TCP/11/16(534) – 18/00495/IPL – Residential development (in principle) on land 80 metres south west of Ardtigh, Caledonian Crescent, Gleneagles

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TCP/11/16(534) – 18/00495/IPL – Residential development (in principle) on land 80 metres south west of Ardtigh, Caledonian Crescent, Gleneagles

PAPERS SUBMITTED BY THE APPLICANT

NOTICE OF REVIEW

UNDER SECTION 43A(8) OF THE TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997 (AS AMENDED)IN RESPECT OF DECISIONS ON LOCAL DEVELOPMENTS

THE TOWN AND COUNTRY PLANNING (SCHEMES OF DELEGATION AND LOCAL REVIEW PROCEDURE) (SCOTLAND) REGULATIONS 2013

THE TOWN AND COUNTRY PLANNING (APPEALS) (SCOTLAND) REGULATIONS 2008

IMPORTANT: Please read and follow the guidance notes provided when completing this form. Failure to supply all the relevant information could invalidate your notice of review.

Use BLOCK CAPITALS if completing in manuscript

Applicant(s)		**Agent** *(if any)*	
Name	MRS LAETITIA BRADFIELD	Name	FOUIN + BELL ARCHITECTS
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Postcode	PH3 1NG.	Postcode	EH6 7EL
Contact Telephone 1		Contact Telephone 1	07767880480
Contact Telephone 2		Contact Telephone 2	031-478 7100
Fax No		Fax No	
E-mail*		E-mail*	david.bell@fouin-bell.com

Mark this box to confirm all contact should be through this representative: ☑

* Do you agree to correspondence regarding your review being sent by e-mail? Yes ☑ No ☐

Planning authority: PERTH & KINROSS

Planning authority's application reference number: 18/00495/IPL

Site address: BIRCHFIELD, CALEDONIA CRESCENT, GLENEAGLES, AUCHTERARDER

Description of proposed development: PLANNING IN PRINCIPLE FOR SUBDIVISON OF EXISTING RESIDENTIAL PLOT INTO TWO HOUSE PLOTS.

Date of application: 28.03.18 Date of decision (if any): 04.05.18.

Note. This notice must be served on the planning authority within three months of the date of the decision notice or from the date of expiry of the period allowed for determining the application.

Nature of application

1. Application for planning permission (including householder application) ☐
2. Application for planning permission in principle ☑
3. Further application (including development that has not yet commenced and where a time limit has been imposed; renewal of planning permission; and/or modification, variation or removal of a planning condition) ☐
4. Application for approval of matters specified in conditions ☐

Reasons for seeking review

1. Refusal of application by appointed officer ☑
2. Failure by appointed officer to determine the application within the period allowed for determination of the application ☐
3. Conditions imposed on consent by appointed officer ☐

Review procedure

The Local Review Body will decide on the procedure to be used to determine your review and may at any time during the review process require that further information or representations be made to enable them to determine the review. Further information may be required by one or a combination of procedures, such as: written submissions; the holding of one or more hearing sessions and/or inspecting the land which is the subject of the review case.

Please indicate what procedure (or combination of procedures) you think is most appropriate for the handling of your review. You may tick more than one box if you wish the review to be conducted by a combination of procedures.

1. Further written submissions ☐
2. One or more hearing sessions ☑
3. Site inspection ☐
4 Assessment of review documents only, with no further procedure ☐

If you have marked box 1 or 2, please explain here which of the matters (as set out in your statement below) you believe ought to be subject of that procedure, and why you consider further submissions or a hearing are necessary:

WE WOULD LIKE THE HEARING TO ENSURE THE INFORMATION IN OUR STATEMENT IS FULLY UNDERSTOOD AND TO ANSWER ANY QUESTIONS THE BOARD MAY HAVE.

Site inspection

In the event that the Local Review Body decides to inspect the review site, in your opinion:

	Yes	No
1. Can the site be viewed entirely from public land?	☐	☑
2 Is it possible for the site to be accessed safely, and without barriers to entry?	☑	☐

If there are reasons why you think the Local Review Body would be unable to undertake an unaccompanied site inspection, please explain here:

NONE.

Statement

You must state, in full, why you are seeking a review on your application. Your statement must set out all matters you consider require to be taken into account in determining your review. Note: you may not have a further opportunity to add to your statement of review at a later date. It is therefore essential that you submit with your notice of review, all necessary information and evidence that you rely on and wish the Local Review Body to consider as part of your review.

If the Local Review Body issues a notice requesting further information from any other person or body, you will have a period of 14 days in which to comment on any additional matter which has been raised by that person or body.

State here the reasons for your notice of review and all matters you wish to raise. If necessary, this can be continued or provided in full in a separate document. You may also submit additional documentation with this form.

SEE ATTACHED STATEMENT.

Have you raised any matters which were not before the appointed officer at the time the determination on your application was made? Yes ☐ No ☑

If yes, you should explain in the box below, why you are raising new material, why it was not raised with the appointed officer before your application was determined and why you consider it should now be considered in your review.

N/A.

List of documents and evidence

Please provide a list of all supporting documents, materials and evidence which you wish to submit with your notice of review and intend to rely on in support of your review.

SEE ATTACHED STATEMENT

Note. The planning authority will make a copy of the notice of review, the review documents and any notice of the procedure of the review available for inspection at an office of the planning authority until such time as the review is determined. It may also be available on the planning authority website.

Checklist

Please mark the appropriate boxes to confirm you have provided all supporting documents and evidence relevant to your review:

☑ Full completion of all parts of this form

☑ Statement of your reasons for requiring a review

☑ All documents, materials and evidence which you intend to rely on (e.g. plans and drawings or other documents) which are now the subject of this review.

Note. Where the review relates to a further application e.g. renewal of planning permission or modification, variation or removal of a planning condition or where it relates to an application for approval of matters specified in conditions, it is advisable to provide the application reference number, approved plans and decision notice from that earlier consent.

Declaration

I the applicant/agent [delete as appropriate] hereby serve notice on the planning authority to review the application as set out on this form and in the supporting documents.

Signed [redacted] Date 10.05.18

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10 May 2018

DWB/JVC/17.224

Perth & Kinross Council
Planning Department
Pullar House
35 Kinnoull Street
Perth
PH1 5GD

Dear Sirs,

PROPOSED SUBDIVISION OF EXISITNG HOUSE PLOT TO FORM 2 RESIDENTIAL PLOTS, PLANNING IN PRINCIPLE. REF: 18/00495/IPL

We are writing to you to request a review of the decision made by delegated powers for the above project. We were extremely disappointed that the application has been refused. Our client was simply seeking approval to the principle of sub-dividing their existing very large house plot into two plots, something which has previously been approved in the area. The site is entirely residential in use, private garden space with no tree preservation orders on the exiting trees. We feel that the officer has totally missed this in the formation of his report

This letter should be considered our written statement as part of the notice of review form.

We lodged an initial application for this site on 7 November 2017. Following registration of this application the case officer asked us to provide both a tree survey report and also an ecology report. In order to allow sufficient time for this work to be carried out, we agreed to withdraw this initial application and this was done on 16 January 2018.

Following completion of the two surveys, a new application was lodged on 28 March 2018. This was accompanied by the two survey reports.

Since then we have only received two items of correspondence from the case officer. The first sought clarification as to whether the existing house would remain or be demolished. We informed him that this was a matter of detail and would be covered under a future MSC application, where the detail of the actual house or houses would be clarified. We also stated that the worst-case scenario was that the existing house would indeed be demolished.

The other item of correspondence was an email response to an email we sent seeking an update on progress and asking if there was anything else required. In this response the case officer said *"I've not had the opportunity to get to this one yet. I'll need to take a further site inspection before reviewing the file and the associated consultation responses. I will try and deal with this one within the two-month timeframe"*. This response was dated 27 April 2018.

Against the background of this response and our earlier offer of additional information should this be required, we feel that to simply refuse the application some 5 working days later, without any further comment or discussion, is extremely disappointing.

Having reviewed the reasons given for refusal, namely clarification of which trees might require to be removed to allow access to the site and further clarification on the matter of ecology at the existing house, these could easily have been dealt with as a request for clarification following the case officer's site visit. This would have avoided this refusal and the subsequent need for this Review.

As an alternative, since this is simply an application for planning in principle, these items could have been noted as suspensive conditions on an approval, to allow the issues to be fully address as part of the detailed design work and prior to any work being done on site.

In response to the **Refusal Notice** we would like to respond to the points:

1 *The proposal is contrary to the Scottish Government's Policy on Woodland Removal, as well as policy NE2A and NE2B of the Perth and Kinross Local Development Plan 2014 as the extent of tree felling on site associated with the formation of the access has not been quantified, accordingly the acceptability of the removal cannot be assessed.*

2. *The proposal is contrary to Policy PM1A and PM1B of the Perth and Kinross Local Development Plan 2014 as it has not been demonstrated how the access arrangement to the site relates to the woodland resource on the site to ensure the development contributes positively to the surrounding built and natural environment and that natural features are retained and sensitively integrated into the proposal.*

3. *The proposal is contrary to Policy NE3 of the Perth and Kinross Local Development Plan 2014, as no survey information has been provided for the demolition of the dwellinghouse. Accordingly, the ecological impact of the development cannot be ascertained and it cannot be shown that any impact can be satisfactorily mitigated to ensure the protection of wildlife and wildlife habitats.*

The Refusal Notice refers to 5 policies in the Local Development Plan. These are as follows: -

Policy NE2: Forestry, Woodland and Trees Policy

NE2A The Council will support proposals which:

(a) deliver woodlands that meet local priorities as well as maximising benefits for the local economy, communities, sport and recreation and environment;

(b) protect existing trees, woodland, especially those with high natural, historic and cultural heritage value;

(c) seek to expand woodland cover in line with the guidance contained in the Perth and Kinross Forestry and Woodland Strategy;

(d) encourage the protection and good management of amenity trees, or groups of trees, important for amenity sport and recreation or because of their cultural or heritage interest;

(e) ensure the protection and good management of amenity trees, safeguard trees in Conservation Areas and trees on development sites in accordance with BS5837 "Trees in Relation to Construction";

(f) seek to secure establishment of new woodland in advance of major developments where practicable and secure new tree planting in line with the guidance contained in the Perth and Kinross Forestry and Woodland Strategy.

Policy NE2B Tree surveys, undertaken by a competent person, should accompany all applications for planning permission where there are existing trees on a site. The scope and nature of such surveys will reflect the known or potential amenity, nature conservation and/or recreational value of the trees in question and should be agreed in advance with the council. The Council will follow the principles of the Scottish Government Policy on Woodland Removal. In accordance with that document, there will be a presumption in favour of protecting woodland resources except where the works proposed involve the temporary removal of tree cover in a plantation, which is associated with clear felling and restocking. In exceptional cases where the loss of individual trees or woodland cover is unavoidable, the Council will require mitigation measures to be provided.

Note: The Council is preparing as Supplementary Guidance a Forestry and Woodland Strategy which will provide locational guidance and seeks to:

- promote multi-objective woodland management that delivers environmental, economic and social benefits;
- enhance the condition of existing woodland cover and expand them to develop habitat networks that complement the landscape character and other landuses;
- enhance landscapes through sensitive restructuring or removal of inappropriately sited and commercially unviable forest blocks;
- encourage sustainable forestry that contributes to adaptation and mitigation of a changing climate; enhance habitat connectivity both within and between river catchments using the most appropriate species and or land management options;
- conserves and expand riparian woodlands using appropriate species for the benefit of biodiversity and flood alleviation purposes;
- promote community participation in woodland planning and management;
- promote the value of trees and woodlands as a sustainable tourism asset.
- apply the guidance and advice in the Scottish Government's Control of Woodland Removal Policy when considering proposals for tree removal.
- To identify trees and woodlands in the Perth and Kinross area where nature conservation is of primary importance.

NE3 Biodiversity

Policy NE3: Biodiversity

The Council will seek to protect and enhance all wildlife and wildlife habitats, whether formally designated/protected or not, taking into account the ecosystems and natural processes in the area.

The Council will apply the principles of the Tayside Biodiversity Partnership Planning Manual and will take account of the Tayside Local Biodiversity Action Plan (LBAP) and relevant national and European legislation relating to protected species when making decisions about applications for development.

Proposals that have a detrimental impact on the ability to achieve the guidelines and actions identified in these documents will not be supported unless clear evidence can be provided that the ecological impacts can be satisfactorily mitigated. In particular developers may be required to:

(a) ensure a detailed survey is undertaken by a qualified specialist where one or more protected or priority species is known or suspected. Large developments that will have an impact on the environment may require an Environmental Impact Assessment;

(b) demonstrate all adverse effects on species and habitats have been avoided wherever possible. A Landscape Plan may be required to demonstrate the impact of the development and how good design and site layout can enhance the existing biodiversity;

(c) include mitigation measures and implementation strategies where adverse effects are unavoidable;

(d) enter into a Planning Obligation or similar to secure the preparation and implementation of a suitable long-term management plan or a site Biodiversity Action Plan, together with long-term monitoring.

European Protected Species Planning permission will not be granted for development that would, either individually or cumulatively, be likely to have an adverse effect upon European protected species (listed in Annex IV of the Habitats Directive (Directive 92/43/EEC)) unless the Council as Planning Authority is satisfied that:

(a) there is no satisfactory alternative, and

(b) the development is required for preserving public health or public safety or for other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.

In no circumstances can a development be approved which would be detrimental to the maintenance of the population of a European protected species at a favourable conservation status in its natural range.

Other protected species Planning permission will not be granted for development that would be likely to have an adverse effect on protected species unless it can be justified in accordance with the relevant protected species legislation (Wildlife and Countryside Act 1981 (as amended) and the Protection of Badgers Act (1992.)

Note: Supplementary Guidance on biodiversity has been prepared for householder and developer as a guide to incorporating biodiversity into development.

PM1A and PM1B Placemaking

Policy PM1: Placemaking Policy PM1A Development must contribute positively, to the quality of the surrounding built and natural environment. All development should be planned and designed with reference to climate change, mitigation and adaptation.

The design, density and siting of development should respect the character and amenity of the place, and should create and improve links within and, where practical, beyond the site. Proposals should also incorporate new landscape and planting works appropriate to the local context and the scale and nature of the development.

Policy PM1B All proposals should meet all the following placemaking criteria:

(a) Create a sense of identity by developing a coherent structure of streets, spaces, and buildings, safely accessible from its surroundings.

(b) Consider and respect site topography and any surrounding important landmarks, views or skylines, as well as the wider landscape character of the area.

(c) The design and density should complement its surroundings in terms of appearance, height, scale, massing, materials, finishes and colours.

(d) Respect an existing building line where appropriate, or establish one where none exists. Access, uses, and orientation of principal elevations should reinforce the street or open space.

(e) All buildings, streets, and spaces (including green spaces) should create safe, accessible, inclusive places for people, which are easily navigable, particularly on foot, bicycle and public transport.

(f) Buildings and spaces should be designed with future adaptability in mind wherever possible.

(g) Existing buildings, structures and natural features that contribute to the local townscape should be retained and sensitively integrated into proposals.

(h) Incorporate green infrastructure into new developments and make connections where possible to green networks.

In general term, we must remind the Council that this is an application for planning permission in principle. It appears that these policies all relate to more detailed information which we would expect to be submitted at the Matters Specified in Condition stage.

It is also fair to note that we have no problem with the intent or sentiment set out in these policies and as a residential Architect of over 35 years' experience, we would expect to have to demonstrate compliance with these policies, but not at this stage in the process. As noted above, we simply seek approval to the potential subdivision of the site into two plots.

Taking each of these policies we would further comment as follows: -

NE2A and NE2B Forestry, Woodland and Trees.

It is acknowledged that the existing trees on the site are well established and form an important screening tree belt to the site boundaries. It should however be borne in mind that these trees are in a private garden and they are not protected by either a tree preservation order nor conservation area controls. The policy quoted appears to primarily relate to areas of woodland, which this site in not. It is a private garden and should be treated as such. Never the less at no point has the applicant indicated removal of trees in order to accommodate the proposed subdivision of the site, other than potentially localised removal where the new access road will be constructed. Although the exact location of any tree removal would be part of a more detailed MSC submission, it is likely to involve the removal of a single tree, perhaps tree 635.

In addition, to the above it should also be noted that a full BS tree survey was provided as part of the revised application. In this report the existing trees are largely categorised as being "C" category. These are defined under the British Standard as being *"low quality, unremarkable trees of very limited merit."* As such the localised removal of one or two trees to create the access is not considered to be material. Further, and in accordance with best practice, we would propose planting a number of suitably specified new trees, as compensatory planting. This is considered good practice and is aimed at enhancing the existing trees and providing a more sustainable longevity to the tree belt.

NE3 Biodiversity

A full ecology survey was carried out on the site as part of the revised application and the survey report forms part of this application.

This looked at the current environment on the site and in particular the potential presence of Red Squirrels, Pine Martins, Badgers, Bats, and Amphibians and Reptiles. This survey clearly demonstrated that there were no signs of protected species on the site and that this would not preclude development on the site.

The case officer has however, intimated that the scope of this survey should also specifically have included the ecology of the house. This would only be required however if the house was to be demolished and as stated above this is by no means certain. It should also be noted that any bat study has a limited period of validity. Bat surveys which find evidence of bats are only valid for two survey seasons. It is therefore normal practice to carry out the survey work as close to the date of removal, to ensure the survey is current and accurate. This would then form the basis of informing the Council the current status at that time and what, if any, mitigation was required. As stated above we would expect the need for any building specific bat survey work to be a condition of a planning in principle approval, which would then be taken forward to MSC.

All of this is noted against the background of the conclusion the recent survey which noted *"no bat roosts were located within the trees and no field signs were located."*

PM1A and PM1B Placemaking

This policy is core to the design of housing development, but it relates to the detailed design of the new houses and not the principle of the sub division of the site. Again, we would not expect this to be raised at this stage, but to form a central part of any forthcoming MSC application. This could only really be satisfied once we have considered the building design, setting, townscape and all of the other issues noted in the policy. In short, we totally understand and accept the importance of this policy in ensuring good quality design, but it is not appropriate to refer to this policy at this stage or as a reason for refusal of this application.

In summary, it appears the case officer has identified a number of policies which are not relevant to this application and at this stage in the process. As Architects we totally accept the validity of these policies and the fact they are cornerstones in the design and development of residential development, particularly in a rural situation. They are not however reasons for refusal of this application and could have been resolved with further dialogue with ourselves or if necessary by condition.

We would ask the Board to reconsider the case officer's reasons for refusal which we do not think are valid or appropriate for this application, and in turn we would ask that you move to uphold this appeal and grant planning in principle for the sub division of this site.

Enclosed is the notice of review form duly signed and completed. We have requested to make a verbal representation to ensure the issues outlined in this written statement are clearly understood and to provide the Local Review Board to ask any questions they may have on this application.

We look forward to hearing from you in due course.

Yours faithfully,

David W Bell
Director
Fouin+Bell Architects Ltd

Enclosures

- Location Plan
- Existing site plan
- Proposed site boundaries
- Indicative tree survey plan
- Tree position plan
- Tree survey report as prepared by Adam Riedi of Blebo Tree, dated 19.02.18
- Ecology report as prepared by Andrea Hudspeth of Aquila Ecology dated March 2018.
- Local Development Plan policies

NE2A and NE2B	Forestry, Woodland and Trees.
NE3	Biodiversity
PM1A and PM1B	Placemaking

NOTES
All proprietary goods and materials are to be fixed in accordance with manufacturer's instructions, Codes of Practice and British Standards.
All dimensions to be verified by the Contractor on site.
Work to figured dimensions only.

REVISION / DESCRIPTION / DATE

SCALE 1:1250

0 100m

LOCATION PLAN NTS

fouin+bell architects

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mail@fouinbell.com www.fouinbell.com

CLIENT
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Auchterarder
PH3 1NG

PROJECT
Birchfield
Caledonian Crescent
Gleneagles
Perthshire

SCALE		DATE
1:1250		06.11.2017
DRAWN: BW	CHECKED: -	STAGE: -

DRAWING
Location Plan

PROJECT NUMBER	DRAWING NUMBER	REVISION
17-224	-	-

SCALE 1:500

0 50m

NORTH

Existing Site

fouin · bell architects

Mr & Mrs Bradfield
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Gleneagles Village,
Auchterarder
PH3 1NG

Birchfield
Caledonian Crescent
Gleneagles
Perthshire

1:500 | 06.11.2017
GW | - | -

Existing Site Plan

17-224 | - | -

SCALE 1:500

0 50m

NORTH

Proposed Site Boundaries

fouin+bell architects

Mr & Mrs Bradfield
Birchfield, Caledonian Crescent,
Gleneagles Village,
Auchterarder
PH3 1NG

Birchfield
Caledonian Crescent
Gleneagles
Perthshire

1:500 | 06.11.2017
GW

Proposed Site Boundaries

17-224 | - | -

SCALE 1:500

0 50m

NORTH

Indicative Tree Survey Plan

fouin + bell architects

Mr & Mrs Bradfield
Birchfield, Caledonian Crescent,
Gleneagles Village,
Auchterarder
PH3 1NG

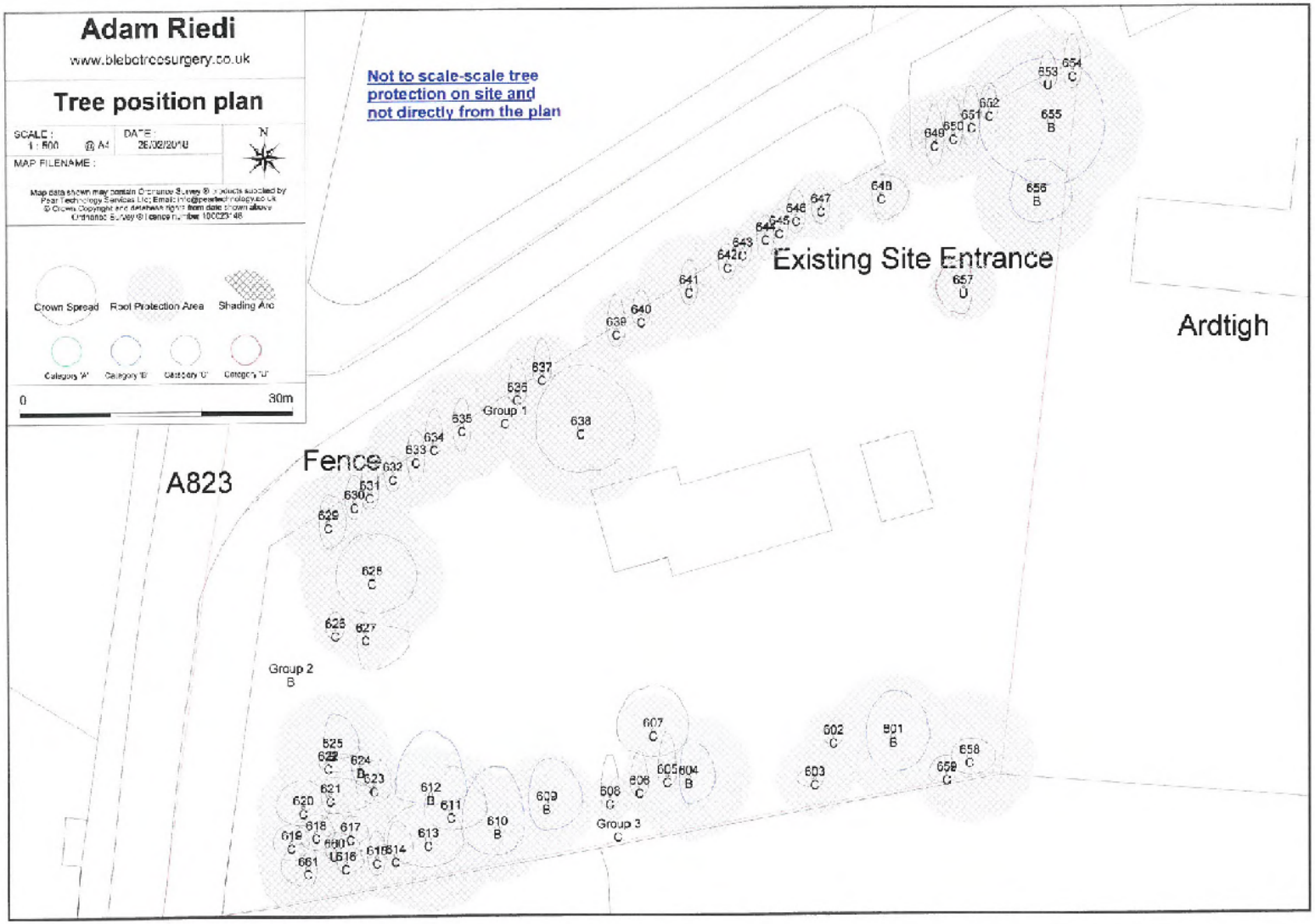
Birchfield
Caledonian Crescent
Gleneagles
Perthshire

1:500 06.11.2017

GW - -

Tree Survey Plan

17-224 - -


Adam Riedi
www.blebotreesurgery.co.uk
Tree position plan
SCALE : 1 : 500 @ A4
DATE : 26/02/2018
MAP FILENAME :
N
Crown Spread
Root Protection Area
Shading Arc
Category 'A'
Category 'B'
Category 'C'
Category 'U'
0
30m
Not to scale-scale tree protection on site and not directly from the plan
Existing Site Entrance
Ardtigh
A823
Fence
Group 1
Group 2
Group 3

BLEBO TREE
Surgery

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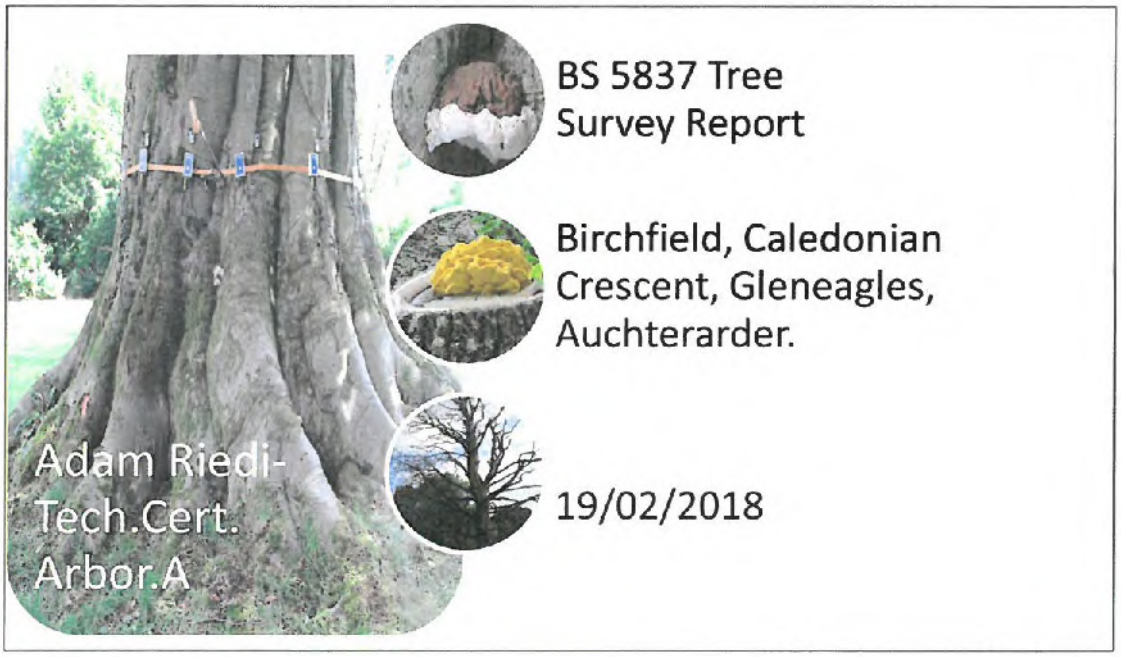

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Part One

General introduction

Client brief

Mr David Bell, architect, contacted us to carry out a pre-development tree survey, in accordance with BSI 5837: 2012, *"Trees in relation to design, demolition and construction-Recommendations"*.

The purpose of the survey is to establish the constraints and opportunities in integrating building structures and services into the existing tree population and is submitted to comply with LPA conditions.

Consequently, having had the tender accepted, Blebo Tree Surgery carried out an arboricultural survey and the findings are presented within this report.

The author and surveying team – qualifications and experience

Adam Riedi holds the Arboricultural Association Technicians Certificate, and also holds the LANTRA Professional Tree Inspection Certificate. He has been working in the industry since 1995 as both a contracting and consulting arborist. As part of a continuing professional development programme, he is currently working towards the Royal Forestry Society Professional Diploma in Arboriculture.

Mr Riedi was the Secretary of the Scottish Branch of the Arboricultural Association where his role included the organisation of seminars and events. In May 2010 he chaired a seminar given by world-leading tree expert Professor Claus Mattheck (Institute of Materials Research, Karlsruhe University, Germany). He has demonstrated modern ultra-sound decay detection techniques at a number of events and colleges. In 2014, he chaired a seminar on 'trees and the law' where the principal speakers were Dr David Lonsdale and Jeremy Barrell.

In 2011 he attended a visual tree assessment elite field training course held in Germany with Professor Claus Mattheck.

In 2012 Mr Riedi was asked to join an international research group researching trees, wood-decay fungi and ultrasound diagnostics with tree consultants and leading academics from the UK, Holland, Germany and Switzerland.

In 2015, Mr Riedi has advised the National Tree Collection of Scotland on tree management at several of their sites. He has also advised a number of Scottish Universities on integrating new buildings into the existing valuable and historic tree collections.

Aims of the arboricultural survey

- To collect arboricultural measurements and calculations pertaining to and required by the British Standards Institute (BSI) publication BSI 5837: 2012, *"Trees in relation to design, demolition and construction-Recommendations"* which will aid in quantifying the opportunities and constraints to proposed development.
- To provide an inventory of some of the principle priority tree species growing within the site.
- To provide an assessment of the hazards posed by the tree population and quantify the associated risk to create a defensible strategy for individual tree management.
- To prioritise and specify remedial work and, where necessary, more detailed investigation, to deal with potential hazards observed during individual tree assessment.
- To attempt to preserve the amenity value of the landscape, while managing the conflicts that may arise with respect to the client's duty of care.
- To create a tree constraints map by plotting tree position, tree category, tag number and crown spread on a licensed mapping tile. This will exported as a DXF and PDF file

The importance of trees in the built environment

Urban trees confer many benefits to urban spaces and those who use them.

There are many well documented structural benefits; storm water management, reduction in UV light, shading, cooling of the air and removal of harmful pollutants and particulates from the air around trees.

An attractive and healthy tree population can also add significant financial value to a property which is obviously of key importance to developers, home owners and estate agents.

As the photographs below illustrate, trees also soften and compliment urban architectural and landscape designs and give scale, form and beauty to our streets and public spaces.

Images reproduced with permission of Martin Kelly, Capita Symonds, London

A resilient and well maintained tree population is also a link with the natural world which might otherwise be lacking in city life. The diversity of forms, colour and seasonal variation has tangible benefits for the physical and mental wellbeing for those who use this "green infrastructure".

Trees and development-an introduction

The purpose of this process is to identify the nature and quality of existing tree cover and highlight the opportunities and constraints to development activity and the resultant permanent structures.

Good quality and sustainable tree cover is an essential component of green infrastructure and confers many benefits to society and can have considerable landscape, ecological and cultural values. Equally, the tree population should not pose unacceptable risk or nuisance to home owners and their homes. Design and implementation of new structures should be realistic about what is achievable, leave no significant impact on the condition of retained trees and create new structures and spaces with good "liveability".

The tree survey and tree constraints plan should therefore be regarded as a design tool for the project architect and engineers.

A project arboriculturalist who can advise, as well as specify and supervise works, is an essential part of any successful development team on sites where trees exist. A high level of communication between architects, contractors and an arboriculturalist should ensure a realistic and sustainable outcome for both living trees and new structures.

The tree survey should be carried out and considered prior to any detailed design work and should be submitted to the Local Planning Authority as part of the initial planning application. Trees on development sites should not be conditioned in the planning process as this undermines the role of trees in the process and is in breach of the statuary duty of the Local Planning Authority to consider tree protection and re-planting.

This tree survey document should allow the design team, with the assistance of the project arboriculturalist, to reach a number of objectives.

- Present a tree retention/removal plan
- Present a strategic soft and hard landscaping design, including planting.
- Present an arboricultural impact assessment that quantifies direct and indirect effects of the proposed design on the tree population.

Reserved matters and meeting planning conditions

- Present plans and methods for the alignment of utilities.
- Present a tree protection plan that shows the position of root protection areas, protective barriers, ground protection and work exclusion zones.
- Present a detailed arboricultural method statement that details the precise method of tree protection to be used.
- Present a detailed hard and soft landscape design.

Site introduction

Birchfield stands in mature grounds.

The early mature and mature tree population is comprised of trees that are both deciduous and coniferous.

There are many coniferous tree species and the design is dominated by a high density linear planting. Many of the exotic coniferous species have traditionally been associated with forestry in Scotland and perhaps much less as amenity plantings.

None the tree species are native to Scotland although common beech is naturalised. Others species have their provenance in continental Europe and North America or are of cultivated origin.

The species of those trees surveyed are *Abies grandis* (grand fir), *Acer pseudoplatanus* (Sycamore), *Chamaecyparis lawsonia* (Lawson Cypress), *Fagus sylvatica* (Beech), *Picea sitchensis* (Sitka spruce), *Pinus contorta subsp. Latifolia* (Lodgepole pine) and *X Cupressocyparis leylandii* (Leyland cypress and cultivars).

Part Two

Tree survey
and tree management recommendations

Visual tree assessment (VTA) - an introduction

A tree can be defined as a self-optimising bio-mechanical structure of lightweight design.

Its form is a consequence of available light, load adaptive growth and circumstances set within the context of its own genetic abilities and constraints.

A tree (when functioning normally) will respond to increased load, either caused by a specific structural defect or by a direct increase in wind and gravitational load, by preferentially depositing adaptive growth tissue in the affected areas. This model is described as the axiom of uniform stress (axiomatic, as it cannot be absolutely proven or disproven).

The VTA Level 1 (ground level, visual assessment only) system can, therefore, make reasonable inferences about the tree's internal condition on the basis of external appearance.

Assessment of vigour and vitality is an appraisal of biological function, which is the driver of all processes within the tree including adaptive growth and reaction to wounding and invasion by pathogens. Excessive biological function, such as long phototrophic branches seeking light, may disrupt this aspiration towards mechanical self-optimisation.

Biology and mechanics should be seen as both separate and intimately co-dependent processes. Examples of trees that seem to represent the duality of the bio-mechanical nature of trees may often be observed.

A tree may bear a crown of normal size, density and foliar condition and yet the main stem may be 90% hollow and extremely prone to failure.

Equally, a tree may be intact and structurally sound, free of decay and other major structural defects, but may have poor vitality and its biological function may be declining fast.

The tendency of trees to form weak structures (such as compression forks and other mechanically non-optimised structures) or their ability to resist pathogens and external loads is coded within the genetic make-up of every individual tree species. Despite this fact, trees must be viewed as unique individuals growing in unique circumstances.

The form and position of the tree is also assessed for intrinsic stability. Stem and crown morphology, oscillation under wind and gravitational load, exposure and altered exposure, and tree group dynamics are all considered, along with the likely shear strength and structure of the soil.

The condition of the tree can then be put into the context of a tree risk paradigm. The three components of risk are: the probability of foreseeable mechanical failure (condition), the magnitude of mechanical failure (size of the defective part) and the consequences of mechanical failure (people and property and other things perceived to be valuable).

Finally, the value of the tree (ecological, botanical, landscape) is weighed against the risk of harm and the cost and practicality of any remedial work.

Work specified to reduce unacceptable risk from individual trees to be within an acceptable threshold is given a priority rating based on time from the issue of the report. Remedial work may take the form of complete tree removal, varying degrees of pruning, cable bracing or reduction of the target rating.

For trees that will be retained a re-inspection date is also stated. Trees are dynamic organisms living in a highly dynamic environment, so a regular re-inspection cycle is required. It is also worth remembering that tree condition may improve as well as deteriorate. Good adaptive growth, compartmentalisation of wood decay fungi and other defensive and adaptive strategies may overcome an episodic lapse of condition. Environmental factors and pathogens may become more or less severe and frequent.

Further inspection (VTA Level 2) is recommended in the initial Level 1 survey when it is not possible to evaluate the presence, extent or severity of a defect visually and from ground level. Examples of further inspection include such measures as the aerial inspection of a suspected defect, decay mapping using diagnostic tools or the sampling of affected foliage for laboratory analyses.

Further inspection would not be reasonably employed with low value and low risk trees, or as a substitute for a lack of competency with VTA 1.

The duty of care of the tree owner is not reasonably discharged unless further inspection is carried out within the stated time scales.

Good further inspection should quantify the extent and severity of any defect and help to avoid unnecessary tree removal or pruning, as well as negligent tree management through inaction.

Methodology

The VTA (visual tree assessment) system was used to evaluate the physiological and structural condition of each tree.

The VTA system was used together with the QTRA (quantified tree risk assessment) system for recording target values. On occasion, the QTRA system was used to calculate a precise risk of harm for a particular tree. Elements of the tree STATICS system were also used.

A nylon *Thor* hammer and manual probe were employed for simple decay detection.

Tree heights were measured using the *trupulse* laser hypsometer system.

The tree constraints plan was made using a geo-referenced topographical mapping tile of the area and a mobile mapping GPS unit, which together with a *trupulse* laser collected the on-site data. The resulting plan shows the tree position, tag number, tree quality, crown spread and root protection area. The plan is made available in DXF and PDF format.

The trees were tagged with an aluminum tag with a unique reference number. The tree tag numbers run from 601 to 661 consecutively.

The survey consists of 61 trees in total (three small groups of trees were not tagged but are describe in the report as no group 1, 2 and 3).

It is understood the report is in support of a planning application. Therefore, measurements and calculations pertaining to and required by the British Standards Institute (BSI) publication BSI 5837: 2012, *"Trees in relation to design, demolition and construction-Recommendations"* have been taken.

No direct comment is made within this report upon the suitability of any development proposals and the likely impact of proposed development on the tree population of this site. This is because the pre-development tree survey is essentially an aid to design that highlights the opportunities for and constraints upon development posed by the tree population.

The field work for the current survey was carried out between the 19th and 27th February 2018 under reasonable working conditions.

Tree selection method

This includes all the trees within the original topographical survey.

OBSERVATIONS

Introduction

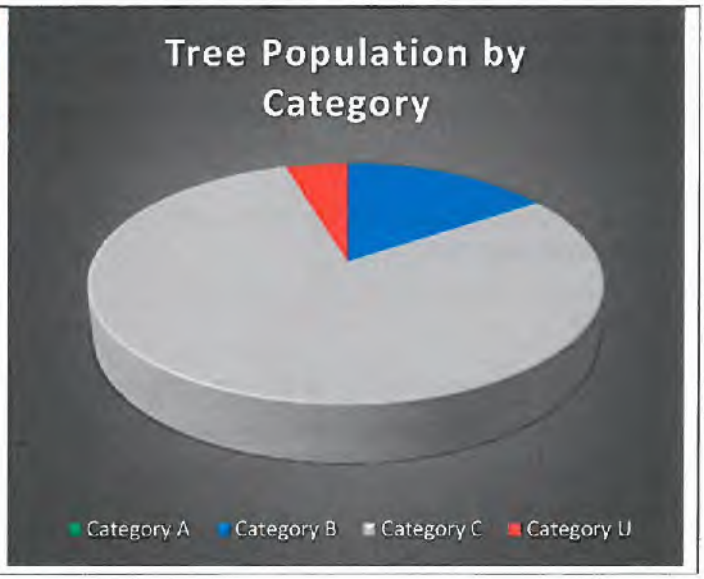
No direct comment is made within this report upon the suitability of any development proposals and the likely impact of proposed development on the tree population of this site. This is because the pre-development tree survey is essentially an aid to design that highlights the opportunities for and constraints upon development posed by the tree population.

61 trees were surveyed as individual (and three small groups of trees were surveyed as a distinct groups).

The majority of the trees are in moderate structural condition normal health.

The tree quality category of these trees has been summarised in the table below. Please see Appendix 4 for further explanation of the tree quality category assessment process.

Category A trees	Category B trees	Category C trees	Category U trees
0	**10**	**51**	3



The survey was carried out under reasonable working conditions with reasonable visibility.

The proposed site is approximately 0.5 hectares in size.

The tree population is comprised of broad-leaved and coniferous trees that are both native and exotic in origin. The planting date of the trees are not known by the author but it is probable that the majority of the trees were planted in the early to mid-20th century.

The species of those trees surveyed are *Abies grandis* (grand fir), *Acer pseudoplatanus* (Sycamore), *Chamaecyparis lawsonia* (Lawson Cypress), *Fagus sylvatica* (Beech), *Picea sitchensis* (Sitka spruce), *Pinus contorta subsp. Latifolia* (Lodgepole pine) and *X Cupressocyparis leylandii* (Leyland cypress and cultivars).

The planting is linear in nature with the position of many of the trees are running perpendicular to the boundaries. Overall, the tree population has been established at a relatively high density.

The conifers (*Abies grandis* (grand fir), *Chamaecyparis lawsonia* (Lawson Cypress), *Picea sitchensis* (Sitka spruce), *Pinus contorta subsp. Latifolia* (Lodgepole pine) and *X Cupressocyparis leylandii* (Leyland cypress and cultivars) dominates the tree population. With the exception of Leyland cypress (of cultivated origin) the conifers originate in north west America and were all brought to Scotland in the 19th century for the burgeoning forestry industry. All of these species can make splendid specimens in parkland and pinetum but their ultimate suitability as garden trees is questionable. The grand fir and Sitka spruce in the garden are capable of doubling their current height. I have worked on Sitka spruce in Scotland that exceed 50 metres and grand fir that have exceeded 60 metres (at Scone Palace and Ardkinglas respectively). These species have been planted at Birchfield as a tight forestry spacing which has created some individuals that are becoming drawn and etiolated in form and developing group co-dependency. A regime of thinning will need to be discussed and implemented in the next 5 years. The Lawson cypress has been established effectively as a hedge as I becoming very large. This species often produces weak forks with limited adaptive growth and may often require crown reduction pruning to reduce wind and gravity loads.

A mid-term plan (over and above routine tree safety surveys) for all the trees in the garden for thinning, pruning and replanting will need to be discussed and implemented in the next 5 years.

The area has both areas of tree cover and open ground. There is moderate to exposure to the prevailing south westerly wind.

Targets

Two principle target rating zones currently exist at the site. The interior of the garden, the driveway and the public and private roads are zoned as QTRA 3. This is based upon the regularity of pedestrian and vehicular traffic. The individual buildings are zoned as QTRA 1. This is based upon property value (replacement or repair).

Felling

Three trees are recommended for complete felling at this stage.

Pruning

Thirteen trees are recommended for pruning.

Further inspection

One tree is recommended for further inspection. The three group of trees should be subject to a tree safety and condition survey in the next six months.

Re-inspection

It is recommended that trees should have an initial re-inspection cycle of 12 months. Should the target rating increase the risk from the tree population should be immediately reviewed by a competent arboriculturalist.

RECOMMENDATIONS

Recommendations in relation to proposed construction

- The root protection area for every tree surveyed has been recorded and shown on the Tree Constraints Plan (TCP). The TCP is a layout design tool indicating the minimum around a tree deemed to contain sufficed roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as priority.

Restrictions within tree protection areas

Inside the exclusion area of the fencing, the following should apply:

- No mechanical excavation whatsoever
- No excavation by any other means without arboricultural site supervision
- No hand digging without a written method statement having first been approved by the project arboriculturist
- No alteration of levels for any purpose (except the removal of grass sward using hand tools)
- No storage of plant or materials
- No vehicular access
- No storage or handling of any chemical including cement washings

Further precautionary measures are necessary adjacent to trees:

- No substances harmful to tree health, including fuels, oil, bitumen, cement (including cement washings), builders sand concrete mixing and other chemicals should be used or stored within the root protection area.
- No fire shall be lit that allows flames within 5 metres of tree foliage or within the root protection area.

General tree protection recommendations

The following considerations should be planned for:

- Plant and material delivery
- Landscaping
- Construction works
- Utility installation
- Demolition
- Soil stripping

Once constructed in situ, no tree protection measures will be removed or changed in any way without prior recommendation by the project arboriculturist and approval of the local planning authority.

Type 1 Tree protection barriers: This is suitable for areas of high intensity development, and should consist of interlocking weld-mesh panels, well braced to resist impacts by attachment to a scaffold framework that is set firmly into the ground.

Should an alternative method of barrier construction be requested, consultation with the project arboriculturist will be obtained to confirm the suitability of the revised design prior to informing the local planning authority and obtaining their consent.

Once the exclusion zone has been protected by barriers and/or ground protection, construction work may begin. All weather notices may be displayed on the barriers.

Ground protection

All ground protection installed must be capable of supporting the expected loads as well as protecting against compaction, rutting or damage to the soil.

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Avoiding damage to stems and branches

Care shall be taken when planning site operations near to retained trees to ensure that wide or tall loads, or plant with booms, jibs and counterweights, operate without coming into contact with retained trees. If any such contact were to take place, serious injury to trees is risked which might make their safe retention impossible.

Therefore, any transit or traverse of plant near to trees shall be conducted under the supervision of a banksman, in order to ensure that the correct clearance from trees is at all times maintained. In some circumstances, it may be possible to achieve this without pruning work known as 'access facilitation pruning'

Access facilitation pruning shall be kept to the absolute minimum necessary to allow development and shall be carried out in strict accordance with the guidance below (Tree Surgery). Under no circumstances shall construction personnel undertake any tree pruning operations.

Tree surgery

Given that tree surgery is required, it will be carried out in accordance with BS 3998:2010 *Recommendations for Tree Work*, industry best practice and in line with any works already agreed with the Council.

Proof of experience and insurance provision will be required. All work shall be undertaken at the appropriate time and with the consent and approval of the Site Agent.

If bats or other protected flora or fauna, are discovered during tree work, advice should be obtained from Scottish Natural Heritage or other qualified persons and recommendations adhered to.

The contractor shall seek consent from the arboricultural consultant for the chosen Tree Surgeon to be used. All work shall be undertaken at the appropriate time and with the consent of the Site Agent who shall approve a programme of work.

The stumps of any trees removed from within the Construction Exclusion Zone or the RPAs of retained trees will be either; cut flush to ground level and treated with eco-plug translocated herbicide or ground using a stump grinder. They will not be winched out.

All operations shall be carefully carried out to ensure that damage to any trees being treated or neighbouring trees is avoided. Under no circumstance should retained trees be used for anchorage or winching purposes.

All arisings should be removed from site (unless other arrangements have been made) and the site left clean and tidy.

New planting and mitigation

Replacement tree planting should be implemented to off-set the impact of any tree losses during development. The decision of what species to plant should be left until the impact of the development on the local hydrology and topography is apparent.

Specifications for tree work

This section defines in more detail the specifications for the suggested courses of action advised within the tree schedule. All tree work should be carried out by qualified and insured arborists to the standards defined in the following document; British Standard Institution 3998: 2010, "Recommendations for tree work".

Pruning

Dead wood management: removal, or shortening, of all dead branches from the crown of the tree.

Crown thinning: a reduction of the general density of the crown by no more than 30% of total live crown volume. Crossing, weak, diseased, dead and duplicated branches should be removed.

Crown reduction: reduction of the height and/or lateral width of the crown of the tree. This can be an effective method of reducing the lever arm forces (wind and gravitational load) on the tree or individual limbs, thus compensating for bio-mechanical defects by improving the ratio of strength to mass.

Extreme crown reduction: this involves removal of a large proportion, or all, of the primary branches, and possibly, also the reduction in height of the principle stem. This can be appropriate on trees where structural defects are so severe that conventional pruning systems cannot hope to re-instate the ratio of strength to mass within tolerable limits. The physiological response of any individual tree is uncertain, and the success of the operation should be assessed annually. Some species and individuals may produce adventitious growth and continue to function as compact bio-mechanical structures. Other trees may not respond well and become standing dead wood. Any tree parts, or whole trees, that move to senescence have high ecological and habitat values but may constitute a hazard depending on their proximity to targets, so ongoing monitoring is essential. Coronet cuts can also be used to encourage niche habitats and adventitious growth. For more information see; **Read, H. (2000)** Veteran Trees: A guide to good management, English Nature, **BS** 3998: 2010, ***Recommendations for tree work*, Fay, N.** (2003) Coronet Cutting and Retrenchment Pruning-Natural fracture pruning techniques(www.treeworks.co.uk/press_releases_publications.php).

Fell or section fell: the removal of trees with significant structural defects or those trees that are in severe conflict with their context.

Further Inspection: this aims to clarify the presence, extent and severity of potential defects highlighted in the Level 1 survey. Inspection can vary from a simple aerial visual assessment by Arborists of potential defects that are hard to assess from ground level, through to decay mapping using Ultrasound Tomography.

Target reduction method: Valuable old trees with structural defects can sometimes be defensibly retained if the target rating is reduced. Target reduction measures may include fencing off trees, re-directing paths and use of barrier planting.

Cable bracing: The artificial restraint of branches and stems to prevent mechanical failure. Bracing can be specified as dynamic or static depending on the severity of the defect.

General tree management proposal

1. It is strongly advised that arboricultural recommendations made within this report are carried out within the appointed time scales. It is advised that a formal budget and schedule of work are created by the client. That can be done after consultation between the client, the arboricultural consultant and contractors.

2. That the legal status of the trees, the laws and guidelines covering tree management be respected and adhered to. Of particular importance are:

    - Trees in conservation areas: these are protected by 'Town and Country Planning (Scotland) Act 1997'. Applications to carry out tree work should be made to the local planning authority.
    - Trees and the public road: 'Roads (Scotland) Act 1994' and amendments.
    - Protected flora and fauna: 'Nature Conservation Act 2004' (Scotland).
    - Felling licenses. Forestry Commission Scotland.

3. All arboricultural remedial work should be carried out to the standards defined in British Standard 3998 'Recommendations for tree work': 2010, and be carried out by professional arborists with the relevant qualifications (level 3 or above) and public liability and employers insurance for arboriculture.

4. If any non-arboricultural work (e.g. path creation, maintenance) is planned, all work should adhere to the guidelines defined in British Standard 5837: 'Trees in relations to construction – recommendations 2012' in order to protect the trees from unnecessary damage. Any activity likely to affect the trees, above or below ground, within or out-with the area should be monitored and recorded. Work carried out by statutory undertaker's out-with the site but potentially within the rooting zone of the trees, should be recorded and the implications for tree health and stability assessed.

5. That a qualified Ecologist be consulted prior to any tree work commencing, in order to advise on the likely impact on any protected flora and fauna.

6. In the event of site usage altering, the risk from trees should be re-evaluated in altered areas.

7. During periods of extreme weather, especially high winds (i.e. over 35 mph), it would be advisable to warn site users, including residents and employees, of the potential risks given the natural failure rate of trees under such conditions and close access to areas in close proximity to the tree population. A mechanism for measuring wind speed and closing areas with physical barriers should be formalised.

8. Should paths be upgraded, or new features like benches be installed, thought should be given to not only on not impacting on tree condition during construction of structures, but also to not unnecessarily raise the target rating of trees through a lack of strategic planning. Careful consideration should be given to the positioning of benches etc.

Limitations

1- The observations and recommendations contained within this document are valid for 6 months from the date of this report (19th February 2017). Given the dynamic and complex nature of living trees it is advised that regular tree inspections are maintained as stated in the tree schedule and after extreme weather.

2- This survey is based upon observations of the site as it currently exists.

3- Tree condition should be re-evaluated after extremes of weather that may affect the trees' health or stability. Alteration to the site and the context in which these trees grow will make it necessary to re-assess tree condition.

4- Only the trees with individual tree numbers fall within the scope of this survey.

5- The survey was carried out using the Visual Tree Assessment Level 1 (VTA) technique as defined by C. Mattheck (2003; 2007).

6- The survey was carried out from ground level and from within the site boundaries.

7- No soil, pathogen or tree samples were taken. No drilling or other decay detection devices were employed.

8- No detailed assessment of the rooting zone and below ground tree physiology was made.

10- No neighbouring property was entered in order to survey the trees. All VTA observations were made from within the site. Some measurements were estimated due to limitations imposed by the terrain.

11- Trees are dynamic and complex organisms and are subject to change. No long-term guarantee can be given as to the absolute safety of any tree.

12- Target ratings and zones were established on the basis of the site at it was observed. If the client, on the basis of frequent site visits, are able to observe that the target rating is higher than is stated then the hazard posed by the tree population should be upgraded and management recommendations reviewed.

PART THREE

Tree schedule
and tree constraints plan

Key to tree schedule

Full term	Explanation
Tree Tag Number	Number on plastic tag attached to the tree at approximately 2 meters above ground level.
Tree Species	Botanical Name (Common English Name). Where contemporary botanical opinion about taxonomy and nomenclature is at variance then the species synonym is also stated as *(syn.)*
Age Class	Young (up to the first 1/3rd of expected height). Early-mature (1/3rd to 2/3rds of expected height), Mature (close to expected ultimate height with rapid girth expansion), Late-mature (at ultimate height and with slow girth expansion), Veteran (a valued tree surviving beyond the typical age for the species).
Vigour	Physiological condition: Normal, Fair, or Poor
Summary of tree condition	**Good**: Full healthy canopy; free from major cavities, wounds, pests or diseases. A tree of excellent shape and form. **Moderate:** Slightly reduced leaf cover or isolated sparse leaf cover, minor deadwood or isolated major deadwood; early stages of decay or disease; stable structural defects. A tree of reasonable shape and form. **Poor:** Overall sparse foliage; extensive deadwood; well-established decay organisms; cavities and or large wounds; structural defects prone to failure. A tree of distorted and imbalanced shape and form. **Very Poor:** Large areas of dead crown; advanced decay; structurally unsafe. A tree of very poor shape and form. **Dead:** Dead tree.
Notes on the structural and physiological condition and its growing context.	Observations made using the level 1 Visual Tree Assessment system.

Full term	Explanation
Preliminary Management Recommendations	Specified works that are recommended for the reduction of the identified hazard(s), or for further investigation. NWR = No Work Required PRUNING EXTREME PRUNING FELLING FURTHER INSPECTION CABLE BRACING
Tree Quality Categorization as per BS 5838:2012	A,B,C OR U Category

Tag Number	Species	Maturity	Vigour	Condition	Recommendations	Category
601	Picea sitchensis (Sitka spruce)	Mature	Normal	MODERATE Reasonable intact trunk supporting largely defect free crown.	NWR	B
602	Abies grandis (grand fir)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
603	Abies grandis (grand fir)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
604	Picea sitchensis (Sitka spruce)	Mature	Normal	MODERATE Reasonable intact trunk supporting largely defect free crown.	NWR	B
605	Picea sitchensis (Sitka spruce)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
606	Picea sitchensis (Sitka spruce)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
607	X Cupressocyparis leylandii cv (variegated Leyland cypress)	Early mature	Normal	MODERATE Reasonable intact trunk with 5 degrees lean to north west supporting largely defect free crown.	NWR	C
608	Picea sitchensis (Sitka spruce)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
609	Picea sitchensis (Sitka spruce)	Mature	Normal	MODERATE Reasonable intact trunk with 5 degrees lean to north west supporting largely defect free crown.	NWR	B
610	Acer pseudoplatanus (sycamore)	Mature	Normal	MODERATE Reasonable intact trunk. Tensile union supporting upright crown.	NWR	B
611	Picea sitchensis (Sitka spruce)	Mature	Normal	MODERATE Reasonable intact trunk supporting largely defect free crown.	NWR	C
612	Fagus sylvatica (common beech)	Early mature	Normal	MODERATE POOR Bowing supressed form. Weak fork in upper stem. Asymmetric crown.	PRUNING Reduce crown height by approximately 2.5 metres within 6 months	B
613	Picea sitchensis (Sitka spruce)	Mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
614	Pinus contorta subsp. Latifolia (Lodgepole pine)	Early mature	Normal	MODERATE Etiolated form and distorted form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
615	Pinus contorta subsp. Latifolia (Lodgepole pine)	Early mature	Normal	MODERATE Etiolated form and distorted form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
616	Abies grandis (grand fir)	Mature	Normal	MODERATE POOR Etiolated form and distorted form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
617	Picea sitchensis (Sitka spruce)	Mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C

618	Picea sitchensis (Sitka spruce)	Mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
619	Picea sitchensis (Sitka spruce)	Mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
620	Picea sitchensis (Sitka spruce)	Mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
621	Picea sitchensis (Sitka spruce)	Mature	Normal	MODERATE Lower trunk obscured by debris.	FURTHER INSPECTION Remove basal debris and visually re-inspect within 6 months	C
622	Picea sitchensis (Sitka spruce)	Mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
623	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
624	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	B
625	Abies grandis (grand fir)	Mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	B
626	X Cupressocyparis leylandii cv. (variegated Leyland cypress)	Young	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
627	X Cupressocyparis leylandii cv. (variegated Leyland cypress)	Early mature	Normal	MODERATE Reasonable intact trunk. Failed leader. Asymmetric crown.	NWR	C
628	Picea sitchensis (Sitka spruce)	Mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
629	X Cupressocyparis leylandii	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
630	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
631	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
632	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE POOR Compression forks with limited adaptive growth with upright stems.	PRUNING Reduce crown height by approximately 3 metres within 6 months	C

633	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
634	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
635	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE POOR Compression forks with limited adaptive growth with upright stems.	PRUNING Reduce crown height by approximately 4 metres within 6 months	C
636	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE POOR Compression forks with limited adaptive growth with upright stems. Historic branch failure.	PRUNING Reduce crown height by approximately 3 metres within 6 months	C
637	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE POOR Compression forks with limited adaptive growth with upright stems	PRUNING Reduce crown height by approximately 3 metres within 6 months	C
638	Fagus sylvatica (common beech)	Mature	Normal	MODERATE POOR Reasonable intact trunk. Co-dominant compression fork at 1.3-2 metres from ground level with limited adaptive growth. Historic crown reduction pruning.	NWR	C
639	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
640	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
641	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE POOR Compression forks with limited adaptive growth with upright stems.	PRUNING Reduce crown height by approximately 4 metres within 6 months	C
642	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
643	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
644	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
645	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C
645	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown.	NWR	C

647	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE POOR Compression forks with limited adaptive growth with upright stems.	PRUNING Reduce crown height by approximately 3 metres within 6 months	C
648	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown. Phone line through crown.	PRUNING Prune primary and secondary branches to allow at least 60 cm clearance from phone line within 6 months	C
649	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown. Phone line through crown.	PRUNING Prune primary and secondary branches to allow at least 60 cm clearance from phone line within 6 months	C
650	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown. Phone line through crown.	PRUNING Prune primary and secondary branches to allow at least 60 cm clearance from phone line within 6 months	C
651	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE POOR Compression forks with limited adaptive growth with upright stems.	PRUNING Reduce crown height by approximately 3 metres within 6 months	C
652	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown. Phone line through crown.	NWR	C
653	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Phone line in conflict with trunk.	FELL Fell to ground level within 6 months	U
654	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown. Phone line through crown.	NWR	C
655	Acer pseudoplatanus (sycamore)	Mature	Normal	MODERATE POOR Reasonable intact trunk. Co-dominant compression fork at 0.5 metres from ground level with limited adaptive growth. Southern stem has good tensile unions. Asymmetric crown.	PRUNING Reduce crown height of northern stem only by approximately 3 metres within 6 months	B
656	Abies grandis (grand fir)	Mature	Normal	MODERATE Reasonable intact trunk supporting largely defect free crown. Given future projected size may not be entirely suitable for future long term retention.	NWR	B
657	Abies grandis (grand fir)	Early mature	Normal	POOR Etiolated form and very exposed following loss of neighbouring trees. Poor height to diameter ratio.	FELL Fell to ground level within 6 months	U
658	Chamaecyparis lawsoniana (Lawson cypress)	Mature	Normal	MODERATE Three upright stems arising from approximately 1 metre from ground level. Upright form.	PRUNING Reduce crown height by approximately 3 metres within 6 months	C
659	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown. Phone line through crown.	NWR	C
660	Abies grandis (grand fir)	Mature	Normal	POOR Failed compression fork at 2 metres. Remaining stem weak and exposed.	FELL Fell to ground level within 6 months	U

661	Picea sitchensis (Sitka spruce)	Mature	Normal	MODERATE Etiolated form. Reasonable intact trunk supporting largely defect free crown. Phone line through crown.	NWR	C
Group 1	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Linear planting established at tight spacing with resulting etiolated form with some compression forks.	Survey as individuals for safety and future management within 6 months	C
Group 2	Mixed species	Mature	Normal	MODERATE One isolated early mature pedunculate oak and one goat willow. The remainder are mixed conifer species at tight spacing and etiolated form.	Survey as individuals for safety and future management within 6 months	B
Group 3	Chamaecyparis lawsoniana (Lawson cypress)	Early mature	Normal	MODERATE Linear planting established at tight spacing with resulting etiolated form with some compression forks.	Survey as individuals for safety and future management within 6 months	C

DIMENSIONS

BS 5837: 2005 – TABLE 1 ROOT PROTECTION AREAS (RPA) AND ROOT PROTECTION RADIUS (RPR)

Key to dimensions table

Full term	Explanation
Tree Tag Number	Number on plastic tag attached to the tree at approximately 2 meters above ground level.
Height	Measured height in metres from ground level to growing tips.
Crown clearance	The distance from ground level in metres to the first significant branch
Diameter of stem	Recorded in millimetres at 1.5m height on the stem in accordance with Annex C of BS 5837:2012. In trees with multiple trunks the first 5 trunks are recorded. Trees with more trunks than 5 have the average diameter recorded.
Crown spread	The spread of the crown on all four cardinal points (north, east, south and west) measured in metres.
Root Protection Radius	A layout design tool indicating the minimum around a tree deemed to contain sufficed roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as priority. Expressed in metres.
Root Protection Area	As above but expressed as square metres (metres$^{2)}$.

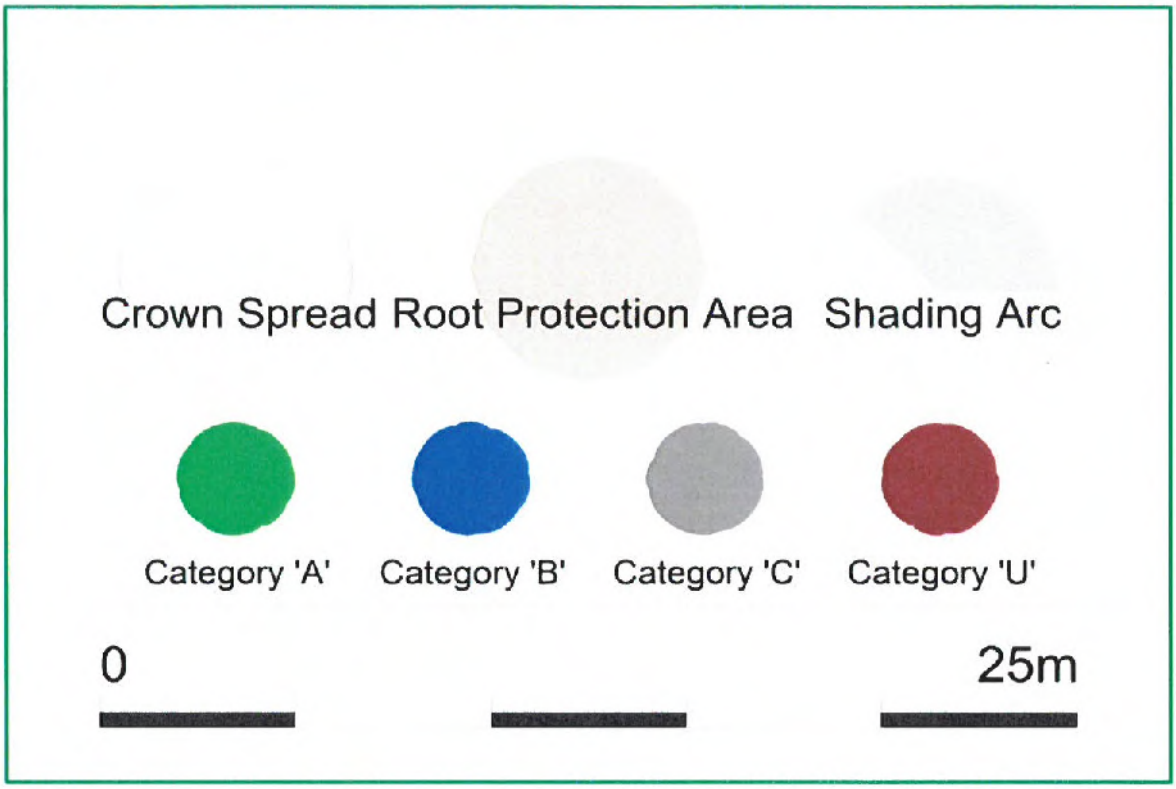
Please note that for the tree groups an estimated average is given for dimensions and root protection values.

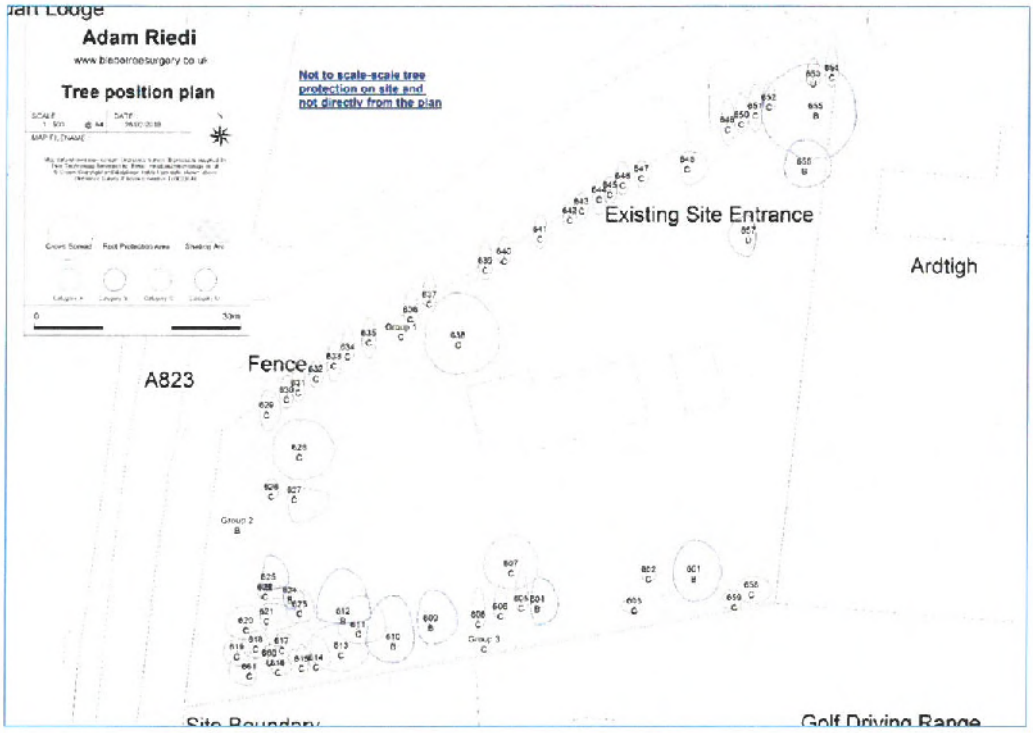
Tree ID	Height (m)	Crown clearance	Number of Stems	Stem 1 (mm)	Stem 2 (mm)	Stem 3 (mm)	Spread - N (m)	Spread - E (m)	Spread - S (m)	Spread - W (m)	RPR	RPA
601	26	2	1	560			5	4	4	3	6.7	141.9
602	20	4	1	270			1	1	1	1	3.2	33.0
603	22	11	1	350			1	1	1	2	4.2	55.4
604	22	4	1	580			4	3	3	1	7.0	152.2
605	21	5	1	340			5	1	1	1	4.1	52.3
606	16	3	1	190			4	1	1	1	2.3	16.3
607	11	1	1	320			5	4	3	4	3.8	46.3
608	11	2	1	210			5	1	1	1	2.5	20.0
609	21	8	1	450			5	4	3	2	5.4	91.6
610	19	5	1	490			7	3	3	4	5.9	108.6
611	23	8	1	530			5	4	2	3	6.4	127.1
612	16	2	1	440			7	4	1	4	5.3	87.6
613	24	9	1	660			4	4	3	5	7.9	197.1
614	16	6	1	410			4	2	1	1	4.9	76.1
615	16	6	1	370			3	1	2	1	4.4	61.9
616	18	10	1	380			2	2	1	1	4.6	65.3
617	19	5	1	380			2	2	1	1	4.6	65.3
618	18	8	1	360			2	2	2	2	4.3	58.6
619	21	11	1	340			2	2	2	2	4.1	52.3
620	19	8	1	410			3	3	2	3	4.9	76.1
621	19	7	1	380			2	5	2	1	4.6	65.3
622	19	9	1	380			1	5	1	1	4.6	65.3
623	10	1	1	290			3	2	2	2	3.5	38.1
624	15	1	1	340			1	2	2	1	4.1	52.3
625	27	12	1	520			4	3	1	1	6.2	122.3
626	11	2	1	200			2	1	1	1	2.4	18.1
627	11	1	1	320			1	5	4	1	3.8	46.3
628	18	1	1	660			5	5	4	4	7.9	197.1
629	17	2	1	420			3	2	3	1	5.0	79.8
630	18	2	2	340	150		3	1	2	1	4.5	62.5
631	18	2	1	400			4	1	2	1	4.8	72.4
632	18	2	2	230	270		2	1	2	1	4.3	56.9
633	18	2	1	460			3	1	3	1	5.5	95.7
634	18	1	1	390			4	1	1	1	4.7	68.8
635	18	1	1	510			3	1	3	1	6.1	117.7
636	17	1	1	360			4	1	1	1	4.3	58.6
637	15	10	1	370			4	1	1	1	4.4	61.9
638	15	2.5	1	720			7	6	5	5	8.6	234.5
639	14	2	1	300			4	1	2	1	3.6	40.7
640	15	1	1	340			3	1	1	1	4.1	52.3

641	19	2	2	390	270		3	1	2	1	5.7	101.8
642	14	2	1	310			2	1	2	1	3.7	43.5
643	14	2	1	200			2	1	2	1	2.4	18.1
644	13	2	2	120	200		2	1	3	1	2.8	24.6
645	13	2	1	190			2	1	2	1	2.3	16.3
646	14	2	1	220			3	1	2	1	2.6	21.9
647	16	2	1	310			2	1	2	1	3.7	43.5
648	15	2	1	280			2	3	3	1	3.4	35.5
649	17	3	1	420			4	1	3	1	5.0	79.8
650	17	2	1	420			4	1	2	1	5.0	79.8
651	17	2	3	230	260	70	4	1	3	1	4.2	56.7
652	17	2	1	270			3	1	1	1	3.2	33.0
653	17	2	1	320			3	1	1	1	3.8	46.3
654	15	2	1	340			4	1	2	1	4.1	52.3
655	20	1	3	440	630	350	7	6	7	8	10.1	322.6
656	26	2	1	570			4	4	3	3	6.8	147.0
657	21	1	1	310			3	1	3	3	3.7	43.5
658	19	3	3	280	340	410	2	3	2	2	7.2	163.8
659	17	2	1	250			2	1	1	2	3.0	28.3
660	20	1	3	440			2	3	1	1	5.3	87.6
661	22	14	1	440			3	1	2	3	5.3	87.6
Group 1	`17	1	1	270			3	3	3	3	3.2	33.0
Group 2	21	8	1	450			5	4	3	2	5.4	91.6
Group 3	`17	1	1	270			3	3	3	3	3.2	33.0

TREE

CONSTRAINTS PLAN





Please see also separate PDF document

APPENDIX 1

GLOSSARY OF ARBORICULTURAL TERMS

Abscission. The shedding of a leaf or other short-lived part of a woody plant, involving the formation of a corky layer across its base; in some tree species twigs can be shed in this way

Abiotic. Pertaining to non-living agents; e.g. environmental factors

Absorptive roots. Non-woody, short-lived roots, generally having a diameter of less than one millimetre, the primary function of which is uptake of water and nutrients

Adaptive growth. In tree biomechanics, the process whereby the rate of wood formation in the cambial zone, as well as wood quality, responds to gravity and other forces acting on the cambium. This helps to maintain a uniform distribution of mechanical stress

Adaptive roots. The adaptive growth of existing roots; or the production of new roots in response to damage, decay or altered mechanical loading

Adventitious shoots. Shoots that develop other than from apical, axillary or dormant buds; see also 'epicormic'

Age class. A means of classifying the trees current position in its expected life cycle. This is often classified as; young, early mature, mature, over mature, veteran, dead.

Anchorage. The system whereby a tree is fixed within the soil, involving cohesion between roots and soil and the development of a branched system of roots which withstands wind and gravitational forces transmitted from the aerial parts of the tree

Architecture. In a tree, a term describing the pattern of branching of the crown or root system

Arisings. All branch, stem wood, foliage, etc. that has been produced as a result of tree pruning or felling operations

Axil. The place where a bud is borne between a leaf and its parent shoot

Bacteria. Microscopic single-celled organisms, many species of which break down dead organic matter, and some of which cause diseases in other organisms

Bark. A term usually applied to all the tissues of a woody plant lying outside the vascular cambium, thus including the phloem, cortex and periderm; occasionally applied only to the periderm or the phellem

Basidiomycotina (Basidiomycetes). One of the major taxonomic groups of fungi; their spores are borne on microscopic peg-like structures (basidia), which in many types are in turn borne on or within conspicuous fruit bodies, such as brackets or toadstools. Most of the principal decay fungi in standing trees are basidiomycetes

Bolling. A term sometimes used to describe pollard heads

Bottle-butt. A broadening of the stem base and buttresses of a tree, in excess of normal and sometimes denoting a growth response to weakening in that region, especially due to decay involving selective delignification

Bracing. The use of rods or cables to restrain the movement between parts of a tree

Branch:

- **Primary.** A first order branch arising from a stem
- **Lateral.** A second order branch, subordinate to a primary branch or stem and bearing sub-lateral branches
- **Sub-lateral.** A third order branch, subordinate to a lateral or primary branch, or stem and usually bearing only twigs

Branch bark ridge. The raised arc of bark tissues that forms within the acute angle between a branch and its parent stem

Branch collar. A visible swelling formed at the base of a branch whose diameter growth has been disproportionately slow compared to that of the parent stem; a term sometimes applied also to the pattern of growth of the cells of the parent stem around the branch base

Brown-rot. A type of wood decay in which cellulose is degraded, while lignin is only modified

Buckling. An irreversible deformation of a structure subjected to a bending load

Buttress zone. The region at the base of a tree where the major lateral roots join the stem, with buttress-like formations on the upper side of the junctions

Cambium. Layer of dividing cells producing xylem (woody) tissue internally and phloem (bark) tissue externally

Canker. A persistent lesion formed by the death of bark and cambium due to colonisation by fungi or bacteria

Canopy species. Tree species that mature to form a closed woodland canopy

Cavity. A void in the tree's structure. This is normally caused by the activity of wood decay fungi

Cleaning out. The removal of dead, crossing, weak, and damaged branches, where this will not damage or spoil the overall appearance of the tree

Co-dominant (crown class).

Co-dominant (stems or branches). Two branches or stems of equal size that have arisen from 2 apical buds at the tip of the same stem. This is often associated (depending on genetic and circumstantial factors) with an inclusion of bark which may cause a point of mechanical weakness

Compartmentalisation. The confinement of disease, decay or other dysfunction within an anatomically discrete region of plant tissue, due to passive and/or active defences operating at the boundaries of the affected region

Compression strength. The ability of a material or structure to resist failure when subjected to compressive loading; measurable in trees with special drilling devices

Compressive loading. Mechanical loading which exerts a positive pressure; the opposite to tensile loading

Condition. An indication of the physiological vitality of the tree. Where the term 'condition' is used in a report, it should not be taken as an indication of the stability of the tree

Construction exclusion zone. Area based on the Root Protection Area (in square metres) to be protected during development, by the use of barriers and/or ground protection

Coppicing. A process whereby, following the cutting of a tree stem close to ground level, adventitous buds develop over time into stems arising from the parent stump

Crown/Canopy. The main foliage bearing section of the tree

Crown lifting. The removal of limbs and small branches to a specified height above ground level

Crown thinning. The removal of a proportion of secondary branch growth throughout the crown to produce an even density of foliage around a well-balanced branch structure

Crown reduction/shaping. A specified reduction in crown size whilst preserving, as far as possible, the natural tree shape

Crown reduction/thinning. Reduction of the canopy volume by thinning to remove dominant branches whilst preserving, as far as possible the natural tree shape

Deadwood. Branch or stem wood bearing no live tissues. Retention of deadwood provides valuable habitat for a wide range of species and seldom represents a threat to the health of the tree. Removal of deadwood can result in the ingress of decay to otherwise sound tissues and climbing operations to access deadwood can cause significant damage to a tree. Removal of deadwood is generally recommended only where it represents an unacceptable level of hazard

Decurrent. In trees, a system of branching in which the crown is borne on a number of major widely-spreading limbs of similar size (cf. excurrent). In fungi with toadstools as fruit bodies, the description of gills which run some distance down the stem, rather than terminating abruptly

Defect. In relation to tree hazards, any feature of a tree which detracts from the uniform distribution of mechanical stress, or which makes the tree mechanically unsuited to its environment

Delamination. The separation of wood layers along their length, visible as longitudinal splitting

Dieback. The death of parts of a woody plant, starting at shoot-tips or root-tips

Disease. A malfunction in or destruction of tissues within a living organism, usually excluding mechanical damage; in trees, usually caused by pathogenic micro-organisms (especially wood decay fungi)

Distal. In the direction away from the main body of a tree or subject organism (cf. proximal)

Dominance. In trees, the tendency for a leading shoot to grow faster or more vigorously than the lateral shoots; also the tendency of a tree to maintain a taller crown than its neighbours

Dormant bud. An axial bud which does not develop into a shoot until after the formation of two or more annual wood increments; many such buds persist through the life of a tree and develop only if stimulated to do so (for example, by pruning and or increased light levels)

Dysfunction. In woody tissues, the loss of physiological function, especially water conduction, in sapwood

DBH (Diameter at Breast Height). Stem diameter measured at a height of 1.5 metres (UK) or the nearest measurable point. Where measurement at a height of 1.5 metres is not possible, another height may be specified

Epicormic shoot. A shoot having developed from a dormant or adventitious bud and not having developed from a first year shoot

Excrescence. Any abnormal outgrowth on the surface of tree or other organism

Excurrent. In trees, a system of branching in which there is a well defined central main stem, bearing branches which are limited in their length, diameter and secondary branching (cf. decurrent)

Felling. The process of cutting a tree down, to a point near ground level, in a controlled way. This is a course of remedial action with the intention of permanently removing a tree.

Felling licence. In the UK, a permit to fell trees in excess of a stipulated number of stems or volume of timber

Flush-cut. A pruning cut which removes part of the branch bark ridge and or branch-collar

Girdling root. A root which circles and constricts the stem or roots possibly causing death of phloem and/or cambial tissue

Guying. A form of artificial support with cables for trees with a temporarily inadequate anchorage

Habit. The overall growth characteristics, shape of the tree and branch structure

Hazard beam. An upwardly curved part of a tree in which strong internal stresses may occur without being reduced by adaptive growth; prone to longitudinal splitting

Heartwood/false-heartwood/ripewood. Sapwood that has become dysfunctional as part of the natural aging processes

Incipient failure. In wood tissues, a mechanical failure which results only in deformation or cracking, and not in the fall or detachment of the affected part

Included bark (ingrown bark). Bark of adjacent parts of a tree (usually forks, acutely joined branches or basal flutes) which is in face-to-face contact

Increment borer. A hollow auger, which can be used for the extraction of wood cores for counting or measuring wood increments or for inspecting the condition of the wood

Infection. The establishment of a parasitic micro-organism in the tissues of a tree or other organism

Internode. The part of a stem between two nodes; not to be confused with a length of stem which bear nodes but no branches

Lever arm. A mechanical term denoting the length of the lever represented by a structure that is free to move at one end, such as a tree or an individual branch

Lignin. The hard, cement-like constituent of wood cells; deposition of lignin within the matrix of cellulose microfibrils in the cell wall is termed Lignification

Lions tailing. A term applied to a branch of a tree that has few if any side-branches except at its end, and is thus liable to snap due to end-loading

Loading. A mechanical term describing the force acting on a structure from a particular source; e.g. the weight of the structure itself or wind pressure

Longitudinal. Along the length (of a stem, root or branch)

Minor deadwood. Deadwood of a diameter less than 25mm and unlikely to cause significant harm or damage upon impact with a target beneath the tree

Mulch. Material laid down over the rooting area of a tree or other plant primarily to help conserve moisture; a mulch may consist of organic matter or a sheet of plastic or other artificial material

Occluding tissues. A general term for the roll of wood, cambium and bark that forms around a wound on a woody plant (cf. woundwood)

Occlusion. The process whereby a wound is progressively closed by the formation of new wood and bark around it

Pathogen. A micro-organism which causes disease in another organism

Picus sonic tomography. A diagnostic technology which creates a two dimensional picture of a trees cross section by measuring the velocity of a series of ultra-sound pulses which are sent, and received, from a number of sensors (usually eight to twelve in number) which are placed around the trees circumference

Pollarding. The removal of the tree canopy, back to the stem or primary branches. Pollarding may involve the removal of the entire canopy in one operation, or may be phased over several years. The period of safe retention of trees having been pollarded varies with species and individuals. It is usually necessary to re-pollard on a regular basis, annually in the case of some species

Primary branch. A major branch, generally having a basal diameter greater than 0.25 x stem diameter

Primary root zone. The soil volume most likely to contain roots that are critical to the health and stability of the tree and normally defined by reference to BS5837 (2005) Trees in Relation to Construction Recommendations

Priority. Works may be prioritised, 1. = high, 5. = low

Probability. A statistical measure of the likelihood that a particular event might occur

Proximal. In the direction towards from the main body of a tree or other living organism (cf. distal)

Pruning. The removal or cutting back of twigs or branches, sometimes applied to twigs or small branches only, but often used to describe most activities involving the cutting of trees or shrubs

Radial. In the plane or direction of the radius of a circular object such as a tree stem

Reactive Growth/Reaction Wood. Production of woody tissue in response to altered mechanical loading; often in response to internal defect or decay and associated strength loss (cf. adaptive growth)

Removal of dead wood. Unless otherwise specified, this refers to the removal of all accessible dead, dying and diseased branchwood and broken snags

Removal of major dead wood. The removal of, dead, dying and diseased branchwood above a specified size

Respacing. Selective removal of trees from a group or woodland to provide space and resources for the development of retained trees.

Residual wall. The wall of non-decayed wood remaining following decay of internal stem, branch or root tissues

Root-collar. The transitional area between the stem/s and roots

Root-collar examination. Excavation of surfacing and soils around the root-collar to assess the structural integrity of roots and/or stem

Root protection area. An area of ground surrounding a tree that contains sufficient rooting volume to ensure the tree's long term retention, close to optimal physiological and structural condition. Calculated with reference to BS5837 (2005)

Root zone. Area of soils containing absorptive roots of the tree/s described. The **Primary** root zone is that which we consider of primary importance to the physiological well-being of the tree

Sapwood. Living xylem tissues

Secondary branch. A branch, generally having a basal diameter of less than 0.25 x stem diameter

Selective delignification. A kind of wood decay (white-rot) in which lignin is degraded faster than cellulose

Shedding. In woody plants, the normal abscission, rotting off or sloughing of leaves, floral parts, twigs, fine roots and bark scales

Silvicultural thinning. Removal of selected trees to favour the development of retained specimens to achieve a management objective

Simultaneous white-rot. A kind of wood decay in which lignin and cellulose are degraded at about the same rate

Snag (stub). In woody plants, a portion of a cut or broken stem, branch or root which extends beyond any growing-point or dormant bud; a snag usually tends to die back to the nearest growing point

Soft-rot. A kind of wood decay in which a fungus degrades cellulose within the cell walls, without any general degradation of the wall as a whole

Sprouts. Adventitious shoot growth erupting from beneath the bark

Stem/s. The main supporting structure/s, from ground level up to the first major division into branches

Stress. In plant physiology, a condition under which one or more physiological functions are not operating within their optimum range, for example due to lack of water, inadequate nutrition or extremes of temperature

Stress. In mechanics, the application of a force to an object

Stringy white-rot. The kind of wood decay produced by selective delignification

Structural roots. Roots, generally having a diameter greater than ten millimetres, and contributing significantly to the structural support and stability of the tree

Subsidence. In relation to soil or structures resting in or on soil, a sinking due to shrinkage when certain types of soil dry out, sometimes due to extraction of moisture by tree roots

Subsidence. In relation to branches of trees, a term that can be used to describe a progressive downward bending due to increasing weight

Taper. In stems and branches, the degree of change in girth along a given length

Target canker. A kind of perennial canker, containing concentric rings of dead occluding tissues

Targets. In tree risk assessment (with slight misuse of normal meaning) persons or property or other things of value which might be harmed by mechanical failure of the tree or by objects falling from it

Topping. In arboriculture, the removal of the crown of a tree, or of a major proportion of it

Torsional stress. Mechanical stress applied by a twisting force

Tree preservation order (TPO). A legal protection of the tree, and its rooting zone, enforced by the planning department of local government. Most remedial work proposed on a preserved tree requires written approval from this authority.

Veteran tree. A loosely defined term for an old specimen that is of interest biologically, culturally or aesthetically because of its age, size or condition and which has usually lived longer than the typical upper age range for the species concerned

Vigour. In tree assessment, an overall measurement of the rate of shoot production, shoot extensi. Often expressed as normal, fair, low or dead (for a given species) (*cf.* Vitality)

Vitality. In tree assessment, an overall measurement of physiological and bio-chemical processes, in which high vitality equates with healthy function (*cf.* Vigour)

White-rot. A range of kinds of wood decay in which lignin, usually together with cellulose and other wood constituents, is degraded

Wind exposure. The degree to which a tree or other object is exposed to wind, both in terms of duration and velocity

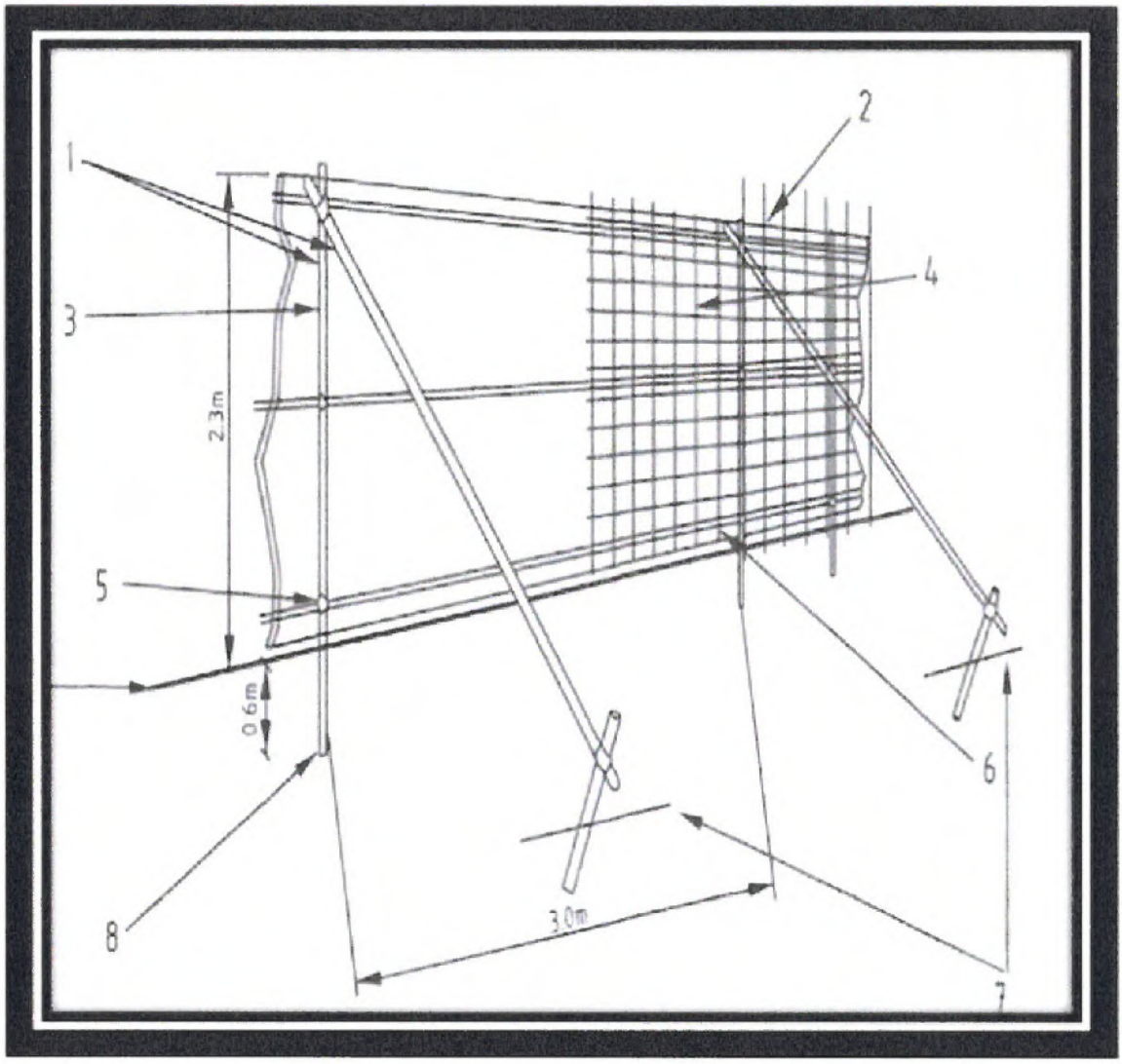
Wind pressure. The force exerted by a wind on a particular object

Windthrow. The blowing over of a tree at its roots

Woundwood. Wood with atypical anatomical features, formed in the vicinity of a wound

APPENDIX 2

DEFAULT SPECIFICATION FOR PROTECTIVE BARRIERS, AS PER BS 5837: 2012 FIGURE 2.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APPENDIX 3

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APPENDIX 4

TABLE 1 – BSI 5837

TREE QUALITY ASSESSMENT

Table 1 **Cascade chart for tree quality assessment**

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the 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 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; see 4.5.7.*			Trees identified by tree number and coloured circle referring to retention category
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
Trees to be considered for retention				
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 are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood pasture)	**Colour** Dark Red **RGB Code** 127-000-000
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 though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	**Colour** Light Green **RGB Code** 000-255-000
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 present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	**Colour** Mid Blue **RGB Code** 000-000-255

Aquila Ecology

TOURS TRAINING SURVEYS

report to

Mr &Mrs Bradfield

Protected Species Survey

Birchfield, Caledonian Crescent, Gleneagles

March 2018

Quality Assurance

Prepared by:	Name	Andrea Hudspeth	Title	Principal Ecologist
Checked by:	Name	Terry Williams	Title	Ecologist
Current Status:	DRAFT			
Issue Date:	26.03.2018	Revision number:	0	
		Revision notes:		

Quality Assurance: This report has been prepared according to Aquila Ecology Quality Management System. Aquila Ecology comprises consultant ecologists who are members of appropriate professional institutions and adhere to professional codes of conduct.

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1. Introduction

1.1. Project Description

Aquila Ecology was contracted in February 2018 to complete a Protected Species Survey of trees within Mr & Mrs Bradfield's land at Birchfield, Caledonian Crescent, Gleneagles, Perthshire, with a view to splitting the existing land into two distinct plots for development.

The number and species of trees likely to be felled is not known at this stage. The existing plot is bordered by trees along all four sides although some selective felling and pruning has already occurred along the eastern boundary for the benefit of the neighbouring property.

A Protected Species Survey has been recommended by Perth & Kinross Council as part of the process of gaining planning permission.

1.2. Legislation

EUROPEAN PROTECTED SPECIES

All bat species found in the UK are European Protected Species (EPS). EPS are those which are protected by the EC Habitats and Species Directive 92/43/EEC. The Conservation (Natural Habitats, &c.) Regulations 1994 translates this European legislation into UK law. This has been amended in Scotland by The Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2004 and 2007 and the Conservation (Natural Habitats, &c.) Amendment (No. 2) (Scotland) Regulations 2008. In addition to all bat species, EPS includes; Otter, wildcat and great crested newt. The regulations make it an offence to deliberately or recklessly:

- capture, injure or kill an EPS
- harass a wild animal or group of wild animals of EPS
- to disturb such an EPS while it is occupying a structure or place it uses for shelter or protection
- to disturb an EPS while it is rearing or otherwise caring for its young
- to obstruct access to a breeding site or resting place of an EPS or to otherwise deny an EPS use of a breeding site or resting place
- to disturb an EPS in a manner that is, or in circumstances which are, likely to significantly affect the local distribution or abundance of the species to which it belongs
- to disturb an EPS in a manner that is, or in circumstances which are, likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young
- to disturb such an animal while it is migrating or hibernating

It is also an offence to:

- damage or destroy a breeding site or resting place of such an animal

- keep transport, sell or exchange or offer for sale or exchange any wild animal or plant EPS or any part or derivative of one (from 1st May 2007).

In relation to protected species of animal, licences can be issued under Regulation 44 that will permit, only for specific purposes, certain actions that would otherwise be a criminal offence. Scottish Natural Heritage (SNH) is the body responsible for all EPS licensing under the Habitats Regulations (with the exception of some areas of licensing for whales and dolphins).

There is no provision for licences for development, however, under Regulation 44 (2e) of the Conservation (Natural Habitats, &c.) Regulations 1994 licences may be granted for:

- Preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.

However a licence will not be granted unless, importantly under 44 (3), the appropriate licensing authority is satisfied:

- That there is no satisfactory alternative; and

- That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

WILDLIFE AND COUNTRYSIDE ACT 1981

The Wildlife and Countryside Act 1981 provides protection to species and habitats. The Nature Conservation (Scotland) Act 2004 amends the Wildlife and Countryside Act 1981 in Scotland. In April 2012 the Wildlife and Natural Environments (Scotland) Act 2011 (WANE) has further amended the 1981 Act. This is in particular relation to the prevention of release and control of non-native species of animal and plant.

BIRDS

All wild birds receive general protection to their nest and eggs under the Wildlife and Countryside Act 1981, as amended by the Wildlife and Natural Environment (Scotland) Act 2011. Some species receive enhanced statutory protection due to their listing in schedule 1 of the Wildlife and Countryside Act 1981. It is an offence to disturb a Schedule 1 species while it is building a nest or is in, on, or near a nest containing eggs or young.

There are obligations within the Birds Directive 1979 relating both to protection of species and maintenance of habitats. Birds on Annex 1 to the Birds Directive, regularly occurring migratory species, and birds on Schedule 1 to the Wildlife & Countryside Act are recognised in statute as requiring special conservation measures.

A number of bird species have been highlighted in non-statutory lists as priorities of Conservation Concern in the United Kingdom. This includes those listed in Birds of Conservation Concern 3: and those included on the Scottish Biodiversity List as priority species. Birds are assigned according to one of these three categories (Eaton et al. (2009):

- Red List Species - those birds whose populations or range is rapidly declining (recently or historically), and those of global conservation concern;

- Amber List Species - those birds whose populations are in moderate decline, rare breeders, internationally important and localised species and those of an unfavourable conservation status in Europe; and,

- Green List Species - those other birds occurring in the United Kingdom not included in the Red or Amber Lists above. Further details of the appraisal can be found in Eaton et al. (2009).

SCHEDULE 5 ANIMALS

Enhanced protection is provided for species listed on Schedule 5, including Red Squirrel, Water Vole, Pine Marten and Freshwater Pearl Mussel. It is an offence to recklessly kill, injure or take animals listed on Schedule 5, with the exception of Water Vole. Water Voles are protected in respect of section 9(4) only (in Scotland), meaning that water vole habitat is protected, although the animals themselves are not.

It is also an offence to recklessly damage, destroy or obstruct access to any place used for shelter or breeding. Licences are available for development purposes if certain conditions are met. Licences should be applied for from SNH.

HABITATS AND PLANTS

The protection of habitats and plants of national importance is provided under the provisions of the Wildlife & Countryside Act 1981 (as amended). This designates key sites that fulfil the habitat designation criteria as Sites of Special Scientific Interest (SSSI). Certain plant species receive enhanced statutory protection under Schedule 8 of the Act.

NON-NATIVE SPECIES

The WANE Act amended and expanded Section 14 of the Wildlife and Countryside Act 1981. The 1981 Act now contains sections on the release or planting of all non-native species and the keeping, sale and notification of invasive species, in addition to provisions on Species Control Agreements and Species Control Orders. Non-native is re-defined to include native species outwith their natural range and the natural range is further defined as the location in which an animal or plant is indigenous. The 'wild' is also more clearly defined and there is a list of exempted land (Section 5, list 2 of Code of Practice). The WANE Act also put in place the means to introduce a new code of practice with regard to non-native species. This was done under Section 14C of the amended Wildlife and Countryside Act and came into force in July 2012. The code of practice should be referred to when dealing with any non-native animal or plants. The code outlines the law relating to native and non-native species and explains the main provisions set out in the 1981 Act. Schedule 9 has now been repealed.

PROTECTION OF BADGERS ACT 1992

The Protection of Badgers Act (1992) provides full legal protection to badgers. In Scotland, this legislation was amended by the Nature Conservation (Scotland) Act 2004 and more recently by the Wildlife and Natural Environment (Scotland) Act 2011. It is an offence to recklessly take, injure or kill a badger (or knowingly cause or permit such an offence), or destroy or cause disturbance to their

setts. SNH interprets the legislation in such a way that any sett within an active badger territory is afforded legal protection, whether it shows signs of recent use or not. In addition, badgers are afforded protection from cruel ill treatment. All the definition of 'ill treatment' has not been clearly defined; this is likely to include preventing badgers access to their setts as well as causing the loss of significant foraging resources within a badger territory. Licences are available for the disturbance or destruction of setts. SNH must be consulted prior to any works which could cause disturbance to badgers.

UK, SCOTTISH AND LOCAL BIODIVERSITY POST-2010

In October 2010, 192 governments and the European Union met in Nagoya, Aichi Province, Japan and together reached new agreement on global biodiversity. This was the 'Strategic Plan for Biodiversity 2011-2020' and contains five strategic goals and 20 new global targets referred to as the 'Aichi Targets'. In the UK this translates into the 'UK Post-2010 Biodiversity Framework'.

As a consequence of this new strategy the UK BAP partnership no longer operates. The work previously carried out by the partnership will now be focussed within each of the four countries i.e., Scotland, England, Wales and Northern Ireland. This also means that the species and habitats agreed under the UK BAP will now be superseded by each country's own priority list.

The current SBL can be seen by following the link below.

http://www.gov.scot/Topics/Environment/Wildlife-Habitats/16118/Biodiversitylist/SBL

NON-STATUTORY DESIGNATED SITES (INCLUDING LNCS)

Local and district level non-statutory designations, often called Sites of Importance for Nature Conservation (SINCs) or Local Nature Conservation Sites (LNCS), may be identified by Local Planning Authorities. In addition, other sites including those managed by organisations like Royal Society for the Protection of Birds (RSPB), Scottish Wildlife Trust (SWT), National Trust for Scotland (NTS), Woodland Trust (WT) and John Muir Trust (JMT) are also considered, where relevant.

ANCIENT WOODLAND INVENTORY

This is woodland listed on the Ancient and semi-natural woodland inventory (identified by the former Nature Conservancy Council and held/updated by SNH).

2. Surveys: Methods & Results

2.1. Survey Personnel

All survey and reporting was overseen by Andrea Hudspeth. Andrea is an SNH licensed bat worker (licence number 18123), an experienced ecologist, botanist, qualified tree climber and an Associate Member of the Chartered Institute of Ecology and Environmental Management (ACIEEM).

2.2. Site Location

Birchfield is located in Gleneagles Village which is located immediately southeast of Crieff and southwest of Auchterarder at National Grid Reference NN 92099 11360. All works will take place within the unitary authority of Perth and Kinross.

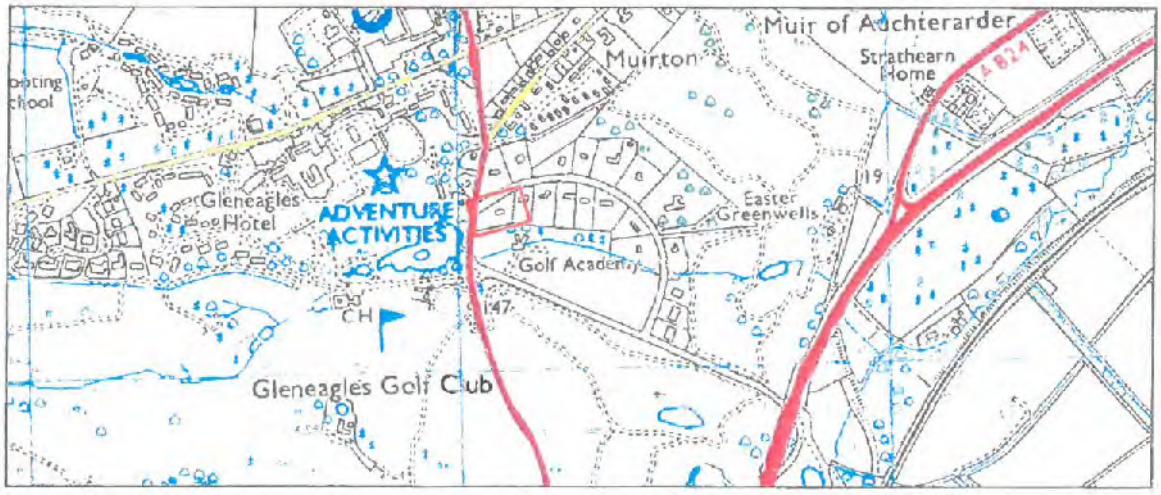

Figure 1: Location Map – box indicates the plot of land where the property and trees are located

2.3. Desk Top Study

2.3.1. Methodology

A search was conducted for records of Protected Species and designated sites within a 5km radius of the survey area. The following information sources were interrogated:

- National Biodiversity Network (NBN) Scotland Atlas and author's own records for species records; and
- Scottish Natural Heritage Interactive tool (SNHi) for protected sites.

2.3.2. Results

Protected Species

A search was made for records of protected species which are known to select woodland habitats i.e. Red Squirrel *Sciurus vulgaris*, Pine Marten *Martes martes*, Wildcat *Felis silvestris*, bat species

Chiroptera and Badger *Meles meles* within the past 10 years on the NBN Scotland Atlas. The results are summarised in Table 1 below.

Table 1: NBN Data Search Results within 10km grid square NN72

Species	Data Source	Grid Ref	Record Date/s	Distance from site
Red Squirrel	Scottish Wildlife Trust The Mammal Society British Trust for Ornithology	NN81 NN91 NN80 NN90	1995-2017 (171 records)	Minimum distance <100m
Pine Marten	The Mammal Society	NN9313 NN9214	March 2015 May 2014	3km approx 4km approx
Brown long-eared bat	Scottish Natural Heritage	NN9211 NN9215	June 2014 August 2014	Within 1km 4km approx
Common pipistrelle bat	Scottish Natural Heritage	NN9111 NN9114	July 2002 August 2002	1km approx 4km approx
Soprano pipistrelle bat	Scottish Natural Heritage	NN9211	June 2014	Within 1km
Badger	No recent sightings recorded within 5km of the survey site			

The report author is able to confirm recent sightings of the following protected species on the neighbouring Gleneagles Estate:

Pine Marten – field signs have been detected during previous surveys to the east of the hotel building and within 300m of Caledonian Crescent.

Red Squirrel – sightings are regularly reported in gardens throughout Gleneagles Village and the estate grounds. Two dead Red Squirrels were witnessed on the minor road as approaching the property on the day of the survey.

Otter – field signs of Otter have been detected during previous surveys on the Gleneagles Estate, on a small burn which runs south of property within 150m of the property boundary.

Bats – the report author has been recording bat activity within the area for the past 6 years. Known roosts within 5km of the survey site include: Soprano pipistrelle *Pipistrellus pygmaeus,* Common pipistrelle

Designated sites

A search was made for designated sites within a 5km buffer on SNHi Sitelink and further information was obtained from the JNCC website.

International – Ramsar Sites

Ramsar sites are wetlands of international importance designated under the Ramsar Convention. Many Ramsar sites are also Special Protection Areas (SPAs) classified under the Conservation of Wild Birds (79/409/EEC) (The Birds Directive).

European – Natura 2000 Sites

European sites consist of Special Protection Areas (SPAs) and Special Areas of Conservation (SACs). SPAs aim to protect the habitat of rare, threatened or migratory bird species under Council Directive of 2 April 1979 on the Conservation of Wild Birds (79/409/EEC) (The Birds Directive). SACs aim to protect rare, endangered or vulnerable habitats and species under Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats and Species Directive). The Conservation (Natural Habitats &c) Regulations 1994 (the 'Habitats Regulations') implement these Directives in Britain.

National Designations

SNH has a duty under the Wildlife and Countryside Act 1981, as amended, to notify any area of land which in their opinion is 'of special interest by reason of any of its flora, fauna, or geological or physiographical features'. Such areas are known as Sites of Special Scientific Interest (SSSIs).

Designated sites within the survey area are detailed in Table 2 below.

Table 2: Designated Sites

Site Name	Special Feature/s	Distance from site	NGR
White Water Basin Mire SSSI	Largest known example of a basin fen consisting of poor-fen in the lowlands in west Perth and Kinross.	2km approx-	NN 914107
Bog Wood and Meadow SSSI	Species-rich fen meadow and wet willow scrub woodland.	1.5km approx	NN 921092
Kincardine Castle Woods SSSI	One of the most extensive areas of ancient lowland mixed broadleaved woodland remaining in Perth and Kinross, comprising three sections.	3km approx	NN 950113, NN 942119, NN 949121

In addition to the nationally designated SSSI, there are 19 locally designated Sites of Scientific Interest (SSI) which include mire habitats, mature Beech trees (Beeches Brigg), Laich Loch and Loch on Eerle, habitats within the Heuch o' Dule, and the burn behind the Golf Academy.

2.4. Field Surveys

2.4.1. Protected Species Survey - Methodology

The trees were surveyed at ground level for the presence of Red Squirrel dreys and the surrounding habitat was surveyed for other field signs such as feeding remains. The trees were then surveyed in greater detail for the presence of potential bat roost features. Identified features were accessed and surveyed using a boroscope and ladders where possible. The features were assessed for their suitability to support roosting bats and suitable features were searched for actual animals or their field signs.

Consideration was also given to the possibility of the features supporting other species such as dens for Pine Martens and nest holes for owl species such as Tawny Owl *Strix aluco* as well as any active bird nests.

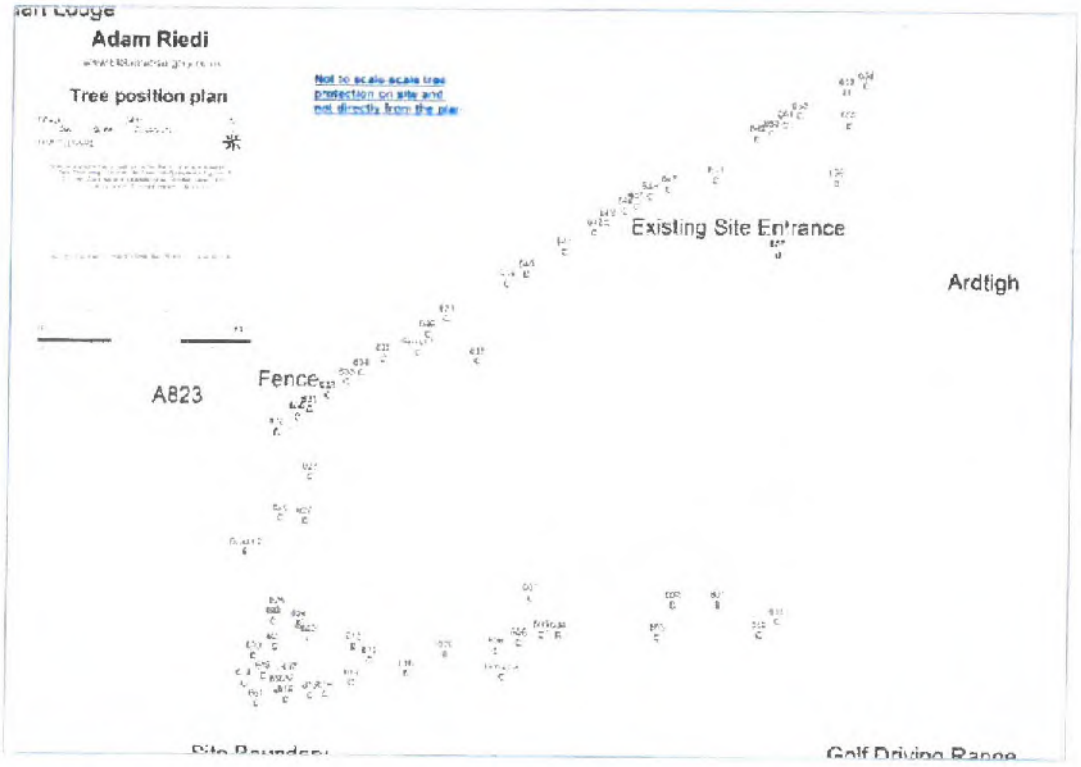

Figure 2: Site plan and location of trees (taken from BS5737 Tree Survey Report (Reidi, 2018))

Suitable features and field signs considered for bats included:

- rot holes;
- broken and dead limbs with cavities or cracks;
- woodpecker holes;
- lifted or detached platey bark;
- splits and cracks in main stems or branches;
- knot holes;
- bat droppings;
- feeding remains;

- smell of urine;
- staining; and
- live animals.

Survey and safety equipment utilised included:

- high powered torches;
- an extendable ladder;
- boroscope;
- camera; and
- binoculars.

2.4.2. Protected Species Survey – Results

Protected Species

No conclusive signs of protected species were found during the survey.

Red Squirrel – No potential squirrel dreys or feeding remains were located within the trees. A very small number of split Hazelnut shells were found within the garden, but as there are no Hazel trees present it is thought the nuts have been brought in from squirrel feeders. The Red Squirrel is listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

Pine Marten – No potential Pine Marten dens, feeding remains or scats were located within the trees or the wider survey site. The Pine Marten is listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

Wildcat - No potential Wildcat dens, feeding remains or scats were located within the trees or the wider survey site. The Wildcat is a European Protected Species.

Bats – No confirmed bat roosts were located within the trees and no field signs were located.

Badger – No field signs of Badger such as latrines, sets, track and trails, guard hairs were found within the survey area. Badgers have legal protection under the Protection of Badgers Act 1992.

Owls – None of the trees had features suitable for nesting owls. Three nests were identified in total; one appeared to be newly built up and a Woodpigeon was noted nearby, the other two appeared old and were constructed of woody twigs so were thought to be old corvid nests. All nesting wild birds in the UK are protected under the Wildlife and Countryside Act 1981 (as amended).

For ease of survey and reporting the trees have been separated into groupings. The first group consists of the line of trees adjacent to Caledonian Crescent to the front of the property; the second group consists of the area of trees adjacent to the main A823 to the west of the property; the third group refers to the line of trees adjacent to the driving range to the south of the property and last group consists of the stand-alone trees within the garden.

Table 3: Bat Roost Assessment

Group Number.	Tag Number	Feature	Photo Ref.	Species	Height	BCT Class[1]	Notes
1	0654-0639 0637-0630 60 untagged trees	No bat roost features present	1-4	Lawson cypress	15m ave	Low	0645a (untagged) built up bird nest possibly Woodpigeon 0636 – old nest present – probably corvid species 0631- old nest present, probably corvid species
2	0629	No bat roost features present		Leyland cypress	17m	Low	
2	0628 2 untagged trees	No bat roost features present	5	Douglas fir Sitka spruce	18m 16m ave	Low	
2	0627 & 0626 2 untagged trees	No bat roost features present	6	Variegated Leyland cypress	10m ave	Low	
2	0625 6 untagged trees	No bat roost features present		Grand fir	22m ave	Low	
2	0624 & 0623	No bat roost features present		Lawson cypress	13m ave	Low	
2	0622-0617	No bat roost features present		Sitka spruce	19m ave	Low	
2	0616	No bat roost features present		Grand fir	25m	Low	

[1] BCT Class = High, Moderate or Low classification as set out by the Bat Conservation Trust in their guidance (see references)

Group Number.	Tag Number	Feature	Photo Ref.	Species	Height	BCT Class[1]	Notes
2	0615 0614	No bat roost features present		Lodgepole pine	16m	Low	
2	0613	No bat roost features present		Sitka spruce	24m	Low	
2	0657	No bat roost features present		Sitka Spruce		Low	
2	0612	No bat roost features present		Beech	16m	Low	
2	0611	No bat roost features present		Sitka spruce	23m	Low	
3	0610	Wound in tree has possible bat roost potential	7	Sycamore	19m	Low-med	Complete at height survey to check feature if felling
3	0609 & 0608	No bat roost features present		Sitka spruce	21m & 11m	Low	
3	0606-0604 1 untagged tree	No bat roost features present		Sitka spruce	19m ave	Low	
3	0603 & 0602 1 untagged tree	No bat roost features present		Grand fir Sitka spruce	21m ave 18m	Low	

Group Number.	Tag Number	Feature	Photo Ref.	Species	Height	BCT Class[1]	Notes
3	0601 2 untagged trees	No bat roost features present		Sitka spruce Sitka spruce	26m 18m ave	Low	
3	0659 & 0658	No bat roost features present	8	Lawson cypress	18m ave	Low	Old nest in 0659 – probably corvid species
3	0661	No bat roost features present		Sitka spruce	22m	Low	
3	0660	No bat roost features present		Grand fir	20m	Low	
4	0638	No bat roost features present	9	Beech	15m	Low	
4	0607	No bat roost features present	10	Variegated Leyland cypress	11m	Low	
4	0657	No bat roost features present	11	Grand fir	21m	Low	
4	0656	No bat roost features present	11	Grand fir	26m	Low	
4	0655	No bat roost features present	11	Sycamore	18m	Low	

2.5. Evaluation of Results

No signs of protected species were located within the survey area and no trees were deemed to have high potential for roosting bats or had features that required further survey.

The general area is heavily wooded with deciduous and coniferous trees and already supports a good number of bats and Red Squirrels and is known to also support Pine Marten. The surrounding habitat is ideal for these species in terms of breeding and foraging and the Red Squirrels also benefit from supplementary feeding by local residents. There are a number of alternative trees in the area which have more suitable features for roosting bats and there are other species of trees which are more preferable to squirrels for building their dreys.

2.6. Survey Limitations

An absence of evidence does not indicate that a species is absent. Different species are more active at certain times of the year when their field signs are more numerous and can be easier to detect. Winter is a time of reduced activity for a number of British species.

3. Impact Assessment

3.1. Protected Species

The potential impacts to only those protected species which have been recorded in the area of the survey site are discussed below on the assumption that trees will be felled at some future date.

Red Squirrel

There should be no direct impact to Red Squirrel as long as Method Statements pertaining to risks to wildlife are produced and adhered to. No residual impacts are foreseen.

Pine Marten

There should be no direct impact to Pine Marten during and post-construction as long as Method Statements pertaining to risks to wildlife are produced and adhered to. No residual impacts are foreseen.

Bats

There should be no direct impacts to bats. A Method Statement should be produced outlining how these trees are to be felled and where any bats found should be removed to.

Other Species

There should be no direct impact to other mammals, birds, amphibians or reptiles during or post-construction as long as Method Statements pertaining to risks to wildlife are produced and adhered to. No residual impacts are foreseen.

4. Mitigation & Compensation

4.1. Introduction

This section makes recommendations in order to reduce any significant impacts, if present, or to fulfil legal obligations or to provide best practice recommendations.

4.2. Recommended Mitigation

4.2.1. General Mitigation

In line with best practice, the lead contractor should identify all possible risks concerning environmental factors at the site and produce all necessary Risk Assessments, Method Statements and organise Toolbox Talks as and when deemed necessary. These should include:

- Managing risk of pollution; and
- Managing risks to wildlife.

Best management working practices should be implemented on site to minimise the risk of pollution incidents. Particular regard should be given to the storage of fuel and other potential pollutants on the site. Works should be undertaken in compliance with Scottish Environment Protection Agency (SEPA) Pollution Prevention Guidelines.

4.2.2. Wildlife

General

An emergency procedure should be in place should any protected species or their resting site (e.g. bat roost, active bird nest, Badger sett, Squirrel drey, Pine Marten den) be encountered during operations. All work should cease in the area immediately and a suitably qualified ecologist should be consulted to determine any mitigation requirements i.e. suitable set-backs or buffer zones, consultation with statutory bodies and the submission of licence applications if required.

All felling should take place during daylight hours and the use of floodlights should be avoided. Many mammal and owl species are more active after dark and artificial lighting could alter their behaviour and cause unnecessary disturbance. Working after dark could also prevent roosting birds from following their natural patterns.

Red Squirrel

In the event that a Red Squirrel drey is discovered prior to or during felling, all felling in the vicinity should be postponed or should cease and a suitably experienced ecologist should be contacted to ascertain an appropriate way forward.

Pine Marten

In the event that a Pine Marten den is discovered during felling, all felling in the vicinity should be postponed or should cease and a suitably experienced ecologist should be contacted to ascertain an appropriate way forward.

Badger

In the event that a Badger sett is established during the felling, all felling in the vicinity should be postponed or should cease and a suitably experienced ecologist should be contacted to ascertain an appropriate way forward.

Bats

Avoiding damage to existing roosts is always the preferred option. This involves taking steps to avoid killing, injury or disturbance to bats and damage to or loss of their roosts. No bat summer roosts or winter hibernation roosts have been confirmed in the felling area.

Felling should be timed to avoid the main bat breeding season. The optimum time for completing felling is 1st November to 1st April. There is the possibility of bats remaining in trees during the winter for hibernation.

All contractors should be alerted to the possibility of discovering bats during felling. If any bats are encountered, felling must stop immediately and a bat licensed ecologist, or SNH, should be contacted for advice. No bats should be handled unless it is to prevent them from harm; if a bat is moved gloves must be worn.

The use of floodlight type lighting in works areas should be avoided. Strong lighting disturbs bats and can also change the ambient temperature making an area no longer suitable. This is particularly important if any bats are hibernating.

Birds

To ensure compliance with the Wildlife and Countryside Act 1981 (as amended), tree felling should be undertaken outside the nesting bird season (which is weather dependent but generally extends between March and September inclusive). If this is not possible, the trees should be checked by an experienced ecologist for nesting birds immediately prior to felling commencing. If birds are found to be nesting, any felling which may affect them would have to be delayed until the young have fledged and the nest has been abandoned naturally.

Amphibians and Reptiles

In the event that any amphibian or reptile species are discovered during felling, all felling in the vicinity should cease and a suitably experienced ecologist contacted to identify the species.

4.3. Recommended Compensation

The following recommendations are made to suggest ways in which habitat that will no longer be available to certain species for breeding, resting, feeding or shelter can be compensated for.

4.3.1. Nest Boxes

Nest boxes could be installed in any of the trees that remain after development specifically for bats, Pine Marten and small bird species. It may also be possible to factor in nest boxes within the design of any new build such as bat tubes or Swift boxes.

5. References

Birks, JDS., Bullions, S., Cresswell, WJ. & Dean, M. (Eds.) (2014) *UK BAP Mammals: Interim Guidance for Survey Methodologies, Impact Assessment and Mitigation.* The Mammal Society, London

Collins, J. (Ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines*, (3rd edition). The Bat Conservation Trust, London.

Johnson, O. & Moore, D. (2004) *Collins Tree Guide*. Harper Collins, London.

6. Appendix: Photographs

Photo 1: New nest (possibly Woodpigeon) in untagged tree next to tree no. 0645

Photo 2: Old nest (probably corvid species) in tree no. 0636

Photo 3: Old nest (probably corvid) in tree no. 0631

Photo 4: Group 1 trees

Photo 5: Douglas fir (tree no. 0628)

Photo 6: Variegated cypress (tree no. 0627) in group 2

Photo 7: Wound with bat roost potential on tree no. 0610

Photo 8: Old nest (probably corvid) in 0659

Photo 9: Beech, tree no. 0638

Photo 10: Variegated cypress, tree no. 0607

Photo 11: Sycamore (tree no. 0655) and Grand firs (tree no.s 0656 & 0657)

Photo 12: View inside woodland area, group 2

Photo 13: View along southern boundary, group 3

Photo 14: View along eastern boundary

Policy NE1: Environment and Conservation Policies

Policy NE1A: International Nature Conservation Sites

Development which could have a significant effect on a site designated or proposed under the Habitats or Birds Directive (Special Areas of Conservation and Special Protection Areas) or Ramsar site, will only be permitted where:

(a) an appropriate assessment has demonstrated that it will not adversely affect the integrity of the site, or
(b) there are no alternative solutions, and
(c) there are imperative reasons of overriding public interest, including those of social or economic nature.

Policy NE1B: National Designations

Development which would affect a National Park, National Scenic Area, Site of Special Scientific Interest or National Nature Reserve, will only be permitted where the Council as Planning Authority is satisfied that:

(a) the proposed development will not adversely affect the integrity of the area or the qualities for which it has been designated; or
(b) any such adverse effects are clearly outweighed by social, environmental or economic benefits of national importance.

Policy NE1C: Local Designations

Development which would affect an area designated by the Planning Authority as being of local conservation or geological interest will not normally be permitted, except where the Council as Planning Authority is satisfied that:

(a) the objectives of designation and the overall integrity of the designated area would not be compromised; or
(b) any locally significant adverse effects on the qualities for which the area has been designated are clearly outweighed by social and economic benefits.

Policy NE2: Forestry, Woodland and Trees

Policy NE2A

The Council will support proposals which:

(a) deliver woodlands that meet local priorities as well as maximising benefits for the local economy, communities, sport and recreation and environment;
(b) protect existing trees, woodland, especially those with high natural, historic and cultural heritage value;
(c) seek to expand woodland cover in line with the guidance contained in the Perth and Kinross Forestry and Woodland Strategy;
(d) encourage the protection and good management of amenity trees, or groups of trees, important for amenity sport and recreation or because of their cultural or heritage interest;
(e) ensure the protection and good management of amenity trees, safeguard trees in Conservation Areas and trees on development sites in accordance with BS5837 "Trees in Relation to Construction";
(f) seek to secure establishment of new woodland in advance of major developments where practicable and secure new tree planting in line with the guidance contained in the Perth and Kinross Forestry and Woodland Strategy.

Policy NE2B

Tree surveys, undertaken by a competent person, should accompany all applications for planning permission where there are existing trees on a site. The scope and nature of such surveys will reflect the known or potential amenity, nature conservation and/or recreational value of the trees in question and should be agreed in advance with the council. The Council will follow the principles of the Scottish Government Policy on Woodland Removal. In accordance with that document, there will be a presumption in favour of protecting woodland resources except where the works proposed involve the

temporary removal of tree cover in a plantation, which is associated with clear felling and restocking. In exceptional cases where the loss of individual trees or woodland cover is unavoidable, the Council will require mitigation measures to be provided.

Note: The Council is preparing as Supplementary Guidance a Forestry and Woodland Strategy which will provide locational guidance and seeks to:

- promote multi-objective woodland management that delivers environmental, economic and social benefits;
- enhance the condition of existing woodland cover and expand them to develop habitat networks that complement the landscape character and other landuses;
- enhance landscapes through sensitive restructuring or removal of inappropriately sited and commercially unviable forest blocks;
- encourage sustainable forestry that contributes to adaptation and mitigation of a changing climate;
- enhance habitat connectivity both within and between river catchments using the most appropriate species and or land management options;
- conserves and expand riparian woodlands using appropriate species for the benefit of biodiversity and flood alleviation purposes;
- promote community participation in woodland planning and management;
- promote the value of trees and woodlands as a sustainable tourism asset.
- apply the guidance and advice in the Scottish Government's Control of Woodland Removal Policy when considering proposals for tree removal.
- To identify trees and woodlands in the Perth and Kinross area where nature conservation is of primary importance.

Policy NE3: Biodiversity

The Council will seek to protect and enhance all wildlife and wildlife habitats, whether formally designated/protected or not, taking into account the ecosystems and natural processes in the area.

The Council will apply the principles of the Tayside Biodiversity Partnership Planning Manual and will take account of the Tayside Local Biodiversity Action Plan (LBAP) and relevant national and European legislation relating to protected species when making decisions about applications for development.

Proposals that have a detrimental impact on the ability to achieve the guidelines and actions identified in these documents will not be supported unless clear evidence can be provided that the ecological impacts can be satisfactorily mitigated. In particular developers may be required to:

(a) ensure a detailed survey is undertaken by a qualified specialist where one or more protected or priority species is known or suspected. Large developments that will have an impact on the environment may require an Environmental Impact Assessment;
(b) demonstrate all adverse effects on species and habitats have been avoided wherever possible. A Landscape Plan may be required to demonstrate the impact of the development and how good design and site layout can enhance the existing biodiversity;
(c) include mitigation measures and implementation strategies where adverse effects are unavoidable;
(d) enter into a Planning Obligation or similar to secure the preparation and implementation of a suitable long-term management plan or a site Biodiversity Action Plan, together with long-term monitoring.

European Protected Species
Planning permission will not be granted for development that would, either individually or cumulatively, be likely to have an adverse effect upon European protected species (listed in Annex IV of the Habitats Directive (Directive 92/43/EEC)) unless the Council as Planning Authority is satisfied that:

(a) there is no satisfactory alternative, and
(b) the development is required for preserving public health or public safety or for other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.

In no circumstances can a development be approved which would be detrimental to the maintenance of the population of a European protected species at a favourable conservation status in its natural range.

Other protected species
Planning permission will not be granted for development that would be likely to have an adverse effect on protected species unless it can be justified in accordance with the relevant protected species legislation (Wildlife and Countryside Act 1981 (as amended) and the Protection of Badgers Act (1992.)

Note: Supplementary Guidance on biodiversity has been prepared for householder and developer as a guide to incorporating biodiversity into development.

Policy NE4: Green Infrastructure

The Council will require all new development to contribute to the creation, protection, enhancement and management of green infrastructure by the:

(a) incorporation of green infrastructure into new developments, particularly where it can be used to mitigate any negative environmental impact of the development and link green infrastructure to the wider green network;
(b) incorporation of high standards of environmental design;
(c) protection of the countryside from inappropriate development whilst supporting its positive use for agriculture, recreation, biodiversity, health, education and tourism;
(d) protection, enhancement and management of open spaces and linkages for active travel or recreation, including links between open spaces and the wider countryside and the provision of new connections where required;

3.2 Placemaking

3.2.1 Sustainable economic growth with high environmental quality is an important component in attracting investment into an area.

3.2.2 The sustainable development of Perth and Kinross requires the provision of services in appropriate locations to meet the increasing needs of the expanding population, resulting in the requirement to invest in new infrastructure to meet future needs. The following policies reinforce other policies within the Plan, and together these ensure that new development safeguards and enhances environmental quality, creating quality places and mitigating potential negative impacts.

3.2.3 Placemaking is now a term widely used to describe a comprehensive policy approach to the design, development, management and maintenance of the places in which we live to reflect local context. Central to the creation of sustainable communities is the desire to live in an attractive place which provides for our social, economic and environmental needs. Creating and maintaining sustainable communities are also key national and local policy objectives through Community Planning and Development Planning frameworks.

3.2.4 Fundamental to successful placemaking is an understanding of what makes places special, how places function and how best to involve those involved in the development industry such as architects, agents, developers and funders; as well as the communities themselves.

3.2.5 A local Placemaking Guide for Perth and Kinross was approved by the Council in November 2009 for the design, management and maintenance of public spaces, buildings, roads and new development. The Guides will be supported by the development and subsequent approval of SG to be used in determining planning applications.

Policy PM1: Placemaking

Policy PM1A

Development must contribute positively, to the quality of the surrounding built and natural environment. All development should be planned and designed with reference to climate change, mitigation and adaptation.

The design, density and siting of development should respect the character and amenity of the place, and should create and improve links within and, where practical, beyond the site. Proposals should also incorporate new landscape and planting works appropriate to the local context and the scale and nature of the development.

Policy PM1B

All proposals should meet all the following placemaking criteria:

(a) Create a sense of identity by developing a coherent structure of streets, spaces, and buildings, safely accessible from its surroundings.
(b) Consider and respect site topography and any surrounding important landmarks, views or skylines, as well as the wider landscape character of the area.
(c) The design and density should complement its surroundings in terms of appearance, height, scale, massing, materials, finishes and colours.
(d) Respect an existing building line where appropriate, or establish one where none exists. Access, uses, and orientation of principal elevations should reinforce the street or open space.
(e) All buildings, streets, and spaces (including green spaces) should create safe, accessible, inclusive places for people, which are easily navigable, particularly on foot, bicycle and public transport.
(f) Buildings and spaces should be designed with future adaptability in mind wherever possible.
(g) Existing buildings, structures and natural features that contribute to the local townscape should be retained and sensitively integrated into proposals.
(h) Incorporate green infrastructure into new developments and make connections where possible to green networks.

TCP/11/16(534) – 18/00495/IPL – Residential development (in principle) on land 80 metres south west of Ardtigh, Caledonian Crescent, Gleneagles

PLANNING DECISION NOTICE

REPORT OF HANDLING

REFERENCE DOCUMENTS *(included in applicant's submission, see pages 317-402)*

PERTH AND KINROSS COUNCIL

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35 Kinnoull Street
PERTH
PH1 5GD

Date 4th May 2018

TOWN AND COUNTRY PLANNING (SCOTLAND) ACT

Application Number: **18/00495/IPL**

I am directed by the Planning Authority under the Town and Country Planning (Scotland) Acts currently in force, to refuse your application registered on 28th March 2018 for permission for **Residential development (in principle) Land 80 Metres South West Of Ardtigh Caledonian Crescent Gleneagles** for the reasons undernoted.

Interim Development Quality Manager

Reasons for Refusal

1 The proposal is contrary to the Scottish Government's Policy on Woodland Removal, as well as policy NE2A and NE2B of the Perth and Kinross Local Development Plan 2014 as the extent of tree felling on site associated with the formation of the access has not been quantified, accordingly the acceptability of the removal cannot be assessed.

2. The proposal is contrary to Policy PM1A and PM1B of the Perth and Kinross Local Development Plan 2014 as it has not been demonstrated how the access arrangement to the site relates to the woodland resource on the site to ensure the development contributes positively to the surrounding built and natural environment and that natural features are retained and sensitively integrated into the proposal.

3. The proposal is contrary to Policy NE3 of the Perth and Kinross Local Development Plan 2014, as no survey information has been provided for the demolition of the dwellinghouse. Accordingly the ecological impact of the development cannot be ascertained and it cannot be shown that any impact can be satisfactorily mitigated to ensure the protection of wildlife and wildlife habitats.

Justification

The proposal is not in accordance with the Development Plan and there are no material reasons which justify departing from the Development Plan

Notes

The plans relating to this decision are listed below and are displayed on Perth and Kinross Council's website at www.pkc.gov.uk "Online Planning Applications" page

Plan Reference

18/00495/1

18/00495/2

18/00495/3

18/00495/4

18/00495/5

18/00495/6

18/00495/7

REPORT OF HANDLING

DELEGATED REPORT

Ref No	**18/00495/IPL**	
Ward No	**P7- Strathallan**	
Due Determination Date	**27.05.2018**	
Case Officer	**John Russell**	
Report Issued by		**Date**
Countersigned by		**Date**

PROPOSAL: Residential development (in principle)

LOCATION: Land 80 Metres South West Of Ardtigh Caledonian Crescent Gleneagles

SUMMARY:

This report recommends **refusal** of the application as the development is considered to be contrary to the relevant provisions of the Development Plan and there are no material considerations apparent which justify setting aside the Development Plan.

DATE OF SITE VISIT: 30 April 2018

SITE PHOTOGRAPHS




BACKGROUND AND DESCRIPTION OF PROPOSAL

Birchfield is a detached dwellinghouse on Caledonian Crescent in the established village of Gleneagles which is on the fringe of Auchterarder. The village has a population of approximately 300 people. The settlement plays an important role in the provision of low density residential development in a very high quality landscape framework. Tourism also plays an important role in the settlement and is a major provider of employment opportunities, particularly at The Gleneagles Hotel, which is specifically identified for its contribution to the provision of visitor accommodation in the Local Development Plan.

Birchfiled is set in extensive garden grounds enclosed by woodland to the North and South of the site. The woodland to the north sits along Caledonian Crescent while the woodland to the south is adjacent to the Gleneagles Historic Garden and Designed Landscape and the Gleneagles Hotel golf course.

The proposal is for the formation of residential development in principle. The submitted plans show the formation of two plots and their associated accesses. It has been confirmed that the existing house will be demolished to accommodate the development of the two plots. Plot 1 as delineated on the proposed site plan would be some 2707sqm in area while Plot 2 would be 3332sqm in area.

SITE HISTORY

17/01968/IPL Residential development (in principle) 16 January 2018 Application Withdrawn

PRE-APPLICATION CONSULTATION

Pre application Reference: Discussions undertaken as part of previous application.

NATIONAL POLICY AND GUIDANCE

The Scottish Government expresses its planning policies through The National Planning Framework, the Scottish Planning Policy (SPP), Planning Advice Notes (PAN), Creating Places, Designing Streets, National Roads Development Guide and a series of Circulars.

DEVELOPMENT PLAN

The Development Plan for the area comprises the TAYplan Strategic Development Plan 2016-2036 and the Perth and Kinross Local Development Plan 2014.

TAYplan Strategic Development Plan 2016 – 2036 - Approved October 2017

Whilst there are no specific policies or strategies directly relevant to this proposal the overall vision of the TAYplan should be noted. The vision states *"By 2036 the TAYplan area will be sustainable, more attractive, competitive and vibrant without creating an unacceptable burden on our planet. The quality of life will make it a place of first choice where more people choose to live, work, study and visit, and where businesses choose to invest and create jobs."*

Perth and Kinross Local Development Plan 2014 – Adopted February 2014

The Local Development Plan is the most recent statement of Council policy and is augmented by Supplementary Guidance.

The principal policies are, in summary:

Policy PM1A - Placemaking
Development must contribute positively to the quality of the surrounding built and natural environment, respecting the character and amenity of the place. All development should be planned and designed with reference to climate change mitigation and adaption.

Policy PM1B - Placemaking
All proposals should meet all eight of the placemaking criteria.

Policy PM3 - Infrastructure Contributions
Where new developments (either alone or cumulatively) exacerbate a current or generate a need for additional infrastructure provision or community facilities, planning permission will only be granted where contributions which are reasonably related to the scale and nature of the proposed development are secured.

Policy PM4 - Settlement Boundaries
For settlements which are defined by a settlement boundary in the Plan, development will not be permitted, except within the defined settlement boundary.

Policy RD1 - Residential Areas
In identified areas, residential amenity will be protected and, where possible, improved. Small areas of private and public open space will be retained where they are of recreational or amenity value. Changes of use away from ancillary uses such as local shops will be resisted unless supported by market evidence that the existing use is non-viable. Proposals will be encouraged where they satisfy the criteria set out and are compatible with the amenity and character of an area.

Policy TA1B - Transport Standards and Accessibility Requirements
Development proposals that involve significant travel generation should be well served by all modes of transport (in particular walking, cycling and public

transport), provide safe access and appropriate car parking. Supplementary Guidance will set out when a travel plan and transport assessment is required.

Policy HE4 - Gardens and Designed Landscapes
The integrity of sites included on the Inventory of Gardens and Designated Landscapes will be protected and enhanced.

Policy NE2A - Forestry, Woodland and Trees
Support will be given to proposals which meet the six criteria in particular where forests, woodland and trees are protected, where woodland areas are expanded and where new areas of woodland are delivered, securing establishment in advance of major development where practicable.

Policy NE2B - Forestry, Woodland and Trees
Where there are existing trees on a development site, any application should be accompanied by a tree survey. There is a presumption in favour of protecting woodland resources. In exceptional circumstances where the loss of individual trees or woodland cover is unavoidable, mitigation measures will be required.

Policy NE3 - Biodiversity
All wildlife and wildlife habitats, whether formally designated or not should be protected and enhanced in accordance with the criteria set out. Planning permission will not be granted for development likely to have an adverse effect on protected species.

Policy EP3B - Water, Environment and Drainage
Foul drainage from all developments within and close to settlement envelopes that have public sewerage systems will require connection to the public sewer. A private system will only be considered as a temporary measure or where there is little or no public sewerage system and it does not have an adverse effect on the natural and built environment, surrounding uses and the amenity of the area.

Policy EP3C - Water, Environment and Drainage
All new developments will be required to employ Sustainable Urban Drainage Systems (SUDS) measures.

OTHER POLICIES

Development Contributions:-

Sets out the Council's Policy for securing contributions from developers of new homes towards the cost of meeting appropriate infrastructure improvements necessary as a consequence of development.

CONSULTATION RESPONSES

Perth and Kinross Area Archaeologist – No objection.

Historic Environment Scotland – No response to date.

Environmental Health – No response to date but an informative re contaminated land was recommended on the earlier withdrawn application.

Transport Planning – No objection subject to conditional control.

Scottish Water – No objection.

Contributions Officer – No objection subject to conditional control.

REPRESENTATIONS

The following points were raised in the 1 representation received:

- Traffic safety concerns.
- The demolition of the house.
- The proposal will result in the further sub-division in the crescent.
- Concerns with disposal of surface water and impact on private sewage system.

ADDITIONAL INFORMATION RECEIVED:

Environmental Impact Assessment (EIA)	Not Required
Screening Opinion	Not Required
EIA Report	Not Required
Appropriate Assessment	Not Required
Design Statement or Design and Access Statement	Not Required
Report on Impact or Potential Impact eg Flood Risk Assessment	Required

APPRAISAL

Sections 25 and 37 (2) of the Town and Country Planning (Scotland) Act 1997 require that planning decisions be made in accordance with the development plan unless material considerations indicate otherwise. The Development Plan for the area comprises the approved TAYplan 2016 and the adopted Perth and Kinross Local Development Plan 2014.

The determining issues in this case are whether; the proposal complies with development plan policy; or if there are any other material considerations which justify a departure from policy.

Policy Appraisal

The site is located within the Gleneagles settlement boundary where Policy RD1 of the adopted Local Development Plan 2014 applies. This recognises that residential development within existing settlements can often make a useful contribution to the supply of housing land, but acknowledges the potential conflicts new development can have within the existing built environment. Proposals will be encouraged where they satisfy the criteria set out in the policy in particular criteria a) Infill residential development at a density which represents the most efficient use of the site while respecting its environs and c) proposals which will improve the character and environment of the area. In addition the policy seeks to retain areas of private and public open space where they are of recreational or amenity value.

Policies PM1A and PM1B are also of relevance. These policies require proposals to contribute positively to the surrounding built and natural environment and to respect the character and amenity of the place. Policy NE3 requires biodiversity to be taken into account while NE2 A seeks to protect trees and woodland.

For reasons set out elsewhere in this report it is considered that this proposal is contrary to Policies NE3, NE2A PM1A and PM1B of the adopted Perth and Kinross Local Development Plan 2014.

Landscape

Section 159 of the Planning Act imposes a general duty on the Planning Authority to include appropriate provision for preservation and planting of trees. Local Plan Policy NE2B also seeks the submission of a tree survey where there are existing trees on a development site with NE2A protecting trees.

The earlier application on this site was withdrawn to allow further supporting information to be submitted. A tree survey and tree constraints plan has been submitted in support of the application although confusingly a further indicative tree survey plan has been submitted with the application see 18/00495/6.

My assessment focuses on the tree position plan undertaken by Adam Reidi. This plan positions the trees within the Birchfield curtilage, categorises them and provides their crown spread and Root Protection Area. However, the tree plan does not identify or quantify the extent of tree removal required to accommodate the new access to plot 1. While I note the quality of the trees along this area are categorised as ‘C’ I consider the tree grouping along this frontage does make a positive contribution to the amenity of the area thus the removal of the trees warrants clarification. It is disappointing that this has not been included as the need for clarity on tree removal was highlighted in the e-mail dated the 09 January 2018 associated with the earlier withdrawn application.

As it stands the proposal at this stage does not fulfil the requirements of Policy NE2A and NE2B.

It is worth noting that the group of trees to the south of the site make a contribution to the landscape setting of the Historic Garden and Designed Landscape. Retaining the majority of these trees along this boundary will ensure that the setting of the Historic Garden and Designed Landscape is maintained, see Policy HE4.

Bio-diversity

The development plan framework contains a number of policies that seek to protect important species and sites designated for their natural heritage interest and to ensure that proposals that may affect them are properly assessed. Policy 3: Managing TAYplan's Assets seeks to respect the regional distinctiveness and scenic value and presumes against development which would adversely affect environmental assets. Policy NE3 Biodiversity confirms that protection should apply to all wildlife and wildlife habitats, whether formally designated or not.

During the earlier application the need for survey work to enable an assessment against policy NE3 was highlighted in an e-mail dated the 09 January 2018 to the agent.

> *As discussed on the phone there is a requirement to take account of protected species, policy NE3. I require this information upfront so I can fully assess the acceptability of this proposal as part of this application. The survey work should focus on red squirrels and bats. This survey work may dictate the positioning of access into the site as well as possible mitigation. The survey work would need to extend to the existing dwelling if you intend to demolish this structure.*

Survey work has focused on the trees and garden. There is no assessment associated with the potential for bats to be present within the building to be demolished. A full assessment cannot be undertaken and applying the precautionary principle the application is contrary to Policy NE3.

As noted under the landscape heading there is a requirement to understand the full extent of tree removal to accommodate the access. The extent of tree removal throughout the application site also has to be fully ascertained to enable a meaningful assessment against the protected species survey work undertaken to date (there may be further survey work required for example tree 0610).

Residential Amenity

Privacy and Overlooking.

It has now been clarified that the existing dwelling will be demolished with the plot sub-division running through the Birchfiled dwelling. My assessment does not need to assess the relationship of the Birchfiled dwelling and plot 1.

Nevertheless the formation of plots within the urban environment has the potential to result in overlooking and overshadowing to neighbouring dwellings and garden ground. There is a need to secure privacy for all the parties to the development those who would live in the new dwellings and those that live in adjoining dwellings. Planning control has a duty to future occupiers not to create situations of potential conflict between neighbours.

I consider the proposed plots can accommodate dwellings without resulting in an unacceptable level of overlooking based on the sub-division in the site plan. The final layout, scale and positioning of the dwellinghouses would be conditioned to allow further assessment through the matters specified by condition application or detailed applications.

Overshadowing

Although not a matter specifically referred to in ministerial guidance, the protection of neighbouring developments from unreasonable loss of light is a well established proper planning consideration as confirmed in *Multi-Media Productions v S.O.S. & lslington L.B. 27/5/88.* The Building Research Establishment (BRE) document 'Site Layout Planning for Daylight and Sunlight-a guide to good practice 1991' sets out guidelines on how to assess the potential impact, it should be noted that the standards are not mandatory and should be interpreted flexibly.

Having had the opportunity to assess the plans the plots are extensive (Plot 1 some 2707sqm in area, Plot 2 3332 sqm in area).

I consider dwellings could be positioned to ensure a reasonable level of daylight and sunlight is maintained to neighbouring properties and neighbouring plots. This matter would be looked at in greater detail once a detailed scheme is submitted.

Private amenity space

The extent in which private amenity space is used relates specifically to the dwellings occupant. It is therefore particularly difficult to forecast the extent of garden ground required and ultimately overtime this will change with any new inhabitant. Nevertheless it is important to seek an outside area that can perform the minimum to be expected of a garden i.e. clothes drying, dustbin storage and sitting out.

In this regard I consider that an adequate level of private amenity space for the plots can be achieved to cater for the recreational and privacy needs of the proposed dwellings occupants both present and future.

Roads and Access

The road safety concerns have been raised in the representation received.

The Council's Transport Planning Section have been consulted on the application who have highlighted they have no objection subject to conditional control in the interest of pedestrian and traffic safety. There is no conflict with Policy TA1B.

Drainage and Flooding

I note that representation raises concern with the drainage arrangements in the area. The applicant has confirmed that the foul drainage will be connected to the sewer and a condition can be imposed to ensure this connection is achieved. A developer would need to secure a connection from Scottish Water and if there is a capacity problem this is a matter between the developer and network operator to resolve prior to development proceeding on the site.

The site is not in an area subject to river flooding or surface water flooding on the SEPA flood maps. Disposal of surface water should be via a sustainable urban drainage system and this would need to be incorporated into the site layout to comply with policy EP3C. Given the size of both plots I consider this could be achieved by conditional control.

Design and Layout

The site requires to be assessed against the 'Placemaking' policies of the adopted local plan.

Taking account of the discussions under the landscape heading there is a further requirement to ascertain how the access arrangement to the site relates to the woodland resource on the site.

As a consequence the lack of information on this issue means there is a conflict with Policy PM1A which requires development to contribute positively to the quality of the surrounding built and natural environment and Policy PM1B which requires natural features that contribute to the local townscape to be retained and sensitively integrated into proposals.

Developer Contributions

<u>Primary Education:-</u>

The Council Developer Contributions Supplementary Guidance requires a financial contribution towards increased primary school capacity in areas

where a primary school capacity constraint has been identified. A capacity constraint is defined as where a primary school is operating, or likely to be operating following completion of the proposed development and extant planning permissions, at or above 80% of total capacity.

This proposal is within the catchment of Community School of Auchterarder Primary School. Conditional control is recommended to ascertain whether there is a constraint when detailed proposals come forward for the site, this would only apply to the additional plot.

Auchterarder A9 Junction:-

The Council Developer Contributions Supplementary Guidance requires contributions from developments within the Auchterarder and wider Strathearn housing market area towards meeting the cost of delivering the A9 junction improvements which are required in the interests of safety. The application falls within the identified A9 Junction Supplementary Guidance boundary and a contribution towards the Auchterarder A9 Junction Improvements would be required for the additional plot once a detailed application is submitted. Conditional control can be applied to secure this matter.

Economic Impact

The economic impact of the proposal is likely to be minimal and limited to the construction phase of the development.

Conclusion

In conclusion, the application must be determined in accordance with the adopted Development Plan unless material considerations indicate otherwise. In this respect, the proposal is not considered to comply with the approved TAYplan 2016 and the adopted Local Development Plan 2014. I have taken account of material considerations and find none that would justify overriding the adopted Development Plan. On that basis the application is recommended for refusal.

APPLICATION PROCESSING TIME

The recommendation for this application has been made within the statutory determination period.

LEGAL AGREEMENTS

None required.

DIRECTION BY SCOTTISH MINISTERS

None applicable to this proposal.

RECOMMENDATION

Refuse the application

Reasons for Recommendation

1 The proposal is contrary to the Scottish Government's Policy on Woodland Removal, as well as policy NE2A and NE2B of the Perth and Kinross Local Development Plan 2014 as the extent of tree felling on site associated with the formation of the access has not been quantified, accordingly the acceptability of the removal cannot be assessed.

2 The proposal is contrary to Policy PM1A and PM1B of the Perth and Kinross Local Development Plan 2014 as it has not been demonstrated how the access arrangement to the site relates to the woodland resource on the site to ensure the development contributes positively to the surrounding built and natural environment and that natural features are retained and sensitively integrated into the proposal.

3 The proposal is contrary to Policy NE3 of the Perth and Kinross Local Development Plan 2014, as no survey information has been provided for the demolition of the dwellinghouse. Accordingly the ecological impact of the development cannot be ascertained and it cannot be shown that any impact can be satisfactorily mitigated to ensure the protection of wildlife and wildlife habitats.

Justification

The proposal is not in accordance with the Development Plan and there are no material reasons which justify departing from the Development Plan

Informatives

None

Procedural Notes

Not Applicable.

PLANS AND DOCUMENTS RELATING TO THIS DECISION

18/00495/1

18/00495/2

18/00495/3

18/00495/4

18/00495/5

18/00495/6

18/00495/7

Date of Report 02.05.2018

TCP/11/16(534) – 18/00495/IPL – Residential development (in principle) on land 80 metres south west of Ardtigh, Caledonian Crescent, Gleneagles

REPRESENTATIONS

03/04/2018

Perth & Kinross Council
Pullar House 35 Kinnoull Street
Perth
PH1 5GD

Development Operations
The Bridge
Buchanan Gate Business Park
Cumbernauld Road
Stepps
Glasgow
G33 6FB

Development Operations
Freephone Number - 0800 3890379
E-Mail - DevelopmentOperations@scottishwater.co.uk
www.scottishwater.co.uk

Dear Local Planner

PH3 Gleneagles Caledonian Crescent Birchfield
PLANNING APPLICATION NUMBER: 18/00495/IPL
OUR REFERENCE: 759152
PROPOSAL: Residential development (in principle)

Please quote our reference in all future correspondence

Scottish Water has no objection to this planning application; however, the applicant should be aware that this does not confirm that the proposed development can currently be serviced and would advise the following:

Water

- There is currently sufficient capacity in the Turret Water Treatment Works. However, please note that further investigations may be required to be carried out once a formal application has been submitted to us.

Foul

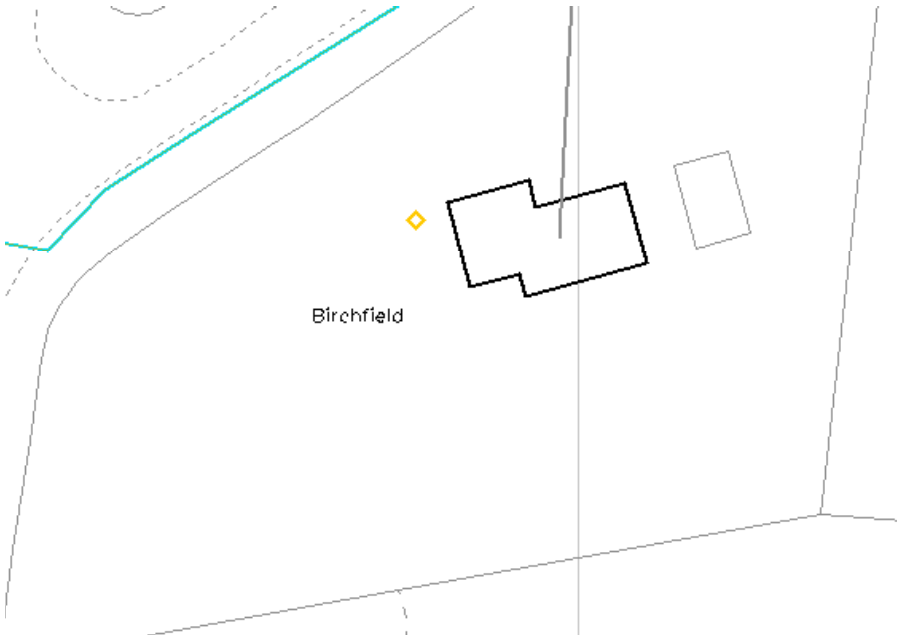
- Unfortunately, according to our records there is no public Scottish Water, Waste Water infrastructure within the vicinity of this proposed development therefore we would advise applicant to investigate private treatment options.

The applicant should be aware that we are unable to reserve capacity at our water and/or waste water treatment works for their proposed development. Once a formal connection application is submitted to Scottish Water after full planning permission

has been granted, we will review the availability of capacity at that time and advise the applicant accordingly.

Infrastructure within boundary

According to our records, the development proposals impact on existing Scottish Water assets.



I can confirm that I have made our Asset Impact Team aware of this proposed development however the applicant will be required to contact them directly at service.relocation@scottishwater.co.uk.

The applicant should be aware that any conflict with assets identified may be subject to restrictions on proximity of construction.

Scottish Water Disclaimer

"It is important to note that the information on any such plan provided on Scottish Water's infrastructure, is for indicative purposes only and its accuracy cannot be relied upon. When the exact location and the nature of the infrastructure on the plan is a material requirement then you should undertake an appropriate site investigation to confirm its actual position in the ground and to determine if it is suitable for its intended purpose. By using the plan you agree that Scottish Water will not be liable for any loss, damage or costs caused by relying upon it or from carrying out any such site investigation."

Surface Water

For reasons of sustainability and to protect our customers from potential future sewer flooding, Scottish Water will not normally accept any surface water connections into our combined sewer system.

There may be limited exceptional circumstances where we would allow such a connection for brownfield sites only, however this will require significant justification from the customer taking account of various factors including legal, physical, and technical challenges.

In order to avoid costs and delays where a surface water discharge to our combined sewer system is anticipated, the developer should contact Scottish Water at the earliest opportunity with strong evidence to support the intended drainage plan prior to making a connection request. We will assess this evidence in a robust manner and provide a decision that reflects the best option from environmental and customer perspectives.

General notes:

- **Scottish Water asset plans can be obtained from our appointed asset plan providers:**

  Site Investigation Services (UK) Ltd
  Tel: 0333 123 1223
  Email: sw@sisplan.co.uk
  www.sisplan.co.uk

- Scottish Water's current minimum level of service for water pressure is 1.0 bar or 10m head at the customer's boundary internal outlet. Any property which cannot be adequately serviced from the available pressure may require private pumping arrangements to be installed, subject to compliance with Water Byelaws. If the developer wishes to enquire about Scottish Water's procedure for checking the water pressure in the area then they should write to the Customer Connections department at the above address.

- If the connection to the public sewer and/or water main requires to be laid through land out-with public ownership, the developer must provide evidence of formal approval from the affected landowner(s) by way of a deed of servitude.

- Scottish Water may only vest new water or waste water infrastructure which is to be laid through land out with public ownership where a Deed of Servitude has been obtained in our favour by the developer.

- The developer should also be aware that Scottish Water requires land title to the area of land where a pumping station and/or SUDS proposed to vest in Scottish Water is constructed.

- **Please find all of our application forms on our website at the following link https://www.scottishwater.co.uk/business/connections/connecting-your-property/new-development-process-and-applications-forms**

Next Steps:

- **Single Property/Less than 10 dwellings**

  For developments of less than 10 domestic dwellings (or non-domestic equivalent) we will require a formal technical application to be submitted directly to Scottish Water or via the chosen Licensed Provider if non domestic, once full planning permission has been granted. Please note in some instances we will require a Pre-Development Enquiry Form to be submitted (for example rural location which are deemed to have a significant impact on our infrastructure) however we will make you aware of this if required.

- **10 or more domestic dwellings:**

  For developments of 10 or more domestic dwellings (or non-domestic equivalent) we require a Pre-Development Enquiry (PDE) Form to be submitted directly to Scottish Water prior to any formal Technical Application being submitted. This will allow us to fully appraise the proposals.

  Where it is confirmed through the PDE process that mitigation works are necessary to support a development, the cost of these works is to be met by the developer, which Scottish Water can contribute towards through Reasonable Cost Contribution regulations.

- **Non Domestic/Commercial Property:**
  Since the introduction of the Water Services (Scotland) Act 2005 in April 2008 the water industry in Scotland has opened up to market competition for non-domestic customers. All Non-domestic Household customers now require a Licensed Provider to act on their behalf for new water and waste water connections. Further details can be obtained at www.scotlandontap.gov.uk

- **Trade Effluent Discharge from Non Dom Property:**
  Certain discharges from non-domestic premises may constitute a trade effluent in terms of the Sewerage (Scotland) Act 1968. Trade effluent arises from activities including; manufacturing, production and engineering; vehicle, plant and equipment washing, waste and leachate management. It covers both large and small premises, including activities such as car washing and launderettes. Activities not covered include hotels, caravan sites or restaurants.

  If you are in any doubt as to whether or not the discharge from your premises is likely to be considered to be trade effluent, please contact us on 0800 778 0778 or email TEQ@scottishwater.co.uk using the subject "Is this Trade Effluent?". Discharges that are deemed to be trade effluent need to apply separately for permission to discharge to the sewerage system. The forms and application guidance notes can be found using the following link https://www.scottishwater.co.uk/business/our-services/compliance/trade-effluent/trade-effluent-documents/trade-effluent-notice-form-h

  Trade effluent must never be discharged into surface water drainage systems as these are solely for draining rainfall run off.

For food services establishments, Scottish Water recommends a suitably sized grease trap is fitted within the food preparation areas so the development complies with Standard 3.7 a) of the Building Standards Technical Handbook and for best management and housekeeping practices to be followed which prevent food waste, fat oil and grease from being disposed into sinks and drains.

The Waste (Scotland) Regulations which require all non-rural food businesses, producing more than 50kg of food waste per week, to segregate that waste for separate collection. The regulations also ban the use of food waste disposal units that dispose of food waste to the public sewer. Further information can be found at www.resourceefficientscotland.com

If the applicant requires any further assistance or information, please contact our Development Operations Central Support Team on 0800 389 0379 or at planningconsultations@scottishwater.co.uk.
.

Yours sincerely

Angela Allison
Angela.Allison@scottishwater.co.uk

[redacted]

Ardtigh,
Gleneagles,
Auchterarder,
Perthshire PH3 1NG

Perth and Kinross Council,
Planning and Development,
Development and Quality Manager,
Pullar House,
35 Kinnoul Street,
Perth PHI 5GD.

10th April 2018.

RECEIVED
12 APR 2018

Planning Application Reference I8/00495/IPL

Dear Sir,

I am writing to complain about the above planning application On the following points.

I. The New Entrance to the new site constitutes a Traffic Hazard especially for Traffic comming into Caledonian Crescent from the direction of the Muirton and Crieff on the A823.

2. the inevitable Demolition of the Existing House as it crosses the boundary of the new plot.

3. This application will open the Floodgates to further subdivision in the Crescent.

[redacted]

Ardtigh,
Gleneagles,
Auchterarder,
Perthshire PH3 1NG

4. It is unclear where surface water from the new plot would be drained to, as any additional discharge into the Private Sewage will cause further problems at times of heavey rain. This is already a problem further down the crescent.

Yours Faithfully,

[redacted]

R.D. Grey-Wilson.

Comments to the Development Quality Manager on a Planning Application

Planning Application ref.	18/00495/IPL	**Comments provided by**	Euan McLaughlin
Service/Section	Strategy & Policy	**Contact Details**	**Development Negotiations Officer:** Euan McLaughlin [redacted]
Description of Proposal	Residential development (in principle)		
Address of site	Land 80 Metres South West Of Ardtigh, Gleneagles		
Comments on the proposal	**Primary Education** With reference to the above planning application the Council Developer Contributions Supplementary Guidance requires a financial contribution towards increased primary school capacity in areas where a primary school capacity constraint has been identified. A capacity constraint is defined as where a primary school is operating, or likely to be operating following completion of the proposed development and extant planning permissions, at or above 80% of total capacity. This proposal is within the catchment of Community School of Auchterarder Primary School. **Auchterarder A9 Junction** With reference to the above planning application the Council Developer Contributions Supplementary Guidance requires contributions from developments within the Auchterarder and wider Strathearn housing market area towards meeting the cost of delivering the A9 junction improvements which are required in the interests of safety. The application falls within the identified A9 Junction Supplementary Guidance boundary and a condition to reflect this should be attached to any planning application granted.		
Recommended planning condition(s)	**Primary Education** **CO01** The development shall be in accordance with the requirements of Perth & Kinross Council's Developer Contributions and Affordable Housing Supplementary Guidance 2016 in line with Policy PM3: Infrastructure Contributions of the Perth & Kinross Local Development Plan 2014 with particular regard to primary education infrastructure or such replacement Guidance and Policy which may replace these. **RCO00** Reason – To ensure that the development approved makes a contribution towards increasing primary school provision, in accordance with Development Plan Policy and Supplementary Guidance.		

	Auchterarder A9 Junction **CO03** The development shall be in accordance with the requirements of Perth & Kinross Council's Developer Contributions and Affordable Housing Supplementary Guidance 2016 in line with Policy PM3: Infrastructure Contributions of the Perth & Kinross Local Development Plan 2014 with particular regard to Auchterarder A9 Junction Improvements or such replacement Guidance and Policy which may replace these. **RCO00** Reason – To ensure that the development approved makes a contribution towards the Auchterarder A9 Junction Improvements, in accordance with Development Plan Policy and Supplementary Guidance.
Recommended informative(s) for applicant	N/A
Date comments returned	11 April 2018

Comments to the Development Quality Manager on a Planning Application

Planning Application ref.	18/00495/IPL	**Comments provided by**	Dean Salman Development Engineer
Service/Section	Transport Planning	**Contact Details**	[redacted]
Description of Proposal	Residential development (in principle)		
Address of site	Birchfield, Caledonian Crescent, Gleneagles, Auchterarder, PH3 1NG		
Comments on the proposal	Insofar as the Roads matters are concerned I have no objections to this proposal on the following condition.		
Recommended planning condition(s)	Prior to the occupation and use of the approved development all matters regarding access, car parking, public transport facilities, walking and cycling facilities, the road layout, design and specification (including the disposal of surface water) shall be in accordance with the standards required by the Council as Roads Authority (as detailed in the National Roads Development Guide) and to the satisfaction of the Planning Authority.		
Recommended informative(s) for applicant			
Date comments returned	17 April 2018		

To:	John Russell, Planning Officer
From:	Sophie Nicol, Historic Environment Manager
Tel:	[redacted]
Email:	[redacted]
Date:	23rd April 2018

18/00495/IPL | Residential development (in principle) | Land 80 Metres South West Of Ardtigh Gleneagles

Thank you for consulting PKHT on the above application.

In respect to archaeology and the planning process, as outlined by Scottish Planning Policy, the proposed development does not raise any significant issues. No archaeological mitigation is required in this instance.