage.

Architecture

Form

- 7.5. The desire to create a high end modern residential development that features traditional familiar elements was crucial to the entire design process. The final form draws from the vernacular of the prominent Hafod Road houses and therefore incorporates steep roof pitches and large over hangs. Large glazing with solid brick elements are a familiar feature of the buildings on Hafod Road and this concept has also been integrated within the proposed scheme by way of floor to ceiling windows and strong protruding brick features.
- 7.6. At the heart of the design process was thermal efficiency and therefore the thermal envelope of the units have been designed to produce a simple form which will minimise risk of thermal cold bridging and heat leakages. To minimise solar gain through the large expanses of glazing, triple glazed units will be specified.
- 7.7. The whole development has been designed to form a family of properties, sharing and drawing upon design principles from each other. This allows for the development to convey an individual architectural language in its own right whilst also being sympathetic to the vernacular of Hafod Road

Scale

- 7.8. Through a number of pre app meetings the height and scale of the properties was discussed and considered. The highest ridge from ground level is of the apartment block at +12300mm with the lowest ridge height of the 3 bed units at +9700. These were considered to be in keeping with the surrounding built form.

Materiality

- 7.9. The material pallet has been selected to compliment the surrounding building vernacular as well as to provide the desired luxury, contemporary feel. The final material pallet will all be of an engineered nature producing sharp, sleek and clean edges.
- 7.10. The façade treatment will consist of an engineered red brick contrasting with a light render system and potentially a feature brick system for the protruding elements which will emphasise these unique elements of the plots.

- 7.11. A man made engineered Grey Blue slate effect roof tile will be specified for the roofs of all plots. This material type was selected as it corresponds with the context whilst being sympathetic to the chosen wall cladding materials.
- 7.12. Large glazed frontages were introduced to the building design which provide light rooms and a feeling of space as well as continuing the design language throughout. All windows are triple glazed which increase the thermal efficiency of the dwellings as well as muting any noise from the nearby road.





Elevation A - Front Elevation - North West
1 : 100



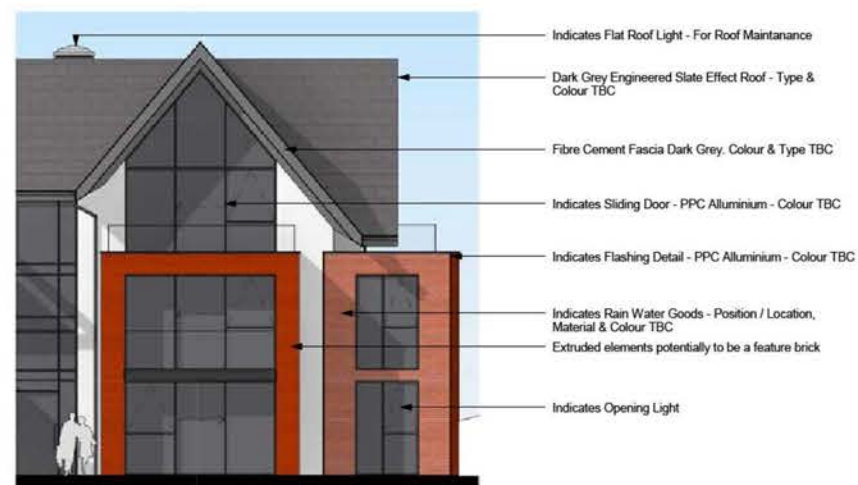
Elevation B - Hafod Road Elevation - South West
1 : 100



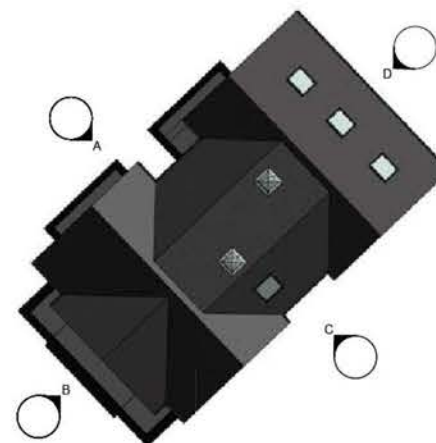
Elevation C - Rear Elevation - South East
1 : 100



Elevation D - Towards Plot 4 Elevation - North East
1 : 100



Excerpt Elevation Key
1 : 100

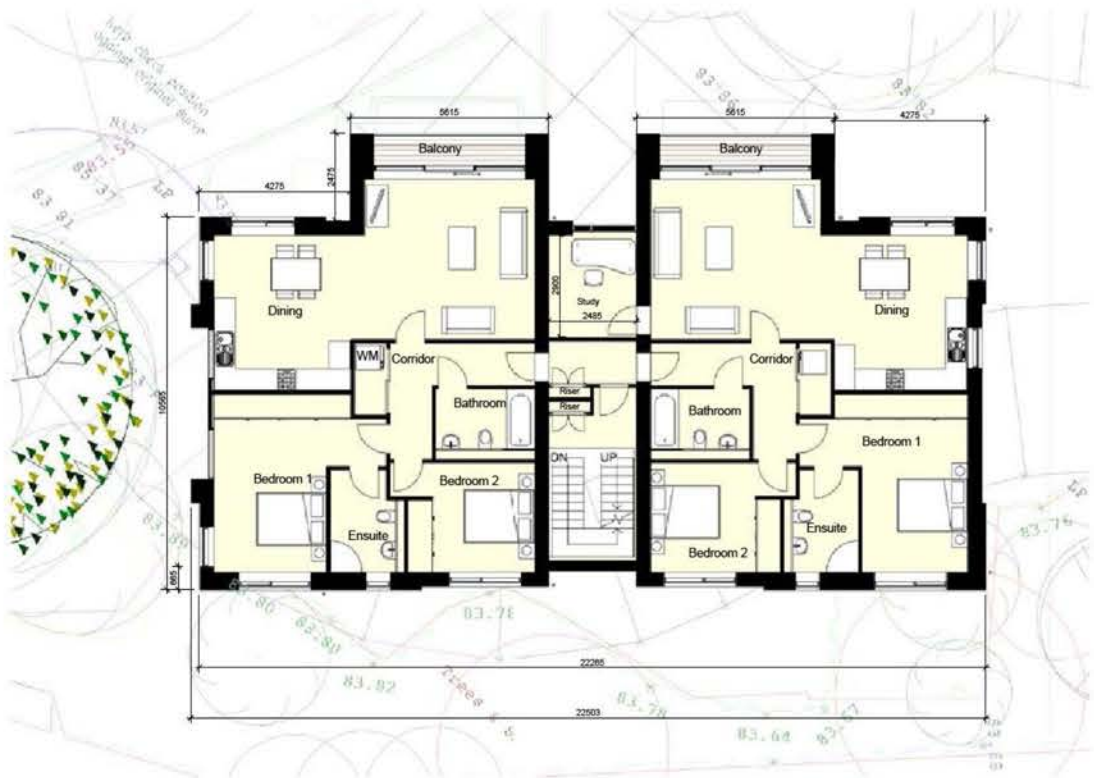


Elevation Key Plan
1 : 200

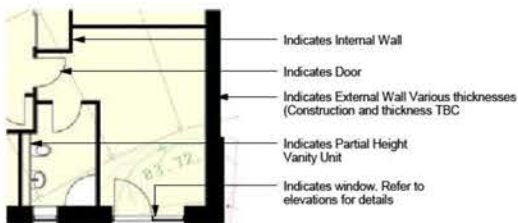
Figure 7.2 Apartment Elevations



Ground Floor Plan
1 : 100



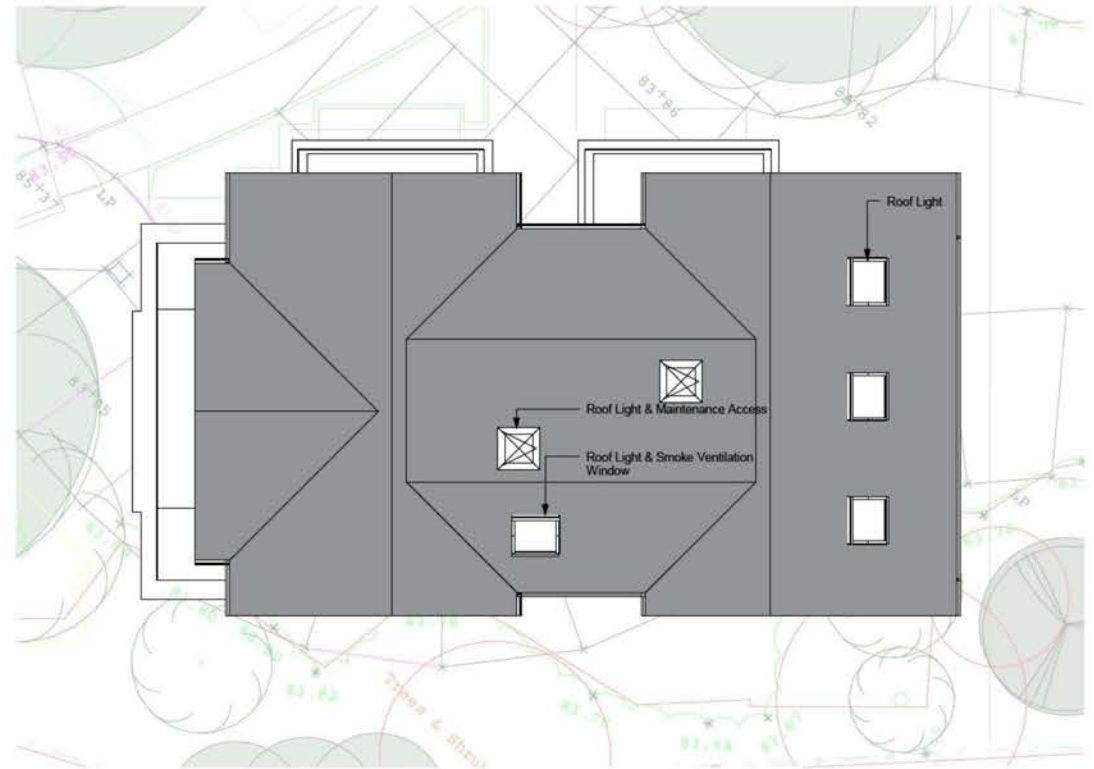
First Floor
1 : 100



Excerpt Key: Plan
1 : 100

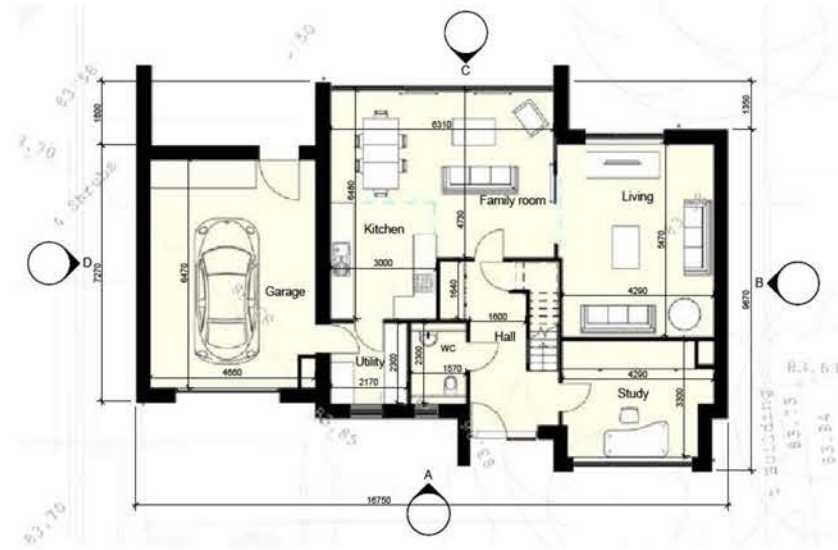


Second Floor (Penthouse) Plan
1 : 100



Roof Plan
1 : 100

Figure 7.3 Plot 5 - Apartment Floor and Roof Plans



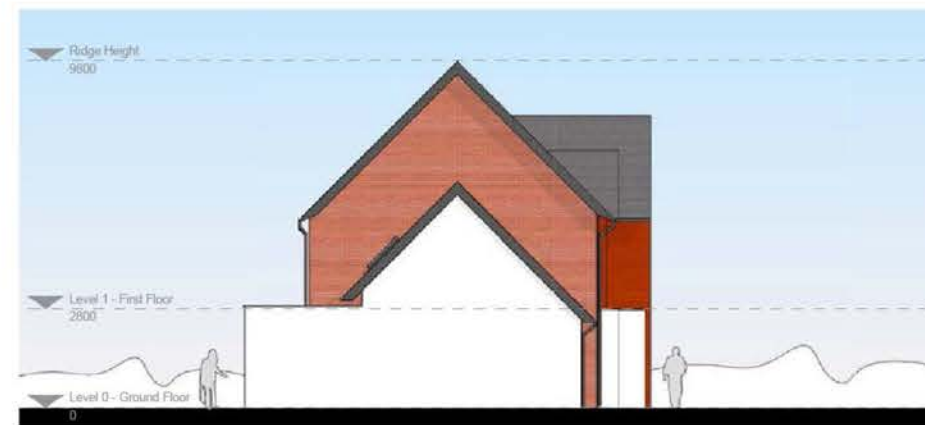
GF Floor Plan
1 : 100



Elevation A - Front Elevation
1 : 100



Elevation C - Rear Elevation
1 : 100



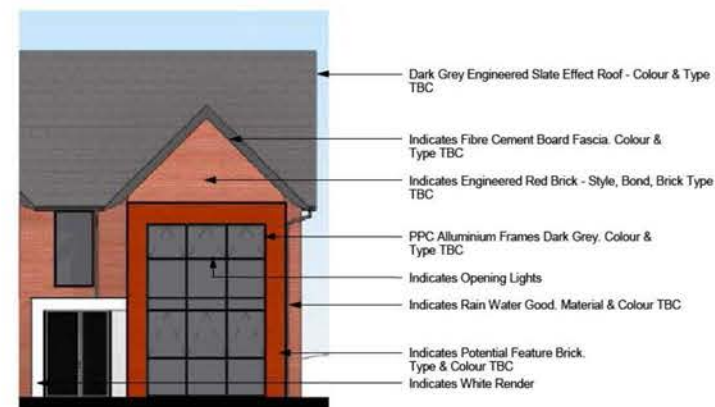
Elevation B - Side Elevation
1 : 100



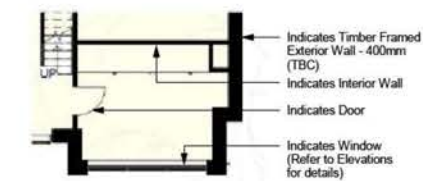
Elevation D - Side Elevation
1 : 100



FF Floor Plan
1 : 100



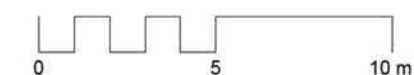
Excerpt Key: Elevation
1 : 100

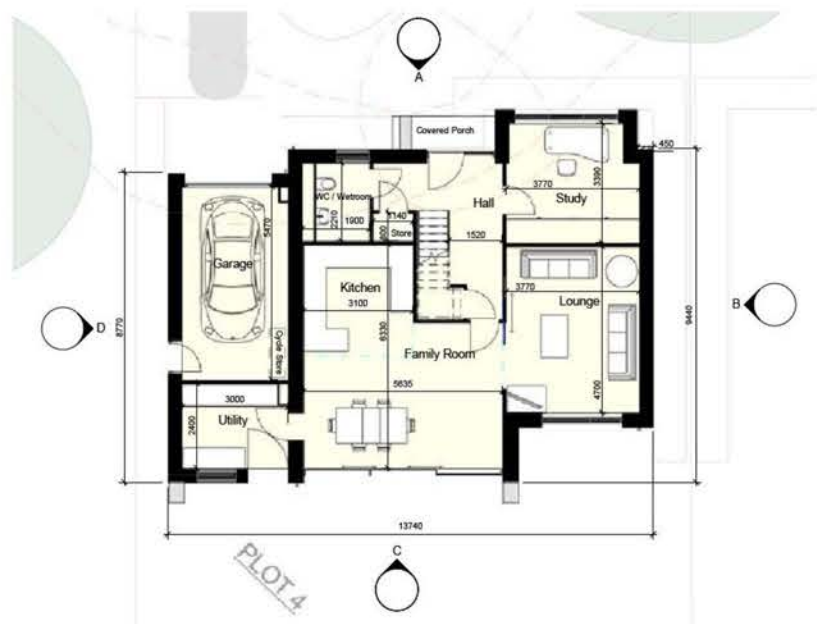


Excerpt Key: Plan
1 : 100

DESIGN NOTE:

Plots One & Two are identical and are situated adjacent to each other. Please refer to Masterplan for location and proximity

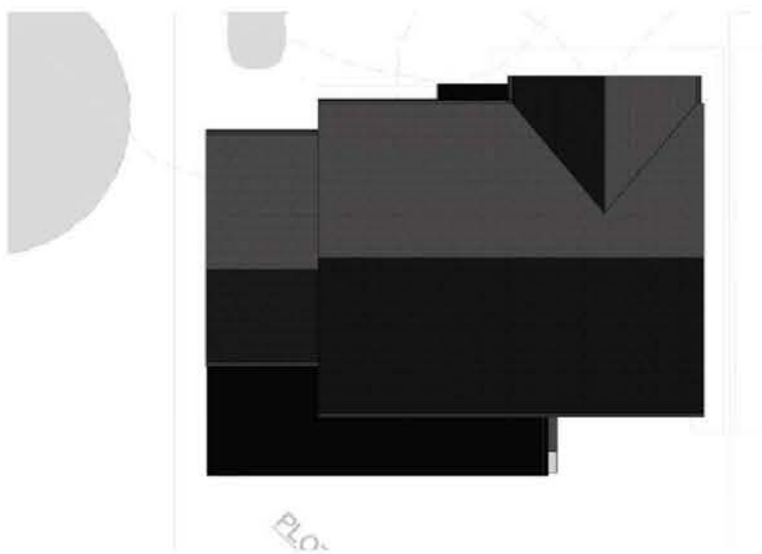




GF Floor Plan
1 : 100



FF - Floor Plan
1 : 100



Roof Plan



Elevation A - Front Elevation
1 : 100



Elevation B - Side Elevation
1 : 100



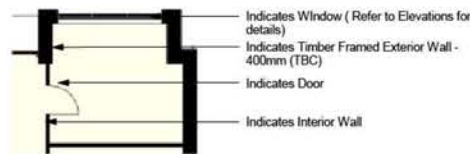
Elevation C - Rear Elevation
1 : 100



Elevation D - Side Elevation
1 : 100



Excerpt Key: Elevation
1 : 100



Excerpt Key: Plan
1 : 100

NOTE:
Plot 3 is a mirror image of Plot 4 and is situated directly adjacent to Plot 4. This drawing refers to both plots however the orientation is based on the layout of Plot 4. Please refer to the Masterplan for details of the adjacency & location of the plots



Figure 7.5 Plot 4 - 3 Bed Elevations



Figure 7.6 3D Visual Render



Figure 7.7 3D Visual Render



Figure 7.8 3D Visual Render

Before and After View from Hafod Road



Figure 7.9 Before - Hafod Road Frontage



Figure 7.10 After - Proposed Elevation from Hafod Road

Site Sections



Section A-A
1:200



Section B-B
1:200



Section C-C
1:200

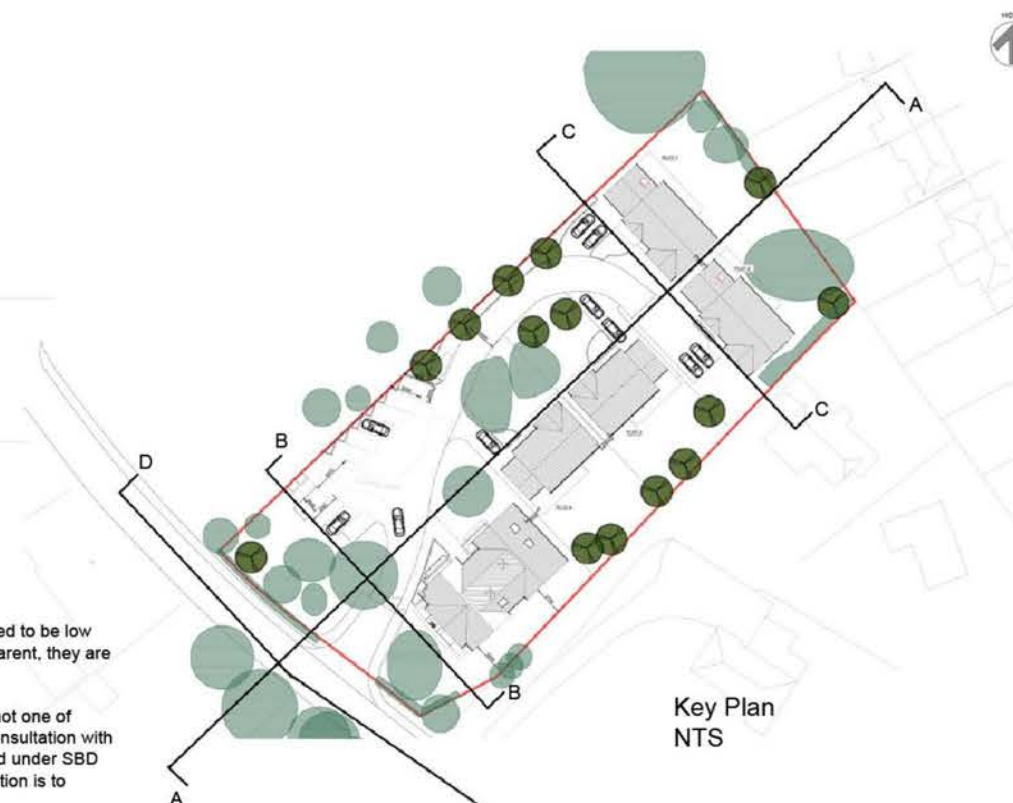


Section D-D
1:200

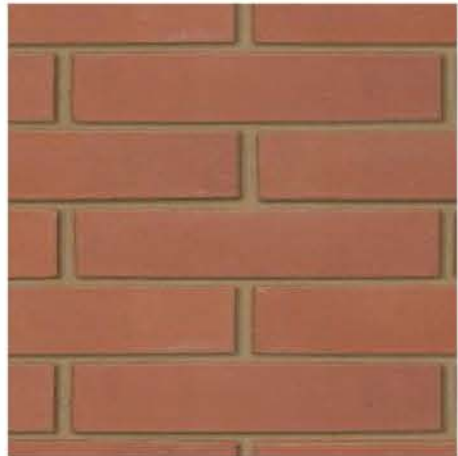


GATES:
The gates have been designed to be low impact and effectively transparent, they are set back 13m from the road.

The purpose of the gates is not one of exclusivity but security. In consultation with the Crime Prevention unit and under SBD guidelines their recommendation is to provide gates.



Materials Palette



Elongated brick in a red to complement the Hafod Road character



Secondary brick with tonal difference to highlight elevational detail



White through colour render



Eternit fibre cement roof slate to all pitched roof areas

7.13. The overall material selection is based on the following key considerations:

- A contemporary, crisp style;
- Appropriate for the Hafod Road Conservation Area setting;
- High quality materials for longevity and functionality and;
- Minimal on-going maintenance for end user.



Polyester powder coated grey, aluminium windows



Contemporary style, oversized front door and side panel



Contemporary style garage door to match front door



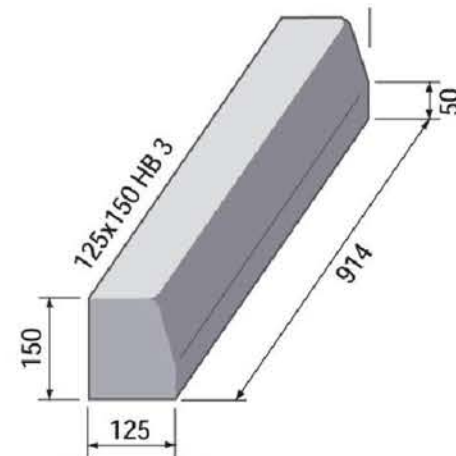
High quality glass balconys to apartment block



Polyester powder coated grey, automated entrance gates. Vertical bar, 1.8m high retaining views into the site.



Silver grey, textured concrete block paving to driveways of houses



BS HB3 concrete kerbs



Permeable cellular grid car parking bays macadam surface to main driveway

Landscape Proposals

Trees						
No.	Key	Species Name	Pot Size	Height	Girth	Specification
2 No.	AG	Ainus glutinosa		400-450cm	14-16cm	Extra Heavy Standard, BR, 1.5m clear stem
2 No.	CBF	Carpinus betulus fastigiata 'Frans Fontaine'		400-450cm	14-16cm	Extra Heavy Standard, BR, 1.5m clear stem
1No.	CJ	Carpinus japonica		250-300cm		3x, RB
1No.	GB	Ginkgo biloba		300-350cm	12-14cm	Heavy Standard, 3x, RB
1No.	JA	Ilex aquifolium	20L	150-175cm		
1No.	MHS	Magnolia Heaven Scent		300-400cm	12-14cm	Heavy Standard, RB, 5 brks: 3x
2No.	MK	Magnolia Kobus		180-240cm	8-10cm	Container
2No.	MS	Malus sylvestris		300-350cm	12-14cm	Heavy Standard, 4x, RB
2No.	MT	Malus triflobata		300-350cm	12-14cm	Heavy Standard, 4x, RB
1No.	PS	Pinus sylvestris	50L	125-150cm		Feathered, Container

Hedges						
No.	Key	Species Name	Pot	Specification	Height	Density
30No.	Bx	Buxus sempervirens	2L	Bushy: 3/5 brks	20-30cm	4 / lin m
66No.	Eab	Escalonia 'Apple Blossom'	3L	Bushy: 3/5 brks	30-50cm	4 / lin m
114No.	laf	Ilex aquifolium 'Ferox Argentea'	3L	Bushy: 3/5 brks	40-60cm	4 / lin m
48No.	Ob	Osmanthus x burkwoodii	3L	Bushy: 3/5 brks	40-60cm	4 / lin m

Shrubs						
No.	Key	Species Name	Pot	Specification	Height	Density
34No.	Cbm	Ceanothus 'Blue Mound'	3L	Bushy: 3/5 brks	40-60cm	3/m²
52No.	Cap	Choisya 'Aztec Pearl'	3L	Bushy: 3/5 brks	40-60cm	3/m²
48No.	Ch	Cistus x hybrid	3L	Bushy: 3/5 brks	40-60cm	3/m²
64No.	Lah	Lavendula angustifolia 'Hidcote'	3L	C	30-40cm	4/m²
54No.	Lam	Lavendula angustifolia 'Munstead'	3L	C	20-30cm	5/m²
75No.	Ptgc	Pachysandra terminalis 'Green Carpet'	2L	Full Pot, Bushy	20-30cm	11/m²
43No.	Sni	Salvia nemorosa 'Lubecca'	2L	C		6/m²
32No.	Snr	Salvia nemorosa 'Rosenwein'	2L	C		5/m²
83No.	Sbsc	Stachys byzantina 'Silver Carpet'	3L	C		4/m²

Climbers						
No.	Key	Species Name	Pot	Specification	Height	Density
13No.	Cia	Clematis armandii	2L	2 brks: Caned	60-80cm	Counted
5No.	Hh	Hedera helix	2L	2 brks: Caned	60-80cm	Counted

Grasses						
No.	Key	Species Name	Pot	Specification	Height	Density
84No.	Dc	Deschampsia cespitosa	2L	Full Pot		5/m²
34No.	Sa	Stipa arundinacea	3L	Full Pot		5/m²

Hedge Mix 1 - 85m lin m						
No.	%	Species Name	Specification	Height	Density	
212No.	50	Crataegus monogyna	1+2, 60-80cm, BR			
66No.	20	Corylus avellana	1+2, 60-80cm, BR			
22No.	5	Ilex aquifolium	3L, 40-60cm, C			
65No.	15	Ligustrum vulgare	1+2, 60-80cm, BR			
43No.	10	Prunus padus	1+2, 60-80cm, BR			

Quantity of Hedge Mix 1 plants to be reviewed following tree removal works prior to planting operations. Existing shrubs along boundary to be retained where possible. Transplants to be planted (November to March) in clean ground in a double staggered row. Rows shall be 400mm apart and planted at 400mm centres ensuring 5 no plants per linear metre.

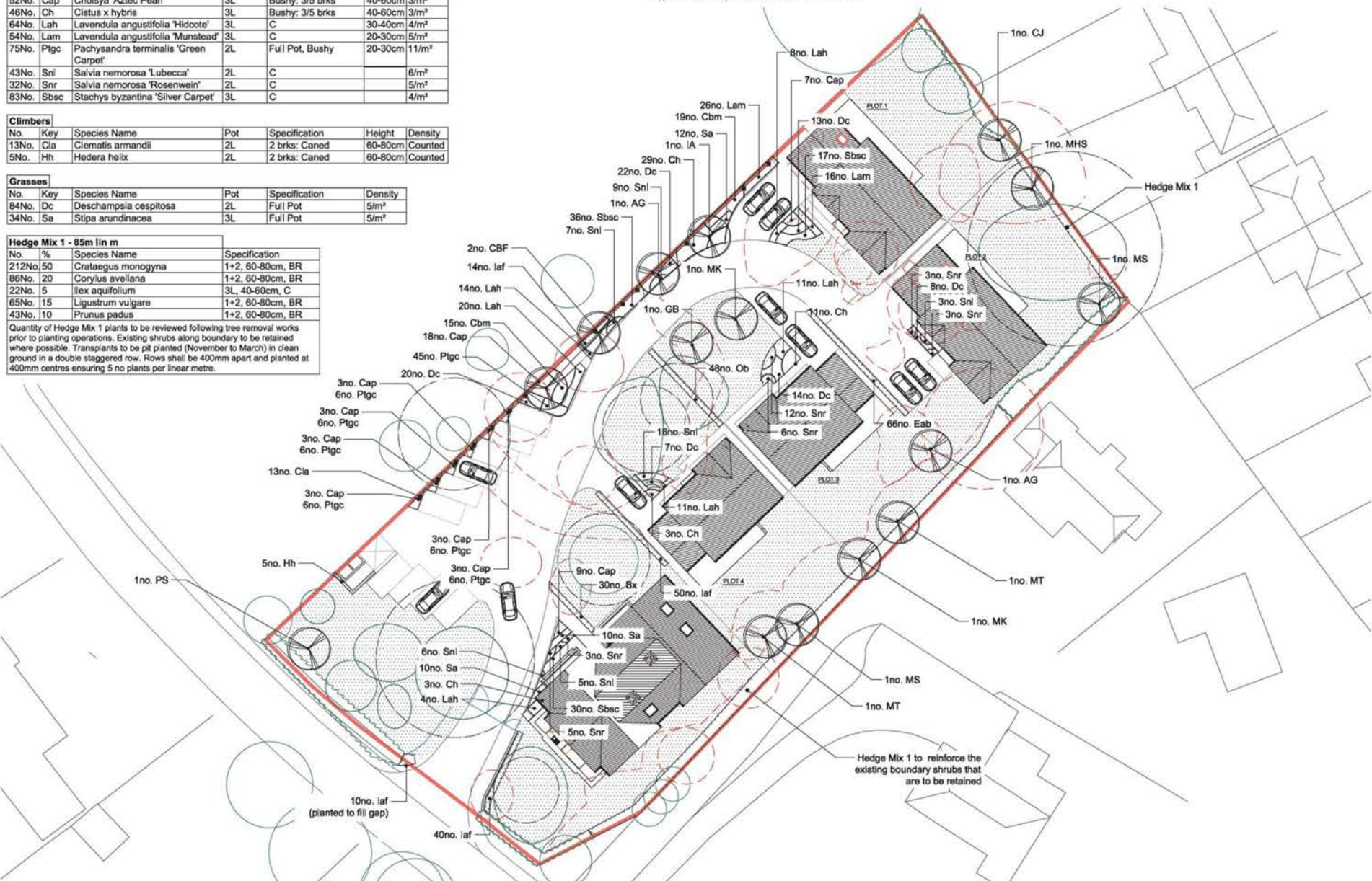


Figure 7.12 Planting Proposals

Landscape Strategy

Overarching Strategy

- Conserve and protect the site's high quality trees;
- Provide new trees to partially mitigate for tree losses whilst ensuring the existing stock has sufficient space to thrive;
- To respect the Hafod Road Conservation Area in which the site sits;
- To select appropriate species taking account of how the wider Brockington House Estate was originally conceived.

Consultation

- 7.14. Herefordshire Council planners and their consultant arboriculturalist were consulted as part of the design process. As well as discussion as part of the pre application meetings, a site walkover took place to discuss the merits of the existing trees within the application boundary.
- 7.15. The Council's arboriculturalist made the following comments based on our early site layout plans:
- T75 – (Holm Oak) – this tree was considered to have very good overall form, although slightly suppressed by adjacent false acacia tree to the south. The proposals would result in this tree being removed. Whilst on site, it was considered that this tree was a real focal point for people entering the site and it is considered that it should be incorporated within an open space area as a focal point specimen tree. The adjacent False acacia's (T73/T74) could be removed to allow the Oak to re-gain its true form.
 - There may be an option to re-locate via the use of a tree shade – Nature first use a 38 tonne machine to move a tree of this size – not sure how viable this will be within the site??
 - T30 and T38 (Red Oaks) were noted to be outside the developable area, these trees were identified to have wood decay fungal brackets at the base. Both trees are TPO'ed. It was agreed that a more detailed inspection would have to be undertaken to establish their overall structural condition before any management decisions are made.
 - T47 (Beech) – this tree was noted to have a large graft union at approximately 1m – this was showing signs of fluxing (wet residue to stem from union). Although the tree is reasonably small

in size which reduces the potential hazard, it is considered that the longevity of this tree has been compromised. I considered that a detailed inspection would only confirm what is suspected. Therefore, I would not be resistant to the removal of this tree.

- G6 (coniferous trees) – this group is located on the eastern boundary of the site. Although these trees offer good screening to the neighbouring dwellings to the east, it is my option that these trees have a limited useful life expectancy and probably be inappropriate to be retained or retained/reduced in the proximity of dwellings. I consider that these could be selectively removed (leaving smaller trees/groups) and replaced with hedgerow and heavy standard trees -the screen would then be retained.
 - T49 (Spruce) – located close to the existing smaller access towards the eastern boundary of the site. It was discussed that this tree be removed to allow the access to be widened to allow a footpath to be constructed. I consider that the removal of this tree will have an impact on the street scene but will also allow other adjacent trees to thrive, therefore I consider this trees loss can be mitigated. A discussion was had to replace with a Cedar tree in approximately same location once the infrastructure works were complete. It is my opinion that space is limited in this location and it may be more appropriate to re-plant elsewhere on site.
 - T43-T46 – group located close to the eastern boundary. All trees were suppressed or in declining health which could impact their overall longevity. I consider that their removal is reasonable and could be mitigated by additional heavy standard planting.
 - T82/T83 – Norway Maples – On site there was a discussion regarding the removal of one tree and retaining the other. My option was that as the trees have grown up together they are a cohesive 'group' and should be retained as one and incorporated into the design.
- 7.16. Following receipt of these comments the initial layout plans were revised to take on board the points raised. The main concern was the retention of the Holm Oak (T75). It is considered that it should be retained and allowed to become a real focal point for the site.
- 7.17. The mature holly hedge along Hafod Road frontage is also seen as an important landscape element of the existing site which the case officer expressed a preference for retention.

Layout

- 7.18. The proposed site layout retains as many high quality and healthy trees as possible whilst allowing the low density residential development to be realised.
- 7.19. The plots are open in character to compliment the existing character of the wider site which currently houses Brockington House. It also reflects the character of the residential plots to the south and east of the site which have large open plots with particularly spacious gardens.

Tree Removal

- 7.20. It is necessary to fell 18 trees plus two small groups G6 & G8, of which 5 are unsuitable for retention regardless of development with the remainder being of low quality with the exception of 1 moderate quality specimen. Of the 18 trees to be felled, 8 have TPOs attached to them and all 8 have been surveyed as either 'U' unsuitable for retention or 'C' trees of low quality.

Hedges

- 7.21. The proposals indicate thinning the eastern boundary by removing the inappropriately planted Cypress, Leylandii and Thuja plicata (G8) located within the application boundary. It should be noted that at least four other trees alongside the neighbouring driveway will remain as mature trees along this boundary. To bolster the eastern boundary there will be a 69m length of semi natural hedgerow running between the existing hedges to the north east and south east. This species mix includes 50% Crataegus monogyna, 20% Corylus avellana, 5% Ilex aquifolium, 15% Ligustrum vulgare and 10% Prunus padus. This will provide a strong boundary once established and ensure screening to the adjacent residential properties.
- 7.22. Single species ornamental hedges form the front garden boundaries which help to soften the approach into the site. These are all of different hedge species to create plant diversity and interest to the development. Osmanthus x burkwoodii, Escallonia 'Apple Blossom', Ilex Angustifolium 'Ferox Argentea' and Buxus sempervirens are provided for the front garden boundaries.

Trees

- 7.23. The trees which are to be retained on site are mature and provide an established structure in which the development will sit. The existing trees will be protected during the construction works.
- 7.24. New tree planting consists predominantly of native species with some smaller ornamental trees within gardens. Proposed species such as Ilex, Pinus and Ginkgo are present within the wider site and reflect some of the original species selection when the site was first planted.
- 7.25. The long western boundary is reinforced with four medium sized native trees to offer some screening from the neighbouring development plot containing Brockington House. Ornamental shrub planting and climbers will soften the view towards the fence line at the lower level.
- 7.26. Further specimen trees are proposed along the eastern boundary to mitigate for the removal of the outgrown leylandii specimens inappropriately located on the boundary.
- 7.27. At the access to the site off Hafod Road loss of T49 is essential to allow widening of the existing entrance and a footpath to continue from the road, round and into the site. T48, an Acer platanoides will benefit from this removal allowing it to better develop a stronger form.
- 7.28. Plot 4 benefits from having a large front garden with two mature trees retained within. Plot 3 will be similar albeit the two trees are newly planted into the gaps in views looking north west from Plots 3 and 4.
- 7.29. Plot 2 encroaches into the RPA of T39 and has been measured at approximately 7% of the RPA. The position of this house like this allows for cars to make a safe manoeuvre in front of the property. On all other sides of this tree the root protection area is within soft landscaped areas.

External Lighting

- 7.30. Within the application site the intention is to provide low level lighting only. This will be directional LED lighting via bollards, used sparingly and positioned to identify the main driveway and pedestrian entrance to the apartment block.

Planting Pallet

Trees



Alnus glutinosa



Carpinus betulus festigiata
'Frans Fontaines'



Carpinus japonica



Ginkgo biloba



Ilex aquifolium



Magnolia 'Heaven Scent'



Magnolia 'Kobus'



Malus sylvestris



Malus trilobata



Pinus sylvestris

Climbers



Clematis armandii

Ornamental shrubs



Ceanothus 'Blue Mound'



Choisya 'Aztec Pearl'



Cistus x hybridus



Lavendula angustifolia 'Hidcote'



Lavendula angustifolia 'Munstead'



Pachysandra terminalis 'Green Carpet'



Salvia nemorosa 'Lubecca'



Salvia nemorosa 'Rosenwein'



Stachys byzantina 'Silver Carpet'

Grasses



Dechampsia cespitosa



Stipa arundinacea

Hedging



Buxus sempervirens



Escallonia 'Apple Blossom'



Ilex aquifolium 'Ferox Agentea'



Osmanthus x burkwoodii

Hedge mix



Crataegus monogyna



Corylus avellana



Ligustrum vulgare



Prunus padus



Ilex aquifolium

Outline Drainage Strategy

Foul Sewage & Surface Water

- 7.31. The existing site has 1458m² of impermeable surface. The proposed development will have 1717m² of impermeable surface (road, drives and roofs).
- 7.32. The ground condition survey concluded that the general cohesive soils at the depths found on the site are not suitable for soakaways. Infiltration tests undertaken failed to infiltrate over a 24hr period.
- 7.33. Rainwater harvesting is proposed to each of the four houses. Rainwater storage tanks are proposed underneath the driveway of each house.
- 7.34. Soakaways are not feasible so rain water is to be collected and drained to an attenuation tank to control the outfall from the site to the combined public sewer in Hafod Road.



Figure 7.13 Outline Drainage Strategy

Highways



Photo 7.1 Visibility looking right from the site

Proposed Site Access

- 7.35. Hafod Road provides highway access to the site from the existing simple priority junction, and is a two-way street following a north-south alignment from the junction with Old Eign Hill to the south connecting to the roundabout junction with the A438 in the north. Carriageway width along Hafod Road is approximately 6.0m along the entirety of the road, and the road is subject to a speed limit of 30mph.
- 7.36. Footway widths on Hafod Road range from approximately 1m to approximately 2.0m along various stretches and are therefore considered to be appropriate to accommodate pedestrians walking to the proposed development without amendment.
- 7.37. Visibility splays looking left from the site access onto Hafod Road (towards north-westbound traffic) are unobstructed as the road bends away from the site. Visibility splays looking right from the site access onto Hafod Road (towards south-eastbound traffic) are less than 20m.
- 7.38. When the wider site operated as Council offices it accommodated up to 110 members of staff and attracted many visitors. Within the extents of the application site there are 58no. parking spaces. Comparing the likely high number of vehicle movements previously made by staff and visitors to the site, with the number of likely vehicle movements for 9 residential units, we can assume the figure to be significantly less.

- 7.39. During pre application discussions, the amenity value of the existing holly hedge running along the front of the development site was highlighted as being important to retain. As such, improvements to the junction consist of widening the existing junction mouth to the south, provide a footway connection into the site and retain the hedge alignment as it is.
- 7.40. The proposal is that the main drive off Hafod Road becomes private and is controlled via an automated vehicle gate and separate pedestrian leaf. The gates are to be positioned approximately 13m into the site allowing sufficient space for vehicles to wait safely off the highway whilst the gates open inwards.
- 7.41. The gates have been designed to be low impact and effectively transparent, they are set back 13m from the road. The purpose of the gates is not one of exclusivity but security. In consultation with the Crime Prevention unit and under SBD guidelines their recommendation is to provide gates. To ensure that an inclusive design is achieved, the gates will be programmed to remain open during day light hours allowing full permeability.
- 7.42. The width of the main drive is to be no less than 4.5m. The arrangement of the parking bays associated with the apartment block allows a 17.5m long turning head for large vehicles to make a safe manoeuvre.
- 7.43. Refuse collection is intended to take place off the highway from within the site. The apartment block will have a communal bin store towards the front of the site next to the turning head. Houses will have their own wheelie bins and a centralised collection point close to the turning head ensuring that collection from can be achieved quickly and safely.

Existing holly hedge to be retained due to high amenity value in relation to the Hafod Road Conservation Area and the setting of the undesignated heritage asset of Brockington House



Figure 7.14 Access to Site

Sustainability Statement

7.44. As with many of the residential projects delivered by I.E. Developments, their buildings are designed to be low energy buildings. This section discusses the various philosophies that could be adopted for the proposed buildings. These options will be detailed out as the building design progresses to select the most applicable method of servicing the buildings. At present the design strategy is based upon utilising passive measures to maintain the environmental conditions.

Fabric First

7.45. The detailed design of the buildings to which this application applies will seek to incorporate the principles of 'Fabric First' to reduce the energy demand for space heating and cooling. This will include:

- Achieving low elemental U-values by optimising the insulation used
- Assessing the effects of thermal bridging.
- Improving airtightness to reduce heat losses.
- Building orientation to maximise the effect of solar gain and large window openings to benefit from natural light and to ensure natural ventilation is available in the occupied spaces.

Timber Frame Construction

7.46. The development will utilise timber frame construction where possible. The environmental benefits to using timber frame over more traditional methods of construction are:

- Timber from FSC-certified sources is a carbon neutral sustainable resource.
- Timber is a non-toxic, organic and naturally renewable building material.
- Timber frame is thermally efficient gaining high 'U' values.
- Energy costs are reduced due to the effectiveness of the insulation.
- Improved acoustic insulation.
- Timber frame is light and easy to transport.
- It complies with the Code for Sustainable Homes, achieving and

exceeding the required standards easily.

- It offers a lighter form of construction which can be of benefit to foundations especially where the ground conditions are poor.

Mechanical Ventilation with Heat Recovery



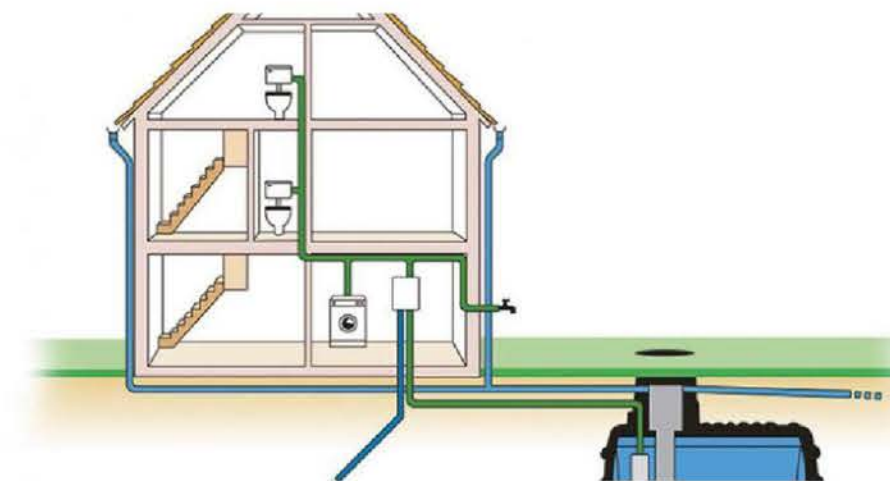
7.47. The development will include the installation of MVHR (Mechanical Ventilation with Heat Recovery) a system designed to provide controlled ventilation with slow but constant air movement ultimately improving occupant comfort levels.

7.48. The MVHR system is an essential part of a low energy home to provide sufficient ventilation without the heat losses that are associated with other forms of ventilation. The process of recovering heat from stale, used air and transferring it to the fresh incoming air has a major influence on energy and emission savings.

Triple Glazed Windows

7.49. The development will include the installation of triple glazed windows throughout to ensure a good thermal performance to each accommodation unit. Along with a well-insulated frame this will make a big contribution to very well-insulated buildings with more efficient heating bills.

7.50. Another major benefit is that triple glazing will make the homes feel more comfortable to live in. Research by the Passivhaus Institute has shown that, when external temperatures drop, the inside pane of a triple glazed window will be much warmer than an equivalent double or single glazed version.



Rainwater Harvesting

7.51. Each house is to have a direct rain water harvesting system installed. The systems includes a pre-tank filter, electric pump, management system and a storage tank buried under the driveway. The tank is connected to downpipes for supply and to the drains so that any overflow goes into the sites surface water setup. The direct system pumps filtered rainwater straight to appliances. This has the advantage that the rainwater is delivered at mains pressure.

7.52. The management system will check on the supply levels in the tank, topping it up with mains water if needed, and also sends water to the appliances as required.

7.53. If it rains persistently, any overflow will go into the sites attenuation tank. Once the arrangement is up and running, minimal maintenance is needed.

Energy Performance Certificate

7.54. Energy Performance Certificates give the homeowners an indication of how costly it will be to heat and light, and what its carbon dioxide emissions are likely to be.

7.55. With a low energy passive design philosophy and highly efficient building services systems design we would anticipate that the dynamic thermal modelling would yield a high performance EPC and so reduce or eliminate the need for additional capital investment in low and zero carbon technologies to achieve statutory compliance.

Impact on Conservation Area and Undesignated Heritage Assets



Photo 7.2 Brockington House

- 7.56. The original Brockington House building was built in 1909 and has been extended in 1979 and 1990. Although the original building is not listed the Council's Conservation Officer believes that it is of local importance due to its local architecture and historic interest.
- 7.57. The development brief provided by the Council outlined that any development proposals should look to retain and re-use the original building. The modern extensions are not considered to be of interest and can be removed. The development associated with this planning application does not affect the original building or the later extensions.
- 7.58. The adjoining and adjacent land uses are residential so the principle of residential re-use of the existing building(s) and new residential development (Use Class C3) has already been established as being appropriate for the wider site.
- 7.59. The design brief for the overall site established areas appropriate for development and is shown on Figure 7.15. It was accepted that this would have some impact on some of the trees on the site. However, it was also considered that the layout would not have a detrimental impact on the character of the Conservation Area, the non-designated heritage asset or on the ecological value of the site.

- 7.60. The residential scheme described in this document almost entirely accords with the previously identified Development Zone. The closest proposed structure to the original part of Brockington House is some 58m to the south east.
- 7.61. It is considered that the proposed scheme to which this planning application refers, strikes an appropriate balance between the desire to deliver housing growth and promote sustainable development of the site whilst retaining those trees that are considered to contribute most positively to the character of the area and the setting of Brockington House.
- 7.62. The proposed layout responds positively to the identified constraints. In particular, the positioning of the main drive serving the 5 plots secures the retention of the green landscape fronting the site, the central green area fronting plots 3 and 4 and facilitates the provision of additional planting within the site. It is considered that this reinforces the landscape quality of the site with new development being more secluded and only glimpsed through established and reinforced planting. This approach helps to preserve the conservation area whilst enabling development.

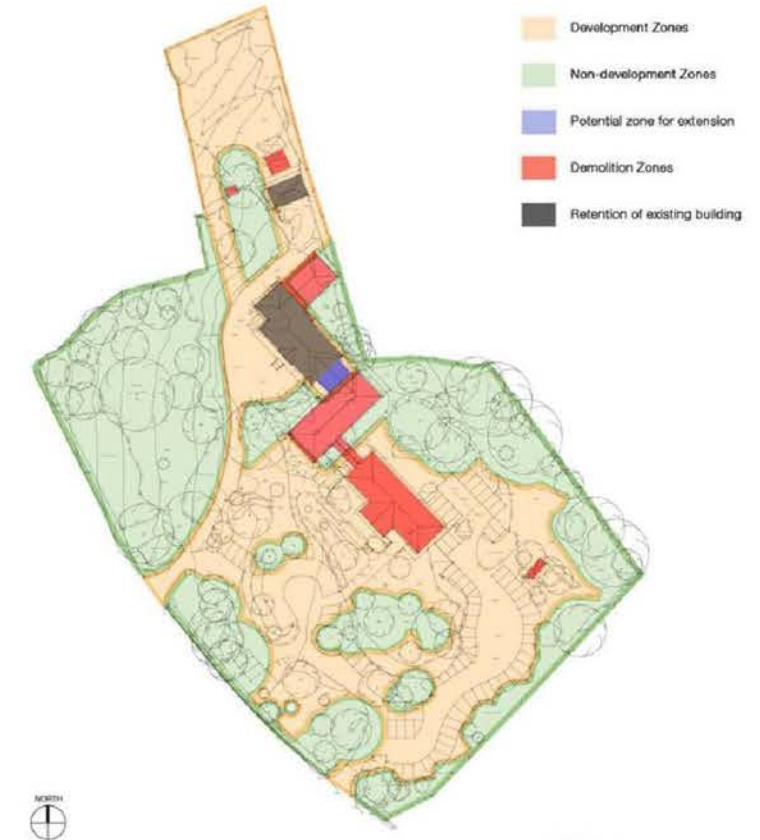


Figure 7.15 Cass Associates - Development and Non-Development Zones



Photo 7.3 Modern extension to Brockington House and its grounds

8.0 Access Statement

Access Statement

Site Access

- 8.1. The application site is situated off the Hafod Road to the eastern side of Hereford, approximately 2km from the city centre.
- 8.2. Hafod Road a two way street, provides highway access to the site. The existing site entrance is to be widened to make it easier for two vehicle to pass one another moving in and out of the site.

Walking

- 8.3. The Institution of Highways and Transportation publication [2000] 'Guidelines for Providing for Journeys on Foot' notes that walking accounts for over a quarter of all journeys and four-fifths of journeys less than one mile (1.6 kilometres). Walking is also an essential part of public transport travel, as bus stops are usually accessed on foot.
- 8.4. The IHT Guidelines also describe 'acceptable' walking distances for pedestrians without mobility impairment. They suggest that for work trips, up to 500 metres is the desirable distance, up to 1000 metres is an acceptable distance and 2000 metres is the preferred maximum.
- 8.5. Footway widths on Hafod Road range from approximately 1m to approximately 2.0m along various stretches and are therefore considered to be appropriate to accommodate pedestrians walking to the proposed development without amendment.
- 8.6. A new footway is proposed to the southern side of the site entrance and will continue into the site up to the apartment block. From here the main driveway will become a shared surface. The development is intended to be private with access controlled by an automated gate.
- 8.7. There are no other points of entrance to the site

Local Services and Amenities

- 8.8. There are a number of key amenities and facilities within close proximity of the site:

- Hampton Dene Primary School
- St Paul's C of E Primary School

- The Bishop of Hereford Bluecoat School
- The Quarry Recreation Ground and Play Area
- Tupsley Scout and Guide HQ
- Parade of shops on Quarry Road includes McColls convenience store, fish and chip shop and Cascade hair and beauty

- Rose & Crown pub, Ledbury Road
- Texaco petrol filling station and Spar, Ledbury Road
- Parade of shops on Old Eign Hill includes Post Office, Premier convenience store and a salon

- 8.9. The location of these amenities and facilities is shown on Figure 8.1.

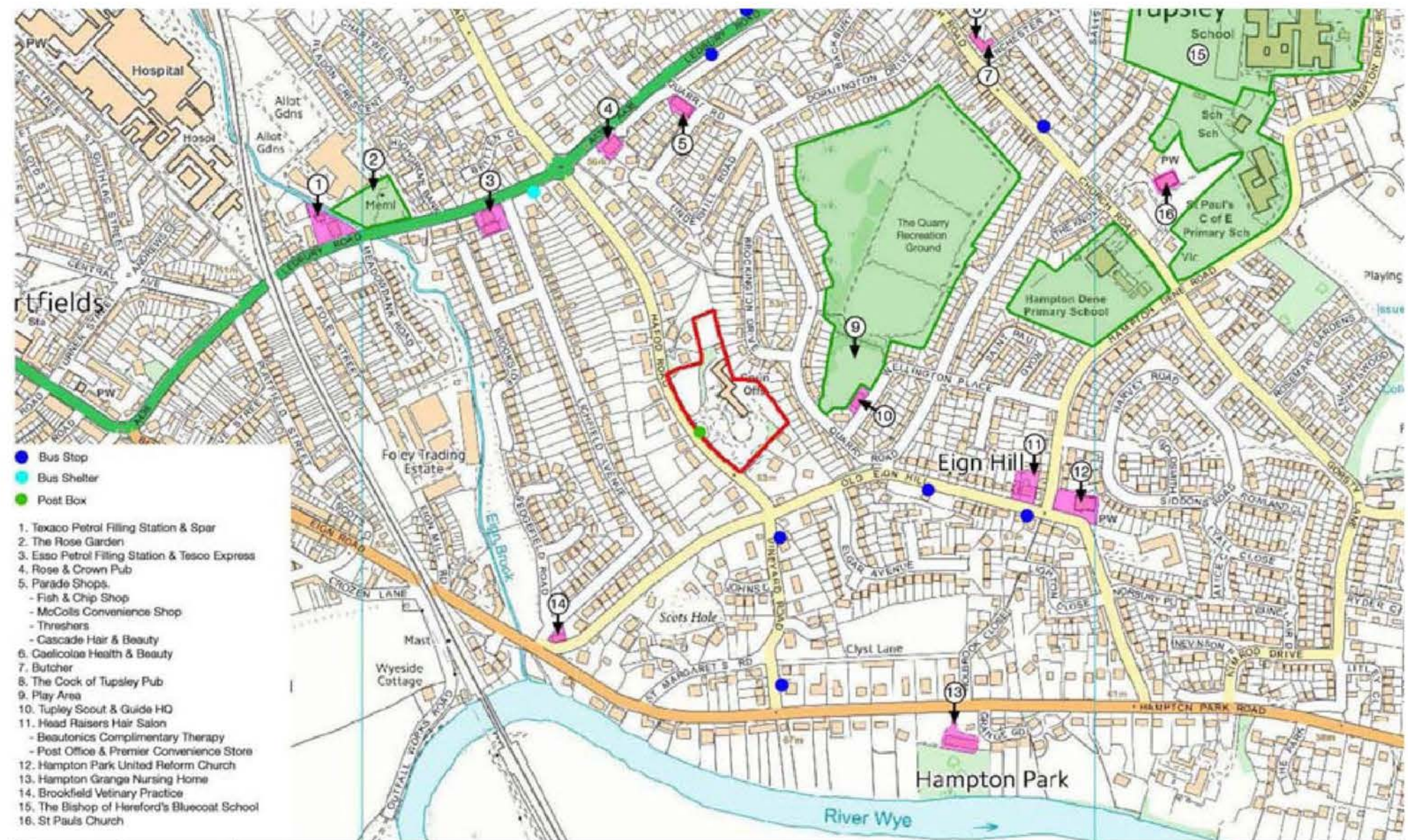


Figure 8.1 Local Services and Amenities



Public Transport

- 8.10. The site lies approximately 1.4km south east of Hereford train station. Managed by Arriva Trains Wales, the train station lies on the Welsh Marches Line between Leominster and Abergavenny, is the western terminus of the Cotswold Line and also has an hourly London Midland service from Birmingham. The station has four platforms for passenger trains, and two additional relief lines for goods services.
- 8.11. There are a number of bus stops within walking distance of the site - on Old Eign Hill, Lichfield Avenue, Ledbury Road and Bodenham Road. A number of bus routes operate in the area, namely; 75, 75B, 76/76A, 476, 469, 388.

Cycling

- 8.12. To encourage sustainable transport methods and a healthy life style, cycle storage provisions have been introduced into the scheme:
- The apartments each have their own dedicated cycling storage area.
 - Plots 3 & 4 have dedicated side entrances into the garage allowing residents to easily access and store their bicycles without the need of opening the garage doors.



Parking and Deliveries

- 8.13. All four houses will have a garage that can accommodate one car with a driveway in front large enough for two further cars. Each of the 5 apartments have been designated with 2 parking bays.
- 8.14. Sufficient space in front of the apartment block is provided to allow a turning manoeuvre for a large vehicle. The council's highways guidance of a 14.5m long turning head has been used to inform the space requirements for this.

Refuse collection

- 8.15. The apartment block will use a set of communal bins which will be housed within the development at the far side of the parking bays from the apartment block. Each of the 4 houses will have their own set of wheelie bins with a centralised collection point opposite plot 4. Consultation with the council department dealing refuse collection has been held with regard to this collection strategy. A 17.5m long turning head facility has been included in front of the apartment block.

Apartment Block

- 8.16. The apartment block is a 3 storey building with communal access via a central stairwell. Thresholds to the building are to be flush in line with building regulations. No lifts are proposed.

Houses

- 8.17. Thresholds will be flush whilst ensuring they do not compromise good building practice in terms of the height of the dpc above ground level and ventilation to sub floors.
- 8.18. Front doors are to be sized larger than standard and the ground floor layout has been carefully considered so it can easily be adapted for 'design for life' principles. The study is of a sufficient size to become a ground floor bedroom with a double bed and the downstairs WC can easily be converted into a walk in shower.





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