bpm
Architectural Services Limited

33 Stoneleigh Avenue
Brighton BN1 8NP
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Planning Statement

Formation of 1no. detached house fronting Victoria Road and 1no. detached house to rear 55 Victoria Road, Southwick, West Sussex, BN42 4DJ

Following the withdrawal of the previous application for this site the applicants have consulted further with the residents at no. 53 Victoria Road. Significant changes to the scheme include the omission of the pair of semi-detached houses, replaced with 1no. detached house.

With the reduction in proposed dwellings to the front it has been possible to widen the access drive to the rear dwelling. With this in mind the development is now over 5.5 metres from no.53 Victoria Road. The residents have liaised with their neighbours at no.53 who have expressed their satisfaction in the proposed changes.

As within the original application it should be noted that the development will pose a more presentable frontage to this section of Victoria Road.

C Darby
05.02.2016

Planning Services, Adur & Worthing Councils

Portland House,
44 Richmond Road,
Worthing,
West Sussex,
BN11 1HS

Tel : 01903 221065
websites : www.adur.gov.uk or www.worthing.gov.uk
e-mail : planning@adur-worthing.gov.uk

EXTRACTED 04813710

Adur & Worthing councils

Application for Planning Permission.
Town and Country Planning Act 1990

Publication of applications on planning authority websites.
Please note that the information provided on this application form and in supporting documents may be published on the Authority's website.
If you require any further clarification, please contact the Authority's planning department.

1. Applicant Name, Address and Contact Details

Title: Mr & Mrs | First name: | Surname: Barnard

Company name:

Street address: 57 Victoria Road

Town/City: Brighton

County:

Country: United Kingdom

Postcode: BN42 4DJ

	Country Code	National Number	Extension Number
Telephone number:		[redacted]	
Mobile number:			
Fax number:			

Email address: thomas@tbarnard.co.uk

Are you an agent acting on behalf of the applicant? (•) Yes ( ) No

2. Agent Name, Address and Contact Details

Title: Mr | First Name: James | Surname: Boys

Company name: BPM

Street address: 33 Stoneleigh Avenue

Town/City: Brighton

County: East Sussex

Country: United Kingdom

Postcode: BN1 8NP

	Country Code	National Number	Extension Number
Telephone number:		01273 249058	
Mobile number:			
Fax number:			

Email address: info@bpmnet.co.uk

3. Description of the Proposal

Please describe the proposed development including any change of use:

Demolition of existing detached bungalow and erection of 1no. detached 3-bedroom house fronting road and 1no. detached 4-bedroom house with basement accommodation in rear garden.

Has the building, work or change of use already started? ( ) Yes (•) No

ADUR & WORTHING
PLANNING SERVICES

PLAN	AWDM/ 6200/16
DATE VALID	- 5 FEB 2016

4. Site Address Details

Full postal address of the site (including full postcode where available)

House:	55
Suffix:	
House name:	
Street address:	Victoria Road
Town/City:	Southwick
County:	West Sussex
Postcode:	BN42 4DJ

Description of location or a grid reference
(must be completed if postcode is not known):

Easting:	523865
Northing:	105117

Description:

5. Pre-application Advice

Has assistance or prior advice been sought from the local authority about this application? ○ Yes ◉ No

6. Pedestrian and Vehicle Access, Roads and Rights of Way

Is a new or altered vehicle access proposed to or from the public highway? ◉ Yes ○ No

Is a new or altered pedestrian access proposed to or from the public highway? ◉ Yes ○ No

Are there any new public roads to be provided within the site? ○ Yes ◉ No

Are there any new public rights of way to be provided within or adjacent to the site? ○ Yes ◉ No

Do the proposals require any diversions/extinguishments and/or creation of rights of way? ○ Yes ◉ No

If you answered Yes to any of the above questions, please show details on your plans/drawings and state the reference of the plan(s)/drawings(s)

7. Waste Storage and Collection

Do the plans incorporate areas to store and aid the collection of waste? ◉ Yes ○ No

If Yes, please provide details:

1275.P01A

Have arrangements been made for the separate storage and collection of recyclable waste? ◉ Yes ○ No

If Yes, please provide details:

1275.P01A

8. Authority Employee/Member

With respect to the Authority, I am:

(a) a member of staff
(b) an elected member
(c) related to a member of staff
(d) related to an elected member

Do any of these statements apply to you? ○ Yes ◉ No

9. Materials

Please state what materials (including type, colour and name) are to be used externally (if applicable):

Walls - description:

Description of *existing* materials and finishes:

Description of *proposed* materials and finishes:

Face brickwork, painted render, timber cladding, zinc cladding

Roof - description:

Description of *existing* materials and finishes:

Description of *proposed* materials and finishes:

Tiles, Zinc cladding

9. (Materials continued)

Windows - description:

Description of *existing* materials and finishes:

Description of *proposed* materials and finishes:

PVCu

Doors - description:

Description of *existing* materials and finishes:

Description of *proposed* materials and finishes:

PVCu

Boundary treatments - description:

Description of *existing* materials and finishes:

Close boarded timber fence, masonry walls

Description of *proposed* materials and finishes:

To match the existing

Vehicle access and hard standing - description:

Description of *existing* materials and finishes:

Description of *proposed* materials and finishes:

Semi-permeable covering

Are you supplying additional information on submitted plan(s)/drawing(s)/design and access statement? (•) Yes ( ) No

If Yes, please state references for the plan(s)/drawing(s)/design and access statement:

10. Vehicle Parking

Please provide information on the existing and proposed number of on-site parking spaces:

Type of vehicle	Existing number of spaces	Total proposed (including spaces retained)	Difference in spaces
Cars	0	4	4
Light goods vehicles/public carrier vehicles	0	0	0
Motorcycles	0	0	0
Disability spaces	0	0	0
Cycle spaces	0	0	0
Other (e.g. Bus)	0	0	0
Short description of Other			

11. Foul Sewage

Please state how foul sewage is to be disposed of:

Mains sewer ☒ Package treatment plant ☐ Unknown ☐

Septic tank ☐ Cess pit ☐

Other

Are you proposing to connect to the existing drainage system? ( ) Yes ( ) No (•) Unknown

12. Assessment of Flood Risk

Is the site within an area at risk of flooding? (Refer to the Environment Agency's Flood Map showing flood zones 2 and 3 and consult Environment Agency standing advice and your local planning authority requirements for information as necessary.) ( ) Yes (•) No

If Yes, you will need to submit an appropriate flood risk assessment to consider the risk to the proposed site.

Is your proposal within 20 metres of a watercourse (e.g. river, stream or beck)? ( ) Yes (•) No

Will the proposal increase the flood risk elsewhere? ( ) Yes (•) No

How will surface water be disposed of?

☐ Sustainable drainage system ☐ Main sewer ☐ Pond/lake

☒ Soakaway ☐ Existing watercourse

13. Biodiversity and Geological Conservation

To assist in answering the following questions refer to the guidance notes for further information on when there is a reasonable likelihood that any important biodiversity or geological conservation features may be present or nearby and whether they are likely to be affected by your proposals.

Having referred to the guidance notes, is there a reasonable likelihood of the following being affected adversely or conserved and enhanced within the application site, OR on land adjacent to or near the application site:

a) Protected and priority species

○ Yes, on the development site ○ Yes, on land adjacent to or near the proposed development ◉ No

b) Designated sites, important habitats or other biodiversity features

○ Yes, on the development site ○ Yes, on land adjacent to or near the proposed development ◉ No

c) Features of geological conservation importance

○ Yes, on the development site ○ Yes, on land adjacent to or near the proposed development ◉ No

14. Existing Use

Please describe the current use of the site:

Detached bungalow

Is the site currently vacant? ○ Yes ◉ No

Does the proposal involve any of the following?
If yes, you will need to submit an appropriate contamination assessment with your application.

Land which is known to be contaminated? ○ Yes ◉ No

Land where contamination is suspected for all or part of the site? ○ Yes ◉ No

A proposed use that would be particularly vulnerable to the presence of contamination? ○ Yes ◉ No

15. Trees and Hedges

Are there trees or hedges on the proposed development site? ◉ Yes ○ No

And/or: Are there trees or hedges on land adjacent to the proposed development site that could influence the development or might be important as part of the local landscape character? ◉ Yes ○ No

If Yes to either or both of the above, you may need to provide a full Tree Survey, at the discretion of your local planning authority. If a Tree Survey is required, this and the accompanying plan should be submitted alongside your application. Your local planning authority should make clear on its website what the survey should contain, in accordance with the current 'BS5837: Trees in relation to design, demolition and construction - Recommendations'.

16. Trade Effluent

Does the proposal involve the need to dispose of trade effluents or waste? ○ Yes ◉ No

17. Residential Units

Does your proposal include the gain or loss of residential units? ◉ Yes ○ No

Market Housing - Proposed

	Number of bedrooms				
	1	2	3	4+	Unknown
Houses			1	1	
Flats/Maisonettes					
Live-Work units					
Cluster flats					
Sheltered housing					
Bedsit/Studios					
Unknown					

Proposed Market Housing Total: 2

Market Housing - Existing

	Number of bedrooms				
	1	2	3	4+	Unknown
Houses					1
Flats/Maisonettes					
Live-Work units					
Cluster flats					
Sheltered housing					
Bedsit/Studios					
Unknown					

Existing Market Housing Total: 1

Overall Residential Unit Totals

Total proposed residential units	2
Total existing residential units	1

18. All Types of Development: Non-residential Floorspace

Does your proposal involve the loss, gain or change of use of non-residential floorspace? ○ Yes ◉ No

19. Employment

If known, please complete the following information regarding employees:

	Full-time	Part-time	Equivalent number of full-time
Existing employees	0	0	0
Proposed employees	0	0	0

20. Hours of Opening

If known, please state the hours of opening (e.g. 15:30) for each non-residential use proposed:

Use	Monday to Friday Start Time	Monday to Friday End Time	Saturday Start Time	Saturday End Time	Sunday and Bank Holidays Start Time	Sunday and Bank Holidays End Time	Not Known

21. Site Area

What is the site area? 1,110 sq.metres

22. Industrial or Commercial Processes and Machinery

Please describe the activities and processes which would be carried out on the site and the end products including plant, ventilation or air conditioning. Please include the type of machinery which may be installed on site:

N/A

Is the proposal for a waste management development? ○ Yes ◉ No

23. Hazardous Substances

Is any hazardous waste involved in the proposal? ○ Yes ◉ No

24. Site Visit

Can the site be seen from a public road, public footpath, bridleway or other public land? ◉ Yes ○ No

If the planning authority needs to make an appointment to carry out a site visit, whom should they contact? (Please select only one)

○ The agent ◉ The applicant ○ Other person

25. Certificates (Certificate B)

Certificate of Ownership - Certificate B

Town and Country Planning (Development Management Procedure) (England) Order 2015 Certificate under Article 14

I certify/ The applicant certifies that I have/the applicant has given the requisite notice to everyone else (as listed below) who, on the day 21 days before the date of this application, was the owner *(owner is a person with a freehold interest or leasehold interest with at least 7 years left to run)* and/or agricultural tenant *("agricultural tenant" has the meaning given in section 65(8) of the Town and Country Planning Act 1990)* of any part of the land or building to which this application relates.

Owner/Agricultural Tenant				Date notice served
Name	Alleen Paxton and David Robertson			
Number:	122	Suffix:	House name:	
Street:	Downland Avenue			05/02/2016
Locality:				
Town:	Southwick			
Postcode:	BN42 4RY			

Title: Mr First name: Courtney Surname: Darby

Person role: Applicant Declaration date: 05/02/2016 ☒ Declaration made

26. Declaration

I/we hereby apply for planning permission/consent as described in this form and the accompanying plans/drawings and additional information. I/we confirm that, to the best of my/our knowledge, any facts stated are true and accurate and any opinions given are the genuine opinions of the person(s) giving them. ☒ Date 05/02/2016

PJC Consultancy
Arboricultural and Ecological Consultants

Arboricultural Survey

55 Victoria Road
Southwick
BN42 4DJ

Report compiled by:
Peter Davies
FdSc Arboriculture M.Arbor.A

PJC CONSULTANCY LTD

PJC Ref No: PJC/3641/15

PJC Consultancy
Arboricultural and Ecological Consultants

Summary

This report was commissioned to satisfy the requirements of arboricultural issues defined by planning policy, at the request of Mr Thomas Barnard.

The proposed project should not affect existing and/or retained trees on the site as long as protection measures set out in BS5837: 2012 *Trees in relation to design, demolition and construction* and recommendations outlined in this report are followed.

Objectives of this report

PJC Consultancy's involvement in this project can be defined by the following objectives:

To provide a schedule of the existing trees that are situated in areas that are likely to be potentially affected by the proposed construction project.

To classify the existing trees using the process defined by BS5837: 2012 '*Trees in relation to design, demolition and construction – Recommendations*'.

To provide arboricultural guidance on protection measures to be implemented during the construction process, and prevent future conflict between trees and structures.

To promote the retention of existing trees wherever feasible and appropriate.

PJC Consultancy
Arboricultural and Ecological Consultants

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1 INTRODUCTION

1.1 **Brief:** I have been commissioned by Mr Thomas Barnard to provide an arboricultural survey of 55 Victoria Road in Southwick.

1.2 **Documents and information provided:** I was provided with the following documents relating to the site:

- OS Site Location Plan
- Drawing ref. 7863 – Topographical Survey

1.3 **Scope of this report:** This report is only concerned with the trees within the property boundaries of the site, or in areas that have the potential to be affected by construction works.

1.4 **Background information:** A proposal has been outlined to replace the existing dwelling at 55 Victoria Road with two semi-detached dwellings on the road frontage and a new detached dwelling on the land to the rear of the property. PJC Consultancy has been commissioned to undertake an arboricultural survey following the guidelines set out in BS5837: 2012 '*Trees in relation to design, demolition and construction – Recommendations*' to help guide the design process.

1.5 **Qualifications:** I have a Foundation Degree in Arboriculture and am a professional member of the Arboricultural Association. I have nine years experience in the arboricultural industry, originally working as a groundsman and feller, and progressing into consultancy.

2 SITE VISIT AND OBSERVATIONS

2.1 **Site visit:** I carried out a site visit on 2nd March 2015. The weather conditions at the time were clear and dry with a light breeze. The visibility was good.

2.2 **Site Location:** The site is situated on Victoria Road, to the north of Shoreham Harbour. The surrounding land use is comprised of the Sussex Country Croquet and Lawn Tennis Club to the north west and residential properties on all remaining aspects.

2.3 **Brief site description:** The site comprises a disused bungalow building with a long garden extending to the boundary of the lawn tennis club. The garden is overgrown and contains a number of derelict garden sheds. Several small trees are located throughout the garden with larger mature specimens located outside the site boundary.

2.4 **Identification and location of trees:** The trees are not number tagged but their locations are marked on the Tree Constraints Plan in Appendix 1. Each tree has been given an individual reference number of ease of identification.

2.5 **Tree observations:** I visually inspected the trees from within the boundaries of the property and from areas of public access. The height, crown spread and crown clearance for each tree was estimated to the nearest metre. The DBH (stem diameter at 1.5 meters) was measured in millimetres using a diameter tape. Where access was not available, stem diameters were estimated and noted on the Tree Survey Schedule.

2.6 **Limitations of the Survey:** The survey methodology was restricted to a visual tree assessment. No tree climbing or ground investigation was carried out for this report.

3 APPRAISAL

3.1 The trees were assessed and categorised using the cascade chart in BS5837: 2012 *Trees in relation to design, demolition and construction – Recommendations.* Their dimensions were recorded, and their positions plotted on the Tree Constraints Plan in Appendix 1. The Tree Survey Schedule in Appendix 2 contains more detailed information for each tree.

3.2 The categorisation of trees is based on a number of factors. The initial category is U for trees that are in such a condition that they cannot realistically be retained as living trees in the context of the current land use for more than ten years. Category U trees do not necessarily need to be removed if they do not conflict with the proposed development or are not dangerous. The remaining trees are then assessed for their arboricultural, landscape and historical, (or cultural) contribution. This assessment takes into account defects and previous pruning to put the trees into A, B and C categories. The highest categorisation is category A, with the lowest being category C. Category C trees are not normally retained if they pose a constraint to development. The cascade chart further explaining the above is included in Appendix 3.

3.3 A total of thirty-four trees and one hedgerow were surveyed and recorded in the Tree Survey Schedule. Six trees were categorised as B with twenty-two trees and one hedgerow categorised as C. The predicted contribution of six trees is less than ten years, leading to their categorisation as U.

3.4 The most prominent trees at this site are the mature sycamores (*Acer pseudoplatanus*) situated on either side of the western site boundary. These specimens form part of a tree line along the edge of the lawn tennis club, which extends past the boundaries of the proposed development site.

3.5 Collectively, the sycamores on the western boundary have very good landscape value. There is however variation in their condition. The largest and most important sycamores comprise T28, T29 and T31. These have been awarded category B. Tree T8 and T30 are located within the site boundary but have uneven growth habits as a result of light suppression. They have been awarded category C. T9 is growing through the boundary chain link fence and has no development potential. It is recommended that T9 be removed regardless of the proposed development to prevent further damage to the fence. T32 is located within the boundary of 61 Victoria Road. The entire canopy of this tree overhangs the site as a result of light suppression from third party trees.

3.6 The trees located within the site are of lesser arboricultural and landscape value. The most common species within the site is apple (*Malus domestica*), with pear (*Pyrus communis*), cherry (*Prunus avium*), cypress (*Thuja plicata*), fig (*Ficus carica*) and sumac (*Rhus typhina*) also present. The majority of these trees are small or of impaired condition, leading to their categorisation as C or U. The cherry located on the eastern boundary, T20, is of relatively good condition and is visible from several third party gardens. It has been awarded category B for its amenity value.

3.7 There is a third party brick building located along the northern edge of the garden. It should be assumed that the footings of this building will act as a barrier to root growth. The root protection areas of trees T11 to T15 will need to account for this rooting constraint.

3.8 A privet hedgerow currently surrounds the small front garden area. It currently serves to screen views of the semi-derelict bungalow. When the building has been demolished, the hedgerow will no longer be required from a screening perceptive. T34 is a mature elder (*Sambucus nigra*) shrub located within the hedgerow. Although this shrub is of good condition, it grows beneath an overhead phone line and will required regular pruning in the future to avoid conflict.

3.9 Tree T35 is a mature Norway maple (*Acer platanoides 'crimson king'*) street tree located outside the front of the site. The root protection area of this tree will need to be considered in relation to driveways and potential new crossovers onto Victoria Road.

4 RECOMMENDATIONS

4.1 Each tree's DBH (stem diameter at 1.5m) was recorded, and applied to the formula found in Appendix 4. The resulting dimensions equal each trees root protection areas that are plotted on to the Tree Constraints Plan in Appendix 1, and added to the Tree Survey Schedule in Appendix 2. These are represented as a circle on the plan (unless significant rooting constraints are present), and are colour coded depending on the category they were classed in using the cascade chart in Appendix 3.

4.2 The disturbance of a tree's root system can result in crown dieback and even death of the tree. Roots are used to support the tree structurally and act as transport for water and nutrients. Direct damage such as root severance can lead to ill health, as can compaction of the soil by construction traffic, heavy plant and storage of materials. Changing the nature of the surface above growing medium, i.e. from porous to non-porous can alter the resources available to the tree, which in turn can lead to its decline.

4.3 The root protection areas must be left free from excavation and disturbance, and protected from compaction or contamination during any proposed works. Protection should be in the form of fencing as defined in Appendix 5, and signs affixed as shown in Appendix 6.

4.4 The default position should be that buildings and road surfaces are located outside the root protection areas of retained trees. If there is an overriding reason that construction works do occur within a root protection area, arboricultural advice should be sought regarding the suitability of the tree, the level of encroachment and what types sensitive construction techniques are feasible/appropriate.

4.5 The shade cast by trees should be considered during the design phase. Dwellings and gardens that are over shaded from prolonged periods can result in significant pressure from future occupants to carry out harsh pruning works or to remove trees post development. The greatest amount of shade cast by trees onto this site will be from the mature sycamores on the western boundary. These trees will cast shade onto the northern section of the site, where the proposed detached dwelling will be sited. The shade cast by these trees will generally only affect the site in the afternoons. Crown thinning and reductions to improve light availability is only a temporary solution to tree shade. It is not recommended that future crown maintenance works be relied upon to ensure suitable light levels for the development. Instead, it is recommended that the new detached dwelling be sited as far away from the sycamores as is feasible and the consideration be given to the positions of the main light providing windows.

4.6 In addition to shade cast by trees, pressure for future tree works and removal can result from seasonal nuisance (leaf drop onto pathways, parking areas and roof guttering) and the over-bearing presence of large trees.

4.7 Allowance should be made for future canopy growth of both existing and newly planted trees. Trees growing in areas of limited space may require regular future pruning works. The suitability of different species for regular crown reductions and the cost of future tree works should be considered.

4.8 Any final design should show service locations and their routing. New utilities should be located outside of the trees root protection areas where they are underground and outside of the anticipated area of mature crown spread where above ground. If this is not possible, recommendations outlined in NJUG10 '*Guidelines for the planning, installation and maintenance of utilities in proximity to trees*' should be followed. Advice should also be sought from the project arboriculturalist.

4.9 To comply with BS5837: 2012, it is recommended that an arboricultural impact assessment be produced when the proposed layout has been finalised. The arboricultural impact assessment should include a schedule of trees to be retained and removed, evaluate the likely effects of construction works on retained trees including post development stresses and provide recommendations on mitigation measures to be implemented. It should also include a Tree Protection Plan.

4.10 Due to the frequency of trees located throughout the site, it is highly likely that tree removal will be required to facilitate the proposed project. Where tree removal is necessary to facilitate the wider regeneration benefits associated with development, a tree replacement strategy could be implemented to mitigate tree loss.

4.11 A pre-commencement meeting with all parties and the Local Authority Arboricultural Officer is recommended to agree working methods before any works are undertaken. All contractors should be briefed about tree related site factors as part of the site safety briefing.

5 CONCLUSIONS

5.1 The majority of trees located within the site are small or of impaired condition and have been awarded category C or U. These trees should not be retained if they pose a constraint to development. Consideration should be given to the incorporation and protection of the category B sycamores on the western site boundary and the Norway maple street tree on the road frontage.

5.2 Although a number of small trees and woody shrubs have been recommended for removal if they pose a constraint to development, their loss should not be detrimental to wider landscape or have an adverse impact on local visual amenity. Their loss could be mitigated by replanting with suitable species in an appropriate location during the soft landscaping phase of construction. If this is carried out consideration should be given to their location to avoid conflict with the proposed building and associated services.

6 OTHER CONSIDERATIONS

6.1 Any persons proposing to undertake tree works must check the status of these trees with the local authority, and gain necessary consent before works are undertaken.

6.2 Financial penalties and/or criminal proceedings can result if tree works are carried out on a protected tree without consent. The entirety of the tree is protected, both above and below ground.

6.3 Trees should be checked for protected species before works are undertaken. It is against the law to disturb bats or their roosts under the Conservation of Habitat and Species Regulations. Nesting birds are protected by the Wildlife and Countryside Act. If protected species are discovered, Natural England should be contacted for advice.

6.4 The trees at this site were assessed for their condition and safety in relation to the average range of weather conditions that the region experiences. Any weather events that exceed the average norm cannot be predicted, and so their effects are not considered within this report.

6.5 The views and opinions contained within this report are entirely those of the author.

7 IMPLEMENTATION OF WORKS

7.1 The works contractors should carry out all tree works to BS3998: 2010 '*Tree works – recommendations*', as modified by research that is more recent. They should also carry relevant, adequate and up to date insurance.

7.2 It is also recommended that all tree works be carried out by an Arboricultural Association approved contractor. Approved contractors are expected to work to industry best standards, and the Arboricultural Association website contains contact details and information on engaging a suitable contractor.

PJC Consultancy
Arboricultural and Ecological Consultants

Contact details

PJC Consultancy Ltd
Chapter House
Priesthawes Farm
Hailsham Road
Polegate
East Sussex
BN26 6QU

Tel: 01323 768155
Fax: 01323 768244

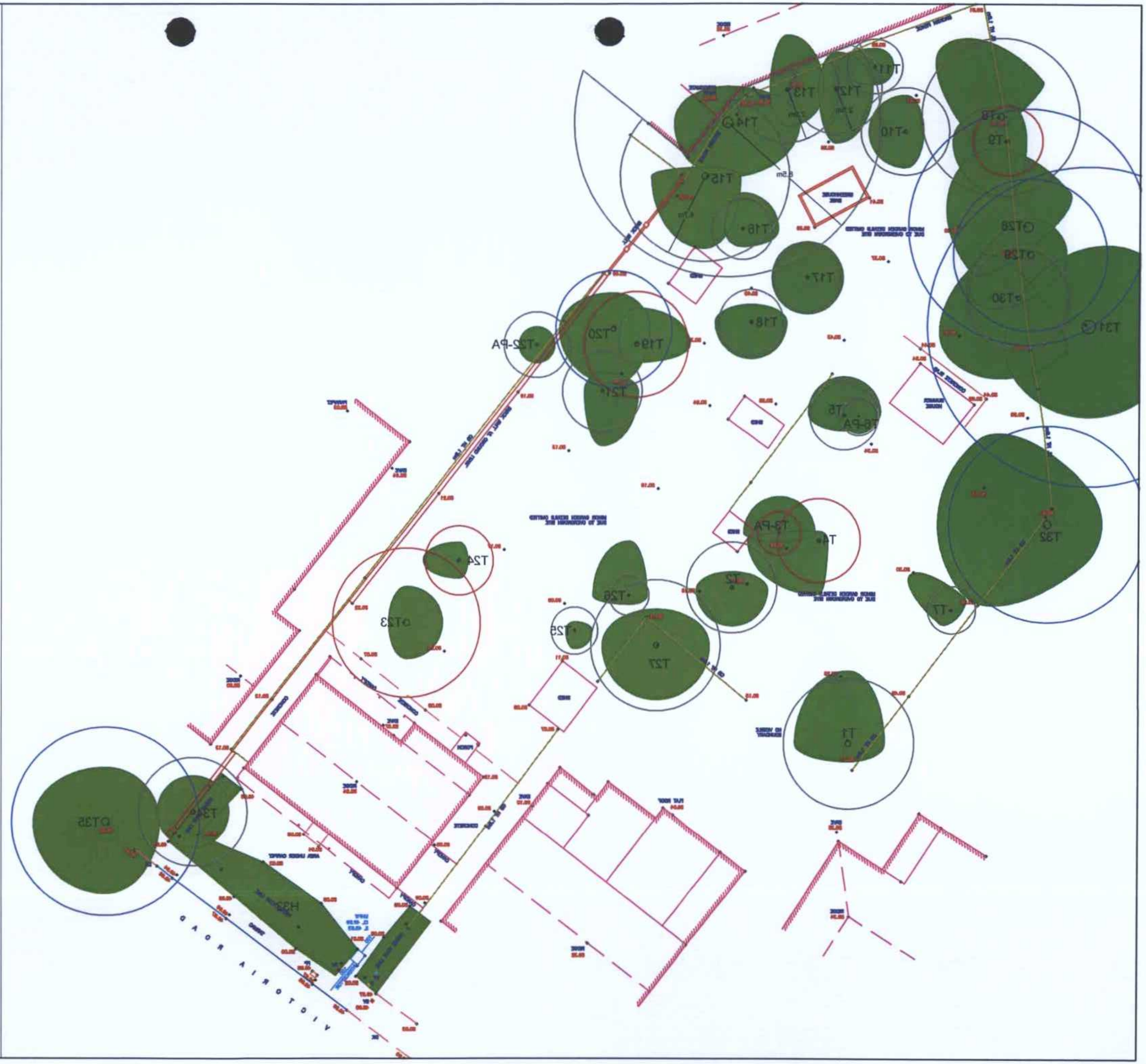
E-mail: pete@pjcconsultancy.com

Author: Peter Davies

Date: 5th March 2015

PJC Consultancy
Arboricultural and Ecological Consultants

APPENDIX 1 Tree Constraints Plan and Tree Shadow Plan



Key:

RPA for CAT B Tree*

RPA for CAT C Tree*

RPA for CAT U Tree*

Tree canopy

*** Tree categorised in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.**

Appendix 2, (Tree Survey Schedule) contained within the arbohcultural repot ref. no. PJC/3564/1/15 contains further information for each tree.

This drawing should be viewed in colour.

Tree numbers suffixed with PA indicate the tree position is approximate.

Site: 55 Victoria Road, Southwick

Client: Thomas Barnard

Surveyor: Peter Davies

Date Drawn: 10/03/15

Scale: 1:200 at A3

Drawing Number: PJC/3564/1/15/B

Drawing Title: Tree Constraints Plan

PJC Consultancy
Chapter House, Priesthawes Farm, Hailsham Road, Polegate, East Sussex, BN26 6QU
t: 01323 768155 f: 01323 768244 w: www.pjcconsultancy.com

Key:

Tree shadow

Tree canopy

Appendix 2. (Tree survey Schedule) contained within arboricultural report ref. PJC/364/14/S contains further information for each tree.

Tree shadows plotted using guidance set out in BS5837: 2012 - Trees in relation to design, demolition and construction - Recommendations. The trees existing height is used to calculate the radius of the shadow segment, plotted from north west to east as an arc.

Please note the plotted shadows represent shadow cast throughout the typical day, and not the total shadow cast at a given moment.

This drawing should be viewed in colour.

Site: 55 Victoria Road, Southwick

Client: Thomas Barnard

Surveyor: Peter Davies

Data Drawn: 10/03/15

Scale: 1:200 at A3

Drawing Number: PJC/364/15/C

Drawing Title: Tree Shadow Plan

PJC Consultancy
Chapter House, Pheasantmere Farm, Hellingham Road, Polegate, East Sussex, BN26 6DU
t: 01323 768150 f: 01323 768624 w: www.pjconsultancy.com

PJC Consultancy
Arboricultural and Ecological Consultants

APPENDIX 2 Tree Survey Schedule

Tree Survey Schedule

plc Consultancy
Arboricultural and Ecological Consultants

Client: Thomas Barnard
Site: 55 Victoria Road, Southwick
Survey date: 02/03/2015
Surveyor: Peter Davies

T: Individual tree or shrub
G: Group of 2 or more trees
H: Hedgerow
W: Woodland block

Tree ref. no.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Preliminary management recommendation	Category grading	Root Protection Area (m2)	Root Protection Radius (m)
T1	Fig (Ficus carica)	7	250, 170	N: 4 E: 3 S: 1 W: 2	0.5 north	Mature	Good	Fair	Dual stemmed from ground level with basal cavity. Previously reduced over adjacent garden	No action required on date of survey	C1	41.3	3.6
T2	Cypress (Thuja plicata)	5	210	N: 1 E: 2 S: 2 W: 2	1 south	Semi mature	Fair	Poor	Poor form. Dead limbs hung up in canopy	Removed deadwood hung up in canopy	C1	20	2.6
T3	Cypress (Thuja plicata)	5	100	N: 2 E: 2 S: 0 W: 2	2 west	Young	Poor	Poor	Very sparse canopy, smothered by ivy. Ivy appears also to be supporting stem	Fell if tree posses constraint to development	U	4.5	1.2
T4	Sumac (Rhus typhina)	5	190	N: 0 E: 4 S: 3 W: 0	1 east	Early mature	Poor	Poor	Strong east lean. Very sparse canopy, smothered by ivy	Fell it tree posses constraint to development or it T3 is removed	U	16.3	2.3
T5	Apple (Malus domestica)	3	160	N: 2 E: 2 S: 1 W: 2	1 average	Young	Fair	Fair	Fair overall condition. Canopy smothered by bindweed.	Strip bindweed from canopy and clear around buttress	C1	11.6	1.9
T6	Skimmia japonica	2	80 est	N: 1 E: 1 S: 1 W: 1	0 average	Young	Fair	Fair	Small shrub	No action required on date of survey	C1	2.9	1

Tree Survey Schedule

plc Consultancy
Arboricultural and Ecological Consultants

Client: Thomas Barnard
Site: 55 Victoria Road, Southwick
Survey date: 02/03/2015
Surveyor: Peter Davies

T: Individual tree or shrub
G: Group of 2 or more trees
H: Hedgerow
W: Woodland block

Tree ref. no.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Preliminary management recommendation	Category grading	Root Protection Area (m2)	Root Protection Radius (m)
T7	Sumac (Rhus typhina)	3	110	N: 0 E: 4 S: 3 W: 0	0.5 east	semi mature	Good	Fair	Strong east lean	No action required on date of survey	C1	5.5	1.3
T8	Sycamore (Acer pseudoplatanus)	11	360	N: 3 E: 5 S: 2 W: 0	5 east	Early mature	Good	Fair	Tree abuts agglirat chain link fence. 1 sided canopy due to suppression	Remove small area of chain link fence immediately adjacent to stem	C2	58.6	4.3
T9	Sycamore (Acer pseudoplatanus)	6	100, 100, 60, 50	N: 2 E: 3 S: 3 W: 1	2 east	Semi mature	Good	Poor	Small tree previously pollarded at 1m. Grows through chain link fence	No development potential. Remove to avoid further damage to fence	U	11.8	1.9
T10	Apple (Malus domestica)	4	140, 100, 100	N: 3 E: 3 S: 3 W: 1	1 south	Semi mature	Good	Good	Small tree. Generally of good condition	Remove brambles avoid further damage to fence	C1	17.9	2.4
T11	Apple (Malus domestica)	3	80, 70, 60	N: 1 E: 2 S: 1 W: 1	1.5 average	Young	Good	Fair	Multi-stemmed from 1m. Branches resting on adjacent roof.	Remove brambles resting in roof guttering and overhanging roof	C1	6.7	1.5
T12	Apple (Malus domestica)	6	170, 110	N: 2 E: 1 S: 3 W: 2	1 average	Early mature	Good	Fair	1x main stem and 1x secondary stem. No evidence of past pruning.	Reduce canopy by 2m in height or to manageable size	C1	18.5	2.4

Tree Survey Schedule

plc Consultancy
Arboricultural and Ecological Consultants

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G: Group of 2 or more trees
H: Hedgerow
W: Woodland block

Tree ref. no.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Preliminary management recommendation	Category grading	Root Protection Area (m2)	Root Protection Radius (m)
T13	Hazel (Corylus avellana)	5	N/A (200 est)	E: 1 S: 2 W: 2	0 average	Early mature	Good	Fair	Typical habit for species	No action required on date of survey	C1	18.1	2.4
T14	Sycamore (Acer pseudoplatanus)	9	350, 230, 220, 200, 120, 120, 70	N: 2 E: 3 S: 3 W: 4	2 west	Early mature	Good	Poor	8x stems from ground level. Previously pollarded at approximately 7m.	Sever ivy where possible	C1	141.1	6.7
T15	Pear (Pyrus communis)	7	230, 220, 170	N: 2 E: 3 S: 4 W: 2	1 south	Mature	Good	Fair	1 sided canopy due to suppression from T14	Carefully sever ivy around buttress	C1	58.9	4.3
T16	Apple (Malus domestica)	3	140	N: 2 E: 1 S: 1 W: 2	1 average	Semi mature	Good	Good	Small tree, previously heavily reduced. Scale insect damage to bark.	No action required on date of survey	C1	8.9	1.7
T17	Apple (Malus domestica)	3	160	N: 2 E: 2 S: 2 W: 2	0.5 average	Semi mature	Good	Fair	Small tree, previously heavily reduced. Scale insect damage to bark.	No action required on date of survey	C1	11.6	1.9
T18	Apple (Malus domestica)	3	150	N: 1 E: 2 S: 2 W: 2	1 west	Semi mature	Good	Good	Small tree, no major visible defects	No action required on date of survey	C1	10.2	1.8

Tree Survey Schedule

Arboricultural and Ecological Consultants

Client: Thomas Barnard
Site: 55 Victoria Road, Southwick
Survey date: 02/03/2015
Surveyor: Peter Davies

T: Individual tree or shrub
G: Group of 2 or more trees
H: Hedgerow
W: Woodland block

Tree ref. no.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Preliminary management recommendation	Category grading	Root Protection Area (m2)	Root Protection Radius (m)
T19	Apple (Malus domestica)	3	160, 140, 110	N: 2 E: 1 S: 1 W: 3	1 west	Early mature	Poor	Poor	3x stems from ground level. Extensive crown dieback	Fell it tree posses constatint to development	U	25.9	2.9
T20	Cherry (Prunus avium)	8	270	N: 2 E: 3 S: 3 W: 2	1.5 east	Mature	Good	Good	Typical habit for species, no major visible defects	Crown lift by removing single lateral limb at 0.5m (for aesthetics)	B1	83	3.2
T21	Apple (Malus domestica)	4	180	N: 1 E: 1 S: 3 W: 2	2 west	Early mature	Fair	Fair	Growing beneath canopy of cherry; minor crown dieback	No action required on date of survey	C1	14.7	2.2
T22	Holly (Ilex aquifolium)	4	150 est	N: 1 E: 1 S: 1 W: 1	2 over site	Semi mature	Good	Good	Third party tree located adjacent to site boundary	No action required on date of survey	C1	10.2	1.8
T23	Pear (Pyrus communis)	5	340	N: 2 E: 1 S: 2 W: 2	2 south	Over mature	Poor	Poor	Significant crown dieback and abundant deadwood	Fell it tree posses constatint to development	U	52.3	4.1
T24	Pear (Pyrus communis)	4	160	N: 1 E: 2 S: 1 W: 0	1.5 east	Early mature	Poor	Poor	Significant crown dieback and abundant deadwood	Fell it tree posses constatint to development	U	11.6	1.9

Tree Survey Schedule

T: Individual tree or shrub G: Group of 2 or more trees H: Hedgerow W: Woodland block	Client: Thomas Barnard Site: 55 Victoria Road, Southwick Survey date: 02/03/2015 Surveyor: Peter Davies		

Tree ref. no.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Preliminary management recommendation	Category grading	Root Protection Area (m2)	Root Protection Radius (m)
T25	Apple (Malus domestica)	2	110	N: 0.5 E: 0.5 S: 1 W: 1	1 south	Young	Fair	Fair	Small tree, previously reduced	No action required on date of survey	C1	5.5	1.3
T26	Apple (Malus domestica)	3	60, 50, 50	N: 3 E: 2 S: 0 W: 2	1 west	Young	Fair	Fair	1 sided growth due to suppression from willow	No action required on date of survey	C1	3.9	1.1
T27	Prunus pisseardii	6	300 est	N: 2 E: 3 S: 3 W: 3	2 south	Early mature	Good	Good	Third party tree, only viewed from within site boundary	No action required on date of survey	C1	40.7	3.6
T28	Sycamore (Acer pseudoplatanus)	15	540	N: 3 E: 5 S: 4 W: 1	6 east	Mature	Good	Good	Third party tree, small cavity in old pruning wound on stem. 1 sided canopy	No action required on date of survey	B2	131.9	6.5
T29	Sycamore (Acer pseudoplatanus)	15	350	N: 2 E: 2 S: 4 W: 2	4 south	Mature	Good	Good	Third party tree. Minor bark damage on stem. Drawn up habit.	No action required on date of survey	B2	55.4	4.2
T30	Sycamore (Acer pseudoplatanus)	9	230	N: 1 E: 3 S: 5 W: 4	2 south	Early mature	Good	Fair	1 sided canopy due to suppression from third party sycamores	No action required on date of survey	C2	23.9	2.8

Tree Survey Schedule

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Site: 55 Victoria Road, Southwick
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plc Consultancy
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T: Individual tree or shrub
G: Group of 2 or more trees
H: Hedgerow
W: Woodland block

Tree ref. no.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Preliminary management recommendation	Category grading	Root Protection Area (m2)	Root Protection Radius (m)
T31	Sycamore (Acer pseudoplatanus)	14	730	N: 5 E: 4 S: 5 W: 5	5 over site	Mature	Good	Good	Good condition, form and vigour.	No action required on date of survey	B2	241.1	8.8
T32	Sycamore (Acer pseudoplatanus)	13	450 east	N: 3 E: 6 S: 6 W: 3	2.5 over site	Mature	Good	Fair	Thrid party tree, heavily ivy clad. Majority of canopy overhangs site	No action required on date of survey	B2	91.6	5.4
H33	Privet (Ligustrum vulgare)	2-3 average	NVA	1 average	0 average	Early mature	Good	Fair	Regularly pruned on pavement side only	Prune back to formal hedgerow	C2	NVA	1m from face of hedgerow
T34	Elder (Sambucus nigra)	5	250 east	N: 2 E: 2 S: 2 W: 2	2 over site	Mature	Good	Good	Unclear if third party tree. Grows beneath phone line	Light reduce away from phone line	C2	28.3	3
T35	Norway maple (Acer platanoides 'crimson king')	8	430	N: 3 E: 4 S: 4 W: 3	5 south	Mature	Good	Good	Street tree, previously pollarded, regularly pruned	No action required on date of survey	B2	83.9	5.2

APPENDIX 3 Cascade Chart for Tree Quality Assessment

Cascade chart for tree quality assessment

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Category and definition	Criteria (including subcategories where appropriate)	Identification on plan
Trees unsuitable for retention		
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of their current land use for longer than 10 years	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after the removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality Note Category U trees can have existing or potential conservation value which it might be desirable to preserve	Red
Trees to be considered for retention		
1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that contribute significantly to the overall character and setting of the site, or to the character and appearance of the wider area (e.g. principal arboricultural features, or trees in groups, avenues or woodlands particularly visible to the public)	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant but remediable defects, including unsymmetrical growth such that they are unlikely to be suitable for retention for beyond 40 years; or trees in groups or woodlands that are growing as collective features, rather than as individuals, or trees occurring as collectives but situated so as to make little visual contribution to the wider locality Trees presenting in numbers, usually growing as part of a group of woodlands, such that they attract a higher value than they might as individuals; or trees with material conservation or other cultural value	Blue
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories Trees presenting in groups or woodlands, but without this contributing significantly to the landscape value; and/or trees of low quality, or young trees with no material conservation or other cultural value	Grey

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APPENDIX 4 Root Protection Area Formulas

CALCULATING THE RPA

For single stemmed trees

$$\mathbf{RPA(m^2) = \frac{(stem\ diameter\ (mm)\ @\ 1.5\ m \times 12)^2 \times 3.142}{1000}}$$

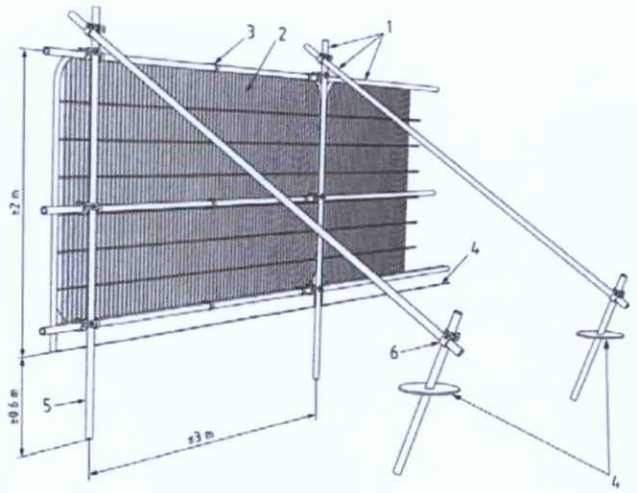
For trees with two to five stems, a combined stem diameter is calculated as follows:

$$\mathbf{\sqrt{(stem\ diameter\ 1)^2 + (stem\ diameter\ 2)^2 \ldots + (stem\ diameter\ 5)^2}}$$

For trees with more than five stems, the combine stem diameter is calculated as follows:

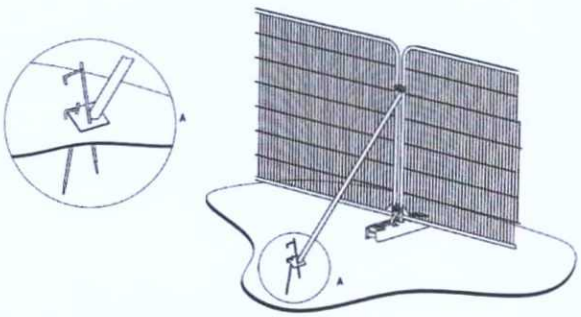
$$\mathbf{\sqrt{(mean\ stem\ diameter)^2 \times number\ of\ stems}}$$

APPENDIX 5 Tree Protection Fencing Specification

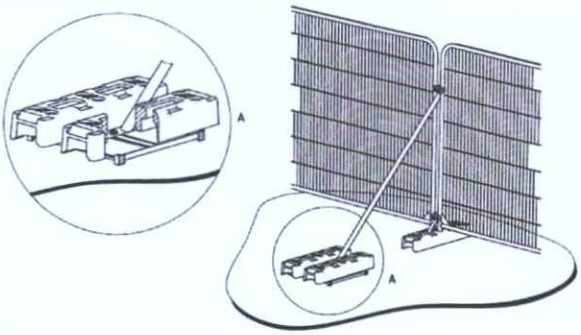


Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

APPENDIX 6 Example Protective Fencing Signs





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APPENDIX 7 Photographs



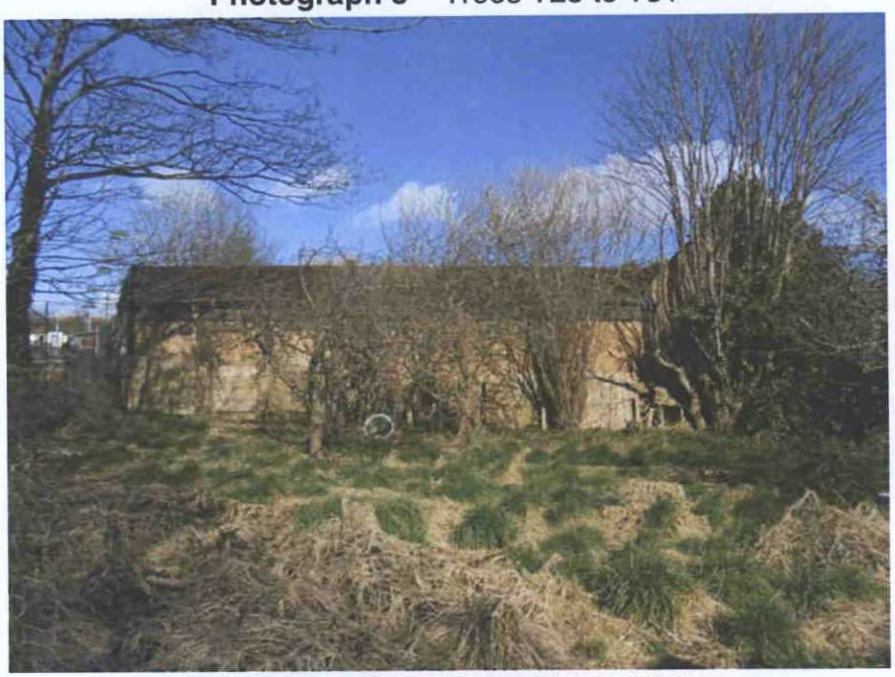
Photograph 1 – Tree T1



Photograph 2 – Tree T32



Photograph 3 – Trees T28 to T31



Photograph 4 – Trees T10 to T14



Photograph 5 – Trees T2 to T4



Photograph 6 – Tree T35

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Protected Species Walkover survey and Preliminary Ecological Appraisal

55 Victoria Road, Southwick

Author: Sam Lunn

3rd March 2015

The Ecology Co-operation Ltd
Registered Office: Greens Court, West Street, Midhurst, West Sussex, GU29 9NQ
Company number:8905527

Report Summary:

1. A survey was undertaken on 03/03/15 by Sam Lunn, to assess the ecological value of 55 Victoria Road, Southwick where it is proposed to demolish the current building and build a new property in the northern part of the site.

2. The site is predominantly semi-improved grassland with five sheds, two very small ponds and a number of mature trees.

3. The disused building set to be demolished and three of the five sheds have low potential for roosting bats. The long, semi-improved grassland has high foraging potential and there are numerous piles of dead leaves and foliage, fallen trees covered in dead ivy that have high potential to be natural hibernacula for the three common species of reptile; grass snake (*Natrix natrix*), common lizard (*Zootoca vivipara*) and slow worm (*Anguis fragilis*).

4. A new mixed native hedgerow should be planted along the northwest boundary to increase the potential habitat for nesting birds and replace any lost nesting habitat from the demolished sheds.

This report has been prepared by The Ecology Co-operation Ltd, with all reasonable skill, care and diligence within the terms of the Contract with the client. This report only becomes the property of the client once payment for it has been received in full.

We disclaim responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

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1 INTRODUCTION

1.1 Purpose of the Report

This report gives details of a preliminary ecological appraisal for the potential of protected species to be present at 55 Victoria Road, Southwick. The grid reference for the site is TQ 238 051.

This survey assessment was carried out by Sam Lunn, an associate member of the Chartered Institute for Ecology and Environmental Management (CIEEM).

This survey and report was carried out and produced at the request of Thomas Eggar LLP.

1.2 Background

This report is intended to assess the current ecological value of 55 Victoria Road, Southwick. The site consists of an empty residential house with a large garden to the north and has residential buildings either side of it with Victoria Road running along the southern boundary. To the west are several playing fields and tennis courts to the north, more residential buildings lie to the east and a railway line runs horizontally to the south.

The proposed development is to demolish the current building in the south and build a new property in the northern part of the site.

This report describes the results of a preliminary ecological appraisal for the potential presence or likely absence of protected species or habitats. Where necessary this report outlines mitigation measures considered necessary to protect wildlife as well as compensate for any harm that may have already taken place during the clearing of the site.

2.1 Preliminary Ecological Appraisal

A preliminary ecological appraisal was carried out on 03/03/15 to evaluate the site for habitats potentially suitable to support EU and UK protected species. The populations of the following species or taxanomic groups are often recorded within rural settings similar to that of the site on Victoria Road; badger (*Meles meles*), bats, nesting birds, dormouse (Muscardinus avellanarius), great crested newt (*Triturus cristatus*), and the more widespread species of reptiles such as common lizard (*Zootoca vivipara*), slow worm (*Anguis fragilis*) and grass snake (*Natrix natrix*).
Methods detailed by the following authors were used in the assessment of either suitable habitat to support the above species or taxonomic groups or in some cases direct evidence that the species were present[1][2][3][4][5][7]

[1] Bright, B., Morris, P., Mitchell-Jones, A.J. and Mitchell-Jones, T (1997) *The Dormouse*

2 SURVEY METHODOLOGY

2.1 Scope of the survey

A protected species walkover assessment was carried out on 03/03/15 to evaluate the site for its potential to support protected species. Taking into consideration the geographical region and habitat type, species that could be encountered are:

- Badger;
- Bats;
- Nesting birds;
- Dormouse
- Great crested newt and;
- Reptiles.

In addition, observations of any important plant communities or other valuable ecological features will have been recorded and detailed. Details of initial survey method for each species are given below.

2.1.1 Badger

An initial assessment was carried out to identify areas that might be used by Badgers (*Meles meles*). Signs of Badgers including setts, incidental foraging signs, runs and latrines, are recorded if encountered during the survey.

2.1.2 Bats

Trees, buildings, and other structures were assessed for the potential to support roosting bats. Bats can use a variety of roost areas including trees with holes, splits, cracks, cavities, Ivy and loose bark as well as a variety of roosting areas within buildings.

A detailed survey was carried out looking for any evidence indicating the presence of bats using buildings or trees, such as rub marks, staining or droppings outside any potential roost sites.

Conservation Handbook. English Nature.

[2] English Nature (2001) *Great Crested Newt Mitigation Guidelines*. English Nature, Peterborough.

[3] Harris, S, Cresswell, P. and Jefferies, D. (1989) *Surveying Badgers*. Mammal Society.

Hundt, L (2012) *Bat Surveys*: *Good Practice Guidelines*, *2nd edition*. Bat Conservation Trust.

[4] Oldham, R.S., Keeble, J., Swan, M.J.S. and Jeffcote, M. (2000) Evaluating the suitability of habitat for the great crested newt (*Triturus cristatus*). *Herpetological Journal* 10, 143-155.

[5] Hundt, L (2012) *Bat Surveys*: *Good Practice Guidelines*, *2nd edition*. Bat Conservation Trust.



If any definite signs of bats or other evidence had been found (such as actual sightings, droppings, urine stains, odour, scratch marks, grease stains and feeding remains), they would have been recorded.

2.1.3 Breeding Bird Habitat

Habitats were assessed for their suitability for nesting birds. This could include ground nesting species, such as skylark (*Alauda arvensis*) and lapwing (*Vanellus vanellus*) or birds that favour urban environments. Where buildings were present, possible use by starlings (*Sturnus vulgaris*) house sparrow (*Passer domesticus*), or barn owls (*Tyto alba*).

2.1.4 Dormouse

Habitats were assessed for their potential to support dormice. Suitable habitats include woodland, hedgerows that are well connected within a landscape and that connect to suitable woodland habitat. In particular, dormice favour woodland with hazel and a mixture of deciduous trees, though some coniferous woodlands are rarely used. Feeding remains can be identified through a nut search for recently chewed hazelnuts, as dormice chew into the nuts by creating a neat small chewed hole, which is not replicated by any other mammals.

2.1.5 Great Crested Newt

Initial surveys centre on identifying suitable habitat. If there are ponds or wet ditches that are considered to be suitable breeding habitats for Great Crested Newt (*Triturus cristatus*) within 500 m that are not isolated from the site by unsuitable habitat or physical barriers, then this species could be using terrestrial habitat on the site.

2.1.6 Reptiles

The site was assessed for reptiles, with particular attention paid to those features that provide suitable basking areas (*e.g.* south-facing slopes), hibernation sites (*e.g.* banks, walls, piles of rotting vegetation) and opportunities for foraging (rough grassland and scrub).

2.2 Legal Protection

Legal protection applying to relevant bird, mammal and herpetofauna species is briefly detailed in *Appendix 2* of this report.

2.2 Phase 1 Habitat Survey

A phase 1 habitat survey presents a standardised system for classifying and mapping wildlife habitats in all parts of Great Britain, including urban areas. The aim of Phase 1 survey is to provide, relatively rapidly, a record of the semi-natural vegetation and wildlife

habitat over large areas of countryside. The habitat classification is based principally on vegetation, augmented by reference to topographic and substrate features, particularly where vegetation is not the dominant component of the habitat[6].

Data is gathered through walking over a site and physically describing the dominating habitats present and often the floral species compositions of these habitats in the form of target notes. In addition to this, notable habitats, such as local and national Biodiversity Action Plan habitats are described.

Whilst the creation of a Phase 1 habitat map has not been deemed necessary in this instance, the habitats on the site have been described using the same assessment methodology and illustrated with supporting photographs.

[6] JNCC (2010) *Handbook for Phase 1 habitat survey: A technique for environmental audit.* Joint Nature Conservation Committee, Peterborough.
[7] CIEEM (2013) *Guidelines for Prelininary Ecological Appraisal*

3 RESULTS

3.1 Site Context

The proposed construction zone is the plot of land that makes up 55 Victoria Road (see fig.1). There is an old, disused property in the southern part of the site with a large rear garden in the north. It is predominantly semi-improved grassland with a central section of willowherb. There are 5 sheds, two very small ponds, a number of mature trees and several large natural hibernacula around the property. Ivy covers a lot of the site, including several of the sheds. There are also small pockets of bluebells and wild garlic. The new property is to be built at the northern end of the property. Timothy-grass (*Phleum pratense*) is the dominant grass in the area.



Figure 1. An aerial screen grab view from Google Earth of the site, showing the location of the proposed development plot (red line boundary).



Figure 2. Sheds in purple and numbered in red. Ponds in blue. Not to scale.

3.2 *Preliminary Ecological Appraisal*

3.2.1 Badgers

The habitat of the surrounding area is not suitable for badgers and there were no signs of any badger activity recorded within the site itself.

No records for badgers were identified within 2km of the site, on the National Biodiversity Network (NBN) data search.

3.2.2 Bats

The disused building set to be demolished has low potential for roosting bats. There are many loose tiles predominantly on the south facing roof but only a few of them are small enough to be suitable for roosting bats (see fig. 3 & 4)

There are five sheds on the site of which three were found to have low potential for roosting bats (see fig.2). Shed 1 (see fig. 5) has a slate roof which has a few cracks and crevices and is partially covered by dead foliage. Shed 4 (see fig. 6) has a plastic sheeting nailed tight against a wooden roof which has a few cracks and crevices which could potentially be used by roosting bats. Shed 5 (see fig.7) has a roof made of small sections of bitumen. There are several gaps where the sheets meet and it is partially covered with ivy.

There are several mature trees within the site but none had any cracks or features that would likely support roosting bats.



Figure 3. South facing aspect of disused house.



Figure 4. North facing aspect of disused house.



Figure 5. Shed 1.



Figure 6. Shed 4.



Figure 7. Shed 5.

3.2.3 Breeding Birds

There are five sheds on the site of which four were found to be potentially suitable for nesting birds. Shed 1 had supporting beams and dead ivy in the corners giving it a low suitability. Sheds two and three were both close to collapsing but had a large amount of ivy inside and outside creating a potential nesting habitat. Shed 3 was also found with an old bird nest in the corner (see fig. 8). Shed 4 had supporting beams and ivy covering a section of the roof providing potential nesting bird habitat.

Several of the trees have been overgrown with ivy making them high potential habitats for birds.



Figure 8. Shed 3.

3.2.4 Dormouse

The trees on site are isolated and lack connectivity to any larger woodlands or hedgerows and would therefore be highly unlikely to support a population of dormice.

No records for Dormice were found within 2km of the construction zone using the NBN database.

3.2.5 Great Crested Newts

There are two very small ponds within the Victoria Road site, both have become stagnant and completely overgrown with brash and ivy. It is very unlikely that anything could survive due to all the vegetation that has grown over the top. There is however suitable terrestrial habitat and therefore an HSI assessment will determine the suitability of both ponds.

An NBN data search shows no records for GCN within 2km of the construction zone.

Pond 1 – East pond

1. Geographic location – Location is Southwick, south east England. Suitability Index = **1**
2. Pond area – Approximately 3m by 2m = 6m^2. Suitability Index = **0.05**
3. Permanence – Pond is shallow and dries out most years. Suitability Index = **0.5**
4. Water Quality – Water is stagnant and of poor quality. Suitability Index = 0.33
5. Shade – 95% shade from trees and overgrown ivy. Suitability Index = 0.3
6. Waterfowl – No evidence of waterfowl impact. Suitability Index = **1**
7. Fish – No record of fish stocking. Suitability Index = **1**
8. Pond count – There is one other pond within 1km of this pond. 1/(π) = 0.32 ponds per km^2. Suitability Index = **0.4**
9. Terrestrial habitat – Semi-improved grassland provides good foraging opportunities and there are several hibernacula present for hibernating and shelter. Suitability Index = **1**
10. Macrophytes – Hard to see due to amount of ivy covering pond but approximately 20%. Suitability Index = **0.5**

Results = $(1x0.05x0.5x0.33x0.3x1x1x0.4x0.1x0.5)^{1/10}$ = **0.37**.
Pond 1 has a HSI score of **0.37** suggesting that the suitability of the pond for GCN is poor.

Pond 2 – West pond

1. Geographic location – Location is Southwick, south east England. Suitability Index = **1**
2. Pond area – Approximately 3m by 2m = 6m^2. Suitability Index = **0.05**
3. Permanence – Pond is shallow and dries out most years. Suitability Index = **0.5**
4. Water Quality – Water is stagnant and of poor quality. Suitability Index = 0.33

5. Shade – 95% shade from trees and overgrown ivy. Suitability Index = 0.3
6. Waterfowl – No evidence of waterfowl impact. Suitability Index = **1**
7. Fish – No record of fish stocking. Suitability Index = **1**
8. Pond count – There is one other pond within 1km of this pond. $1/(\pi) = 0.32$ ponds per km^2. Suitability Index = **0.4**
9. Terrestrial habitat – Semi-improved grassland provides good foraging opportunities and there are several hibernacula present for hibernating and shelter. Suitability Index = **1**
10. Macrophytes – Hard to see due to amount of ivy covering pond but approximately 20%. Suitability Index = **0.5**

Results = $(1x0.05x0.5x0.33x0.3x1x1x0.4x0.1x0.5)^{1/10}$ = **0.37**.
Pond 1 has a HSI score of **0.37** suggesting that the suitability of the pond for GCN is poor.



Figure 9. Pond 1.

3.2.6 Reptiles

The long, semi-improved grassland has high foraging potential and there are numerous piles of dead leaves and foliage, fallen trees covered in dead ivy that have high potential to be natural hibernacula for the three common species of reptile; grass snake (*Natrix natrix*), common lizard (*Zootoca vivipara*) and slow worm (*Anguis fragilis*).

A search on the NBN database found records for both slow worm (*Anguis fragilis*) and grass snake (*Natrix natrix)* within 2km of the construction zone.



Figure 10. Natural hibernacula amongst semi-improved grassland.



Figure 11. Hibernacula amongst semi-improved grassland.

3.2.7 Habitat

The construction zone is predominantly semi improved grassland. The dominant grass species being Timothy-grass (*Phleum pratense*). In the centre of the site is a small island of willowherb. Other species identified around the site were lesser celandine (*Ranunculus ficaria*), self-heal (*Prunella vulgaris*), cleaver (*Galium aparine*), wild garlic (*Allium ursinum*), cow parsley (*Anthriscus sylvestris*), common ivy (*Hedera helix*) and blue-bell (*Hyacinthoides*).

Along the southern boundary is an alder buckthorn hedgerow that envelopes the front of the

site and connects with wooden fencing that runs along the west and east boundaries. The northern boundary consists of a partial hedgerow covered in ivy and a wire fence.

There are several species of tree dotted around the site including wild cherry (*Prunus avium*), *sycamore* (*Acer pseudoplanatus*), wild pear (*Pyrus cordata*), Field Maple (*Acer campestre*), coppiced Hazel (*Corylus avellana*), and western redcedar (*Thuja plicata*).



Figure 12. Blue-bells (*Hyacinthoides*).

3.2.8 Constraints/Limitations

An initial site assessment such as this is only able to act like a 'snapshot' to record any flora or fauna that is present at the time of the survey. It is therefore possible that some species may not have been present during the survey, but may be evident at other times of the year. For this reason, habitats are assessed for their potential to support some species, even where no direct evidence (such as droppings) has been found.

4 DISCUSSION AND RECOMMENDATIONS

4.1 Preliminary Ecological Appraisal

Demolishing the disused building will mean that potential bat roosting habitat will be lost. It is assumed that some of the alder buckthorn hedgerow along the south boundary will need to be removed for access resulting in a loss of nesting bird habitat. Removal of any or all of the sheds will result in a loss of either bat or nesting bird habitat or both.

It is highly unlikely that the development will directly affect badgers, dormice or great crested newts, but further surveys are required to establish the potential for this development to impact upon bats and reptiles.

4.1.1 Badgers

This site has little suitability for badgers and no evidence of any badger activity was observed, therefore no mitigation is required for their protection.

4.1.2 Bats

The disused building to be demolished and sheds 1, 4 and 5 all have low potential for roosting bats. Some of the trees that are covered in ivy also have a low potential. Further surveys are recommended to identify if any bat species are using these potential roosting habitats.

It is recommended that the development incorporate bat sensitive lighting to minimise the impact upon this group of species. Guidance by the Bat Conservation Trust should be followed for this development and is included in Appendix 1.

4.1.3 Nesting birds

Sheds 1,2,3 and 4 all have medium to low potential for nesting birds. Several mature trees around the site have low potential, particularly those covered in ivy. The alder buckthorn hedgerow along the southern boundary has medium potential as nesting bird habitat. None of these features should be demolished, cut or cleared during the nesting bird season (1st March to 31st August), unless a hand search is first conducted by a suitably qualified ecologist.
To replace the lost habitat that the sheds and trees may have provided, it is suggested that a mixed native hedgerow be planted along the northwest boundary to increase the site's potential.

4.1.4 Reptiles

The majority of the site is suitable habitat that could potentially support populations of reptiles. In particular, the several piles of dead leaves and twigs that are dotted around the site must be deconstructed with a suitably qualified ecologist present. The semi-improved grassland is potentially good foraging habitat.

Prior to the commencement of any works to clear the site, a reptile presence/likely absence survey will be necessary in order to inform any potential reptile mitigation strategy and to avoid an offence being committed under The Wildlife and Countryside Act.

A reptile presence/likely absence survey consists of the placement of artificial refusia within areas of suitable habitat. After allowing a two week settling in period, seven survey visits are undertaken at any time between April and mid-October, when the air temperature is between 9 and 18 degrees centigrade and in the absence of wet or very windy weather.

Should this habitat be lost, new hibernacula should be constructed on the relocation site to enhance the area.

4.1.5 Dormice

This site has little suitability for dormice due to the lack of woodland and scattered trees. No evidence was found to suggest otherwise.

No further surveys or mitigation are recommended in this instance.

4.1.6 Great Crested Newts

The two ponds inside the construction zone had HSI assessments done and found that both ponds had poor suitability. They were stagnant and completely covered in ivy. It is unlikely that GCN or any other amphibian would use it in its current state.

An NBN data search showed there are no records for GCN within 2km of the site.

4.1.7 Habitat

There will be a loss of some semi improved grassland where the new building will be constructed and several features including the sheds and some trees will potentially be removed.
There are pockets of blue-bells (*Hyacinthoides*) around the site but it is unclear as to whether they are native or not. If they are later deemed to be native blue-bells then they will need to be translocated to another site.

Several enhancements are recommended to counter the loss of habitat and enhance the area where possible.

- A section of the garden should be set aside as a wildflower meadow which will enhance the diversity of vegetation and provide food for a variety of insects.
- A new mixed native hedgerow should be planted along the northwest boundary to increase the potential habitat for nesting birds and replace any lost nesting habitat from the demolished sheds.
- The ponds should either be cleared and cleaned or filled in depending on the wish

of the client.

- All the trees should remain where possible to provide shelter and foraging potential for bats and birds. If some trees need to be removed, plans should be made to replace them in other areas within the site.

APPENDIX 1

Bat Conservation Trust

Statement on the impact and design of artificial light on bats:

Artificial night lighting is disturbing to many bat species, including some of our rarest and most vulnerable bat species. Some fast-flying bats, such as common and soprano pipistrelle bats, are more tolerant of light and feed on the insect congregations around street lamps. However, this exposes the bats to predation. For the bats that are repelled by light such as horseshoe bats and brown long-eared bats, insect food becomes scarcer and more difficult to find and hunt.

We know that some bat species will not cross lines of light, such as street lighting. The light acts as a barrier, disrupting flight paths and fragmenting and restricting habitats. In addition, lighting close to roost access points disturb bats within a roost, delay emergence time and may result in the abandonment of a roost.

Smarter lighting, rather than less lighting, is key to mitigating the effects of light pollution. Light should only be erected where it is needed, illuminated during the time period it will be used, and at the levels that enhance visibility.

Mitigation must be guided by an understanding of the particular species that might be affected. For example, some bat species may be more sensitive than others.

Design recommendations for wildlife-friendly lighting include:

1. Do not "over" light. This is a major cause of obtrusive light and is a waste of energy. Use only the minimum amount of light needed for safety. There are published standards for most lighting tasks, adherence to which will help minimise upward reflected light.
2. Eliminate any bare bulbs and any light pointing upwards. The spread of light should be kept near to or below the horizontal.
3. Use narrow spectrum bulbs to lower the range of species affected by lighting.
4. Use light sources that emit minimal ultra-violet light. Insects are attracted to light sources that emit ultra-violet radiation.
5. Reduce light-spill so that light reaches only areas needing illumination. Shielding or cutting light can be achieved through the design of the luminaire or with accessories, such as hoods, cowls, louvers and shields to direct the light.
6. Reduce the height of lighting columns. Light at a low level reduces ecological impact. However, higher mounting heights allow lower main beam angles, which can assist in reducing glare.
7. For pedestrian lighting, use low level lighting that is directional as possible and below 3 lux at ground level.
8. Use embedded road lights to illuminate the roadway and light only high-risk stretches of roads, such as crossings and merges, allowing headlights to take up the slack at other times.
9. Limit the times that lights are on to provide some dark periods for wildlife.
10. Use lighting design computer programs and professional lighting designers to predict where light spill will occur.

Bat Conservation Trust
May 2011

APPENDIX 2

General

This section briefly describes the legal protection afforded to protected species. It is for information only and is not intended to be comprehensive or to replace specialised legal advice. It is not intended to replace the text of the legislation, but summarises the salient points.

Badger

Badger is protected in Britain under the Protection of Badgers Act 1992 and Schedule 6 of the Wildlife and Countryside Act 1981 (as amended).

The legislation affords protection to Badger and Badger setts, and makes it a criminal offence to:

- wilfully kill, injure, take, possess or cruelly ill-treat a Badger, or to attempt to do so;
- interfere with a sett by damaging or destroying it;
- to obstruct access to, or any entrance of, a Badger sett; or
- to disturb a Badger when it is occupying a sett.

Bats, Dormouse and Great Crested Newt

Dormouse (*Muscardinus avellanarius*), Great Crested Newt (*Triturus cristatus*), and all species of British bat (*Vespertilionidae* and *Rhinolophidae*) are listed on *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended), and receive full protection under *Section 9*. These species are also all listed as European Protected Species on *Schedule 2* of the *Conservation (Natural Habitats, etc.) Regulations 1994* which gives them full protection under *Regulation 39*. Protection was extended by the *Countryside and Rights of Way Act 2000* (the CRoW Act). Under the above legislation it is an offence to:

- kill, injure or take an individual;
- possess any part of an individual either alive or dead;
- intentionally or recklessly damage, destroy or obstruct access to any place or structure used by these species for shelter, rest, protection or breeding;
- intentionally or recklessly disturb these species whilst using any place of shelter or protection; or
- sell or attempt to sell any individual.

It is also an offence to set and use articles capable of catching, injuring or killing bats (for example a trap or poison), or knowingly cause or permit such an action. In the case of Dormouse and all species of British bat there is also protection under *Schedule 6* of *The Wildlife and Countryside Act 1981* (as amended) relating specifically to trapping and direct pursuit of these species.

Dormouse, Great Crested Newt and all species of British bat are included as priority species in the *UK Biodiversity Action Plan* and as species of principal importance for the conservation of biological diversity in England under *Section 74* of the *Countryside and Rights of Way (CRoW) Act 2000*.

Reptiles

Common Lizard (*Lacerta vivipara*), Grass Snake (*Natrix natrix*), Slow-worm (*Anguis fragilis*), and Adder (*Vipera berus*) are listed under *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended), in respect of *Section 9(5)* and part of *Section 9(1)*. This protection was extended by the *Countryside and Rights of Way (CRoW) Act 2000*. Under the legislation it is an offence to:

- intentionally or deliberately kill or injure any individual of these species; or
- sell or attempt to sell any part of these species either alive or dead.

Nesting Birds

All species of bird are protected under *Section 1* of the *Wildlife and Countryside Act 1981* (as amended). Protection was extended by the *Countryside and Rights of Way (CRoW) Act 2000*. Under the above legislation it is an offence to intentionally:

- kill, injure or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use or being built; or
- take or destroy an egg of any wild bird.

Certain species are listed on *Schedule 1* of the *Wildlife and Countryside Act 1981* (as amended) and receive protection under *Sections 1(4)* and *1(5)*. The protection was extended by the *Countryside and Rights of Way (CRoW) Act 2000*. There are special penalties where the offences listed above are committed for any *Schedule 1* species and it is also an offence to intentionally or recklessly:

- disturb any such bird when it is building its nest or while it is in or near a nest containing dependant young; or
- disturb the dependant young of any such bird.