

# ***ARBORICULTURAL IMPACT ASSESSMENT***

## **PROPOSED COMMERCIAL DEVELOPMENT – TOR HILL WORKS, CONSTITUTION HILL, WELLS, SOMERSET, BA5 3NT**



August 2023

## **Arboricultural Impact Assessment**

### **Introduction**

This report has been prepared by Clark Landscape Design in liaison with Hill Reading Architects to prepare a tree report to meet the requirements of the planning authority.

### **Purpose of the Report**

This report is intended to respond to comments received as part of the planning application, 2021/1703/FUL, relating to the proposed commercial development on land at Tor Hill Works, Constitution Hill, Wells, Somerset, BA5 3NT. This document has been produced to demonstrate that the implications of the proposed development in relation to the arboricultural, landscape and cultural (conservation) value of the trees and hedgerows on the site have been fully considered during the detailed design process and should be read alongside the proposed masterplan.

This report, and the accompanying information, is supplied in order to:

- Identify trees and hedgerows to be retained and requiring protection during the preparation and construction phase of the project.
- Provide an Arboricultural Method Statement for the recommended works related to trees to be retained during and after the development.

### **Limitations**

This is a preliminary assessment from ground level and observations have been made solely from visual inspection for the purposes of assessment in terms relevant to planning and development. Only binoculars, where appropriate, have been used to aid tree assessment. No invasive or other detailed internal decay detection devices have been used in assessing trunk condition.

The conclusions relate to conditions found at the time of inspection.

It should be noted that this survey is not a tree safety inspection. It is carried out in order to inform the planning process.

### **Site Visit and Tree Assessment Methodology**

The site visit was undertaken on 4<sup>th</sup> August 2023 by Ian Clark CMLI. The inspection took place from ground level.

The survey took into consideration potential arboricultural constraints identified on site and trees within and on the site boundary, as well as those near to the boundary, where roots or aerial parts may infringe the site.

Weather conditions were sunny but with some cloud cover.

## Data Collection

Data collected includes: designated tree number, categorisation and tree species. All measurements are metric.

## Presentation of the Data Collected

Trees have been allocated an individual or group tree number. This tree number is used to identify individual trees and/or groups of trees throughout this report, within the Tree Schedule and on all Plans presented in the appendices of this report. Trees have not been identified on site with individual tags in this instance.

## Site Description

The Serious Stages site lies to the east of Wells off the B3139. It lies within an old quarry site of which the area of newly constructed bunding and the storage yard lies within the north-west part of the site.

The area is bounded by woodland to the south, north and west and by sloping ground to the east. The new bunding defines the western boundary of the site removing from view the storage areas and also providing security from the storage areas of public access from the nearby public footpaths.



*View looking south to the temporary storage close to the Beech, T4.*





*View looking south-west along the access track towards the storage area with the two Oak trees, T7 and T8, in the near middle ground.*



*The western boundary embankment showing some new tree planting.*





*View looking west along the public footpath with the embankment on the left of the photograph.*

### Arboricultural Constraints

An assessment of the trees surveyed are presented in the Tree Schedules in Appendix 4 and considered in the main body of the report below. The Root Protection Areas (RPAs) are indicated for the individual trees and groups of trees identified in the Tree Schedule. The RPA represents the minimum radius in metres which ideally, should be left undisturbed around each tree, group of trees or hedgerow were it to be retained. The RPA has been calculated in accordance with Section 4.6 of BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.



## **Tree Assessment**

None of the trees within the site are protected by Tree Preservation Order or within a Conservation Area.

The site is used for the storage of stage construction and other materials and has been surfaced with Type 2 scalplings throughout. Trees within the site are generally unprotected from the compaction of storage materials or their movement. The trees and shrubs along the north-western boundary bank are in a similar situation with storage materials close to or within their RPAs.

The trees are generally in reasonable to poor condition and are assessed as being 'C' category trees. The Oak tree, T1, is assessed as being a 'B' category tree although it is showing some signs of stress from the compaction of storage materials. The Oak tree, T3, is in very poor condition and it is recommended that it is felled.

Most of the trees are showing some signs of stress and have generally been left unmanaged for a number of years. The recommendation is that before any site works are carried out a schedule of tree works is undertaken to improve their structure and longer term health.

There is scope for replanting along the western boundary with Hazel planted at 3m centres. On the sides of the banks and with trees, such as Field Maple, along the top of the bank.

## **Tree Officer – Consultation Response**

The Council's Tree Officer had several concerns with the proposals, see Appendix 1. The first is that there should be a Tree Survey, Arboricultural Impact Assessment, Tree Constraints Plan and Tree Protection Plan which this report now addresses. The other concern is that there should be a mitigation plan to show a net gain in biodiversity as per NPPF (2021). This report recommends landscape mitigation measures, see above:

*There is scope for replanting along the western boundary with Hazel planted at 3m centres. On the sides of the banks and with trees, such as Field Maple, along the top of the bank.*

If this is acceptable in principle a detailed landscape plan can be produce and planted out this coming Winter 2023/24.

## **Trees Identified for Retention and Removal**

It is proposed to retain all the trees on the site other than T3 which is recommended to be felled. To avoid future conflicts between the storage of materials and RPAs it is proposed to maintain a 5m landscape buffer along the eastern side of the north-western bank. Trees within the main storage areas should have their RPAs protected through permanent post and sheep netting fencing to avoid any future damage to their branches or RPAs.

## **Tree Protection**

The trees and hedgerows to be retained on site during and after development as listed above could require both above and below ground protection. Above ground protection may involve remedial tree surgery works. This may include access facilitation pruning (where a tree crown or hedgerow

overhangs the appropriate RPA) or pruning works to allow the erection of scaffolding or to manage a tree near a proposed structure. Below ground protection measures, based on the RPAs presented in the Arboricultural Impact Assessment Plan will involve the erection of tree protection barriers as discussed below.

Where the proposed site layout requires the breaching of these ideal areas, measures are recommended in order to minimise the damage to the roots and the root environment of the tree in question. Such measures acknowledge the fact that the extent, distribution and actual position of roots of a tree within the RPA are not known. The tree protection fencing is illustrated in Appendix 2. As previously discussed, it is not certain where roots of trees may or may not be and the illustrations in the Arboricultural Impact Assessment Plan and Tree Protection Plan are only guidelines based on calculations shown in BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.

### **Tree Protection Fencing**

The Tree Protection Plan, see Appendix 3, shows the location of the proposed tree protection barriers.

Such Construction Exclusion Zones will be erected in accordance with the recommendations in Section 6.2 of BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'. The specifications for the barriers are presented in Figure 2 from BS5837:2012 presented in Appendix 2.

It is essential that tree protection fencing barriers are erected before at the earliest possible stage. (Any remedial tree works however, should be undertaken before such fencing is erected).

### **Conclusion**

The trees within the site need protection from the future storage or movement of building materials. This should initially be with the recommended fencing, see Appendix 2, but longer term it is recommended that the fencing is replaced with permanent post and sheep netting to 1.5m high.

Most of the trees are showing some signs of stress and have generally been left unmanaged for a number of years. The recommendation therefore is that before any site works are carried out a schedule of tree works is undertaken to improve the structure and longer term health of the trees.

There is scope for replanting along the western boundary with Hazel planted at 3m centres. On the sides of the banks and with trees, such as Field Maple, along the top of the bank.

## **Arboricultural Method Statement**

### **General**

This section sets out the basis of the methodology for all proposed works in relation to the proposed new development in proximity to trees and hedgerows located within the development site boundary and for those trees outside the development site boundary where they overhang the site or where their RPAs extend into the site.

Copies of the detailed Arboricultural Method Statement document will be available for inspection on site and will form the basis of the management of all works relating to the trees on the site for the Site Agent/Manager following commencement of the project.

The developer will inform the Local Planning Authority of the project Arboriculturalist charged with overseeing and monitoring the works related to the trees retained on site and will notify the Local Planning Authority within twenty four hours if the Project Arboriculturalist is replaced.

Site Location at: Land within Tor Hill Works, Constitution Hill, Wells, Somerset, BA5 3NT.

Contact Details: Not known

Site Promoters: Serious Stages

Project: Commercial development

Local Authority: Mendip District Council (now Somerset Council).

Tree Officer: Bo Walsh

Telephone:

E-mail:

### **Legislation and Guidance**

Town & Country Planning Act 1990

Town & Country Planning (Tree Preservation) (England) Regulations 2012

Health & Safety at Work Act 1974

Construction (Design & Management) Regulations 1994

BS 5837:2012 'Trees in relation to design, demolition and construction – Recommendations'

BS 3998:2010 'Tree Work – Recommendations'

National Joint Utilities Group Publication No.4:

### **Tree Protection Barriers – Tree Protection Plan**

Before the commencement of any works on site protective barriers, see Appendix 2, will be erected in the positions to be agreed with the local authority.

The Local Planning Authority will be notified in writing once the barriers are in place.



The protective barriers will consist of a scaffold framework in accordance with Figure 2 and Figure 3 of BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations' (Appendix D), "...should consist of a vertical and horizontal framework, well braced to resist impacts... vertical tubes should be spaced at a maximum interval of 3m and driven securely into the ground. On to this weldmesh panels should be securely fixed".

The protective barriers will remain in place until completion of the main construction phase and will then only be removed with the written consent of the Local Planning Authority.

Tree protection will be undertaken in accordance with the specific method statement relating to the approved design details. Such operations will be undertaken with the close monitoring by the appointed Project Arboriculturalist and together with liaison with the Local Planning Authority Tree Officer.

Other than works detailed within this method statement or approved in writing by the Local Planning Authority, no works (including the storage or dumping of materials, or the storage or operation of machinery or plant) shall take place within the Construction Exclusion Zones defined by the protective barriers or ground protection measures.

Protective barrier site notices (of a form similar to those presented in Appendix 2) will be attached to the exterior of the protective fencing where they can be easily read by site personnel.

#### 5.7 General Precautions

No materials that are likely to have an adverse effect on tree health will be stored or discharged within 5 metres of the RPA of a tree or hedgerow that is to be retained. Stored material may include: oil; petrochemical waste; bitumen; and cement

No fires will be lit within 10m of the canopy spread or RPA, whichever greater, of a tree.

Concrete mixing will not take place within 5 metres of the edge of the RPA.

#### **Access for Construction Works – Plant and Machinery**

Details of the type and number of machines and plant to be used on the site will be submitted in writing to the Local Planning Authority prior to the commencement of any works on site within the site Health and Safety Plan and Method Statement.

#### **Access for Construction Works – Site Hut and Contractors' Compound**

Plant and storage areas including site compound, staff welfare facilities etc will be clearly identified within the site Method Statement and Health and Safety document.

#### **Arboricultural Works**

Any remedial arboricultural will be carried out before commencement of other site operations including the erection of protective barriers.

No vehicles will be allowed to enter areas to be protected by barriers.

All works will be carried out in accordance with BS3998:2010 'Tree Work Recommendations'. 5.11 Supervision and Monitoring

It is recommended that a Project Arboriculturalist is employed to oversee operations relating to works close to or within RPAs.

- The erection of protective barriers around the retained trees in accordance with Appendix B and signed (Appendix C).
- The construction of any additional structures within the identified Root Protection Areas (Not currently applicable). 5.11 Supervision and Monitoring 5.11.1 It is recommended that a Project Arboriculturalist is employed to oversee operations relating to works close to or within RPAs.
- The erection of protective barriers around the retained trees in accordance with Appendix B and signed (Appendix C).
- The construction of any additional structures within the identified Root Protection Areas (Not currently applicable).

It is recommended that a record of site visits completed by the Project Arboriculturalist is maintained for inspection on site and copies are forwarded to the appointed developer, site agent, and the Local Planning Authority Tree Officer (Example Appendix E)

### **Contingency Plans**

In the event of unforeseen incidents occurring, that may adversely affect or threaten the welfare or security of the trees, the resident Site Agent/Manager shall inform the Project Arboriculturalist at the earliest opportunity and not more than one working day following the incident.

The Project Arboriculturalist will visit the site to inspect and assess the circumstances and make any appropriate recommendations. The Local Planning Authority Tree Officer will be informed by the Project Arboriculturalist of such incidents and recommendations will be submitted for approval by the Local Planning Authority, initially verbally, and then in writing.

A record of any emergency incidents and works shall be maintained by the Project Arboriculturalist.

Incidents which may merit such contingency plans include:

- Accidental / unauthorised damage to the limbs, roots or trunk of trees
- The spill of chemicals.

## Appendix 1 – Tree Officer Consultation Response



Customer Services  
 Cannards Grave Road, Shepton Mallet, Somerset BA4 5BT  
 Telephone: 0300 303 8588 Fax: 01749 344050  
 Email: customerservices@mendip.gov.uk  
 www.mendip.gov.uk

### TREE OFFICER

#### RESPONSE TO DEVELOPMENT MANAGEMENT CONSULTATION REQUEST

App ref No:	2021/1703/FUL
Site Address:	Tor Hill Works Constitution Hill Wells Somerset BA5 3NT
DM Case Officer:	Kelly Pritchard

Object	x
No Objection	
No Objection subject to conditions	

#### Full Response:

##### Comments / Observations

This retrospective application – construction of a bund – north-west of the site - has not provided an Arboricultural Impact Assessment / Arboricultural Method Statement based on a Tree Survey compliant with British Standard (BS) 5837:2012 – Trees in relation to design, demolition and construction – recommendations.

The submitted tree survey does not comply with the British Standard and does not include a Tree Survey / Constraints Plan or Tree Protection Plan for any retained trees.

The bund itself is quite a stark incongruous feature - being immediately adjacent to two public footpaths (one being the East Mendip Way) as well as the high priority habitats of Strawberry Wood and Torhill Wood.

Spoil from the site has already encroached into the deciduous wooded area (Torhill Wood) to the south of the site – visible from the public right of way along the west flank of the site and from the track running immediately south of the site's western boundary - by spilling down the bank into the wood.

There are a number of Ash trees present in the wood that may be affected by Ash Die-Back and therefore additional pressure on the wood should be avoided as the wooded area could become further degraded.

##### The Bund

The main issue with the bund – which also does contain a number of trees in a scattered group (near to the north-eastern section - where the previous, older bund has softened in appearance due to the presence of trees / shrubs) – is that it appears that a linear strip (in the region of 140 metres possibly) of hedgerow / trees was removed to construct the bund - resulting in a loss of biodiversity and a green corridor – i.e. if you had been walking along



the East Mendip Way you would have been flanked on either side by a green woodland edge-like feature.

Aerial photos attest to the presence of trees / hedgerow along the perimeter of the application site. This is now where the bund has been constructed.

**Conclusion**

I have a holding Objection for the following reasons:-

Absence of a Tree Survey / Arboricultural Impact Assessment / Tree Constraints Plan / Draft Tree Protection Plan – that complies with BS5837:2012.

Lack of any detail to demonstrate how the loss of the linear green feature can be mitigated – equals a demonstrable loss of biodiversity and no net gain as per NPPF (2021).

Therefore does not conform to policies DP1. / DP4. of the local plan.

**Conditions:**

Bo Walsh  
Tree Officer

## Appendix 2 – Tree Protection

BS 5837:2012

BRITISH STANDARD

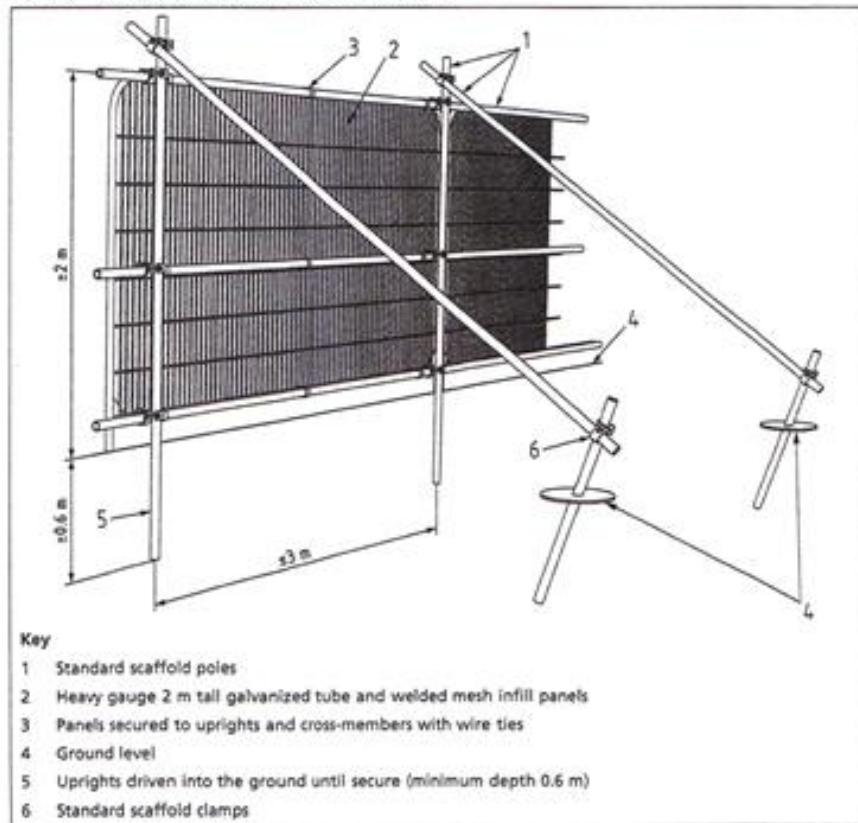
on retained hard surfacing or it is otherwise unfeasible to use ground pins, e.g. due to the presence of underground services, the stabilizer struts should be mounted on a block tray (Figure 3b).

*NOTE 1* Examples of configurations for steel mesh perimeter fencing systems are given in BS 1722-18.

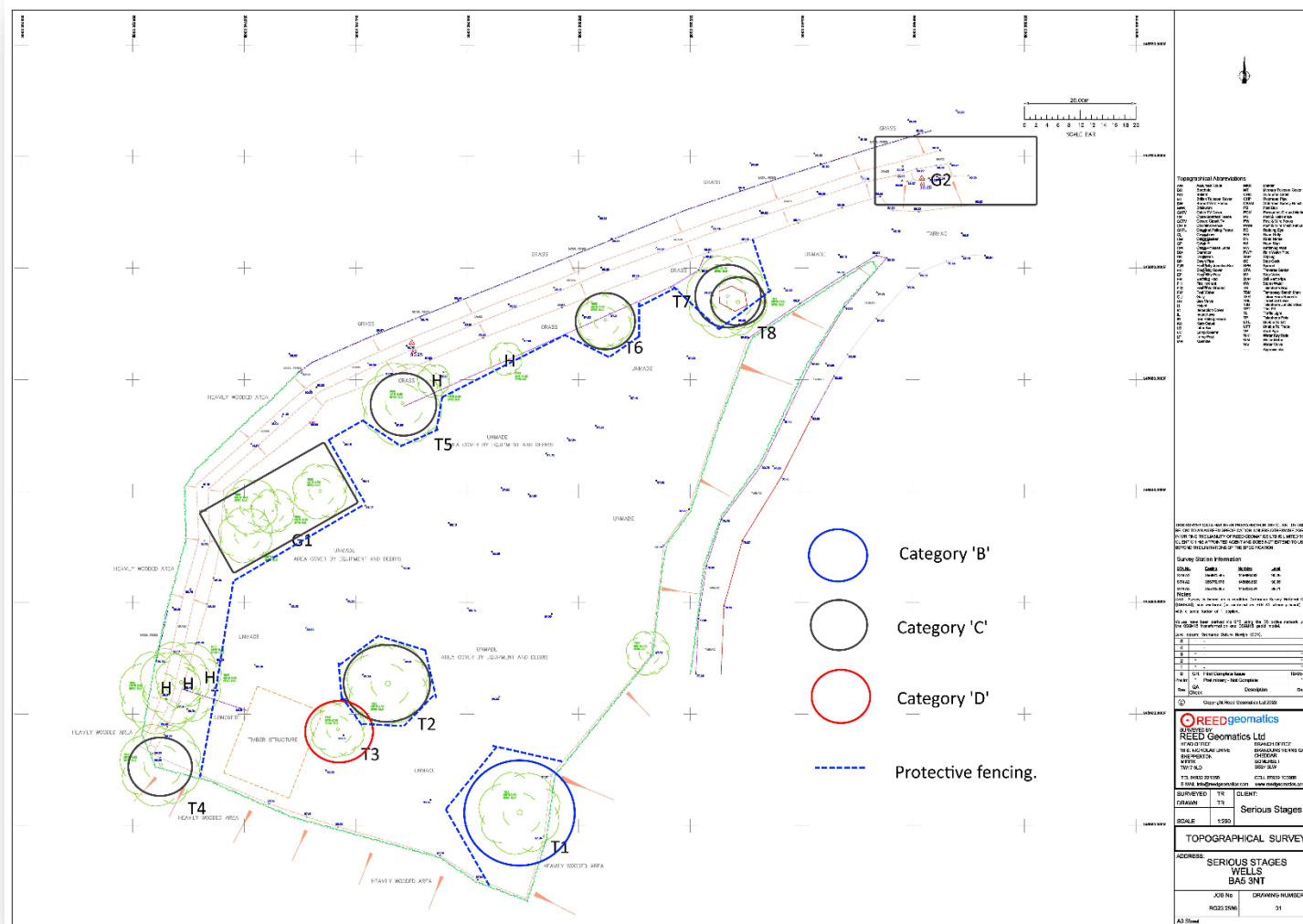
*NOTE 2* It might be feasible on some sites to use temporary site office buildings as components of the tree protection barriers, provided these can be installed and removed without damaging the retained trees or their rooting environment.

6.2.2.4 All-weather notices should be attached to the barrier with words such as: "CONSTRUCTION EXCLUSION ZONE – NO ACCESS".

Figure 2 Default specification for protective barrier



## Appendix 3 – Tree Protection Plan





#### Appendix 4 – Tree Schedule





Tree no	Species	Height (m)	Stem diam (cm)	Crown spread – radius (m)	Canopy height (m)	Life stage	Observations	Contribution in years	Category	RPA as radius from trunk (m)
T1	Oak	12	79	8	5	M		25+	B2	9.5
T2	Oak	14	62	6	5	M	Showing significant signs of stress. Remedial works required	25+	C2	7.4
T3	Oak	14	53	5	6	M	Severely stressed Recommendation to fell.	5+	U	6.4
T4	Beech	15	48	6	4	M	Significant lean to the SW	25+	C2	5.8
T5	Oak	13	44	8	3	M	Showing signs of stress	25+	C2	5.3
T6	Oak	10	35	6	3	M	Leaning to the SW – showing signs of stress.	25+	C2	4.2
T7	Oak	12	36	6	6	M		25+	C2	4.3
T8	Oak	9	47	7	4	M	Dominated by T7	25+	C2	5.6

Tree no	Species	Height (m)	Stem diam (cm)	Crown spread – radius (m)	Canopy height (m)	Life stage	Observations	Contribution in years	Category	RPA as radius from trunk (m)
G1	Field Maple x4	12	30-40	5	4	M	Generally, in poor condition.	25+	C2	4.8
G2	Sycamore, Oak (x2), Hawthorn and Hazel	9	20-30	4	1	SM	In need of tree management	25+	C2	3.6

*\*The RPA is calculated using the larger figure.*

## Appendix 5 – Cascade Chart for Tree Quality Assessment

Cascade Chart for Tree Quality Assessment, April 2012

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
<b>Trees unsuitable for retention</b>				
<b>Category U</b> Trees 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.	<ul style="list-style-type: none"> <li>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 or other category U trees e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning.</li> <li>Trees that are dead or are showing signs of significant, immediate and irreversible overall decline.</li> <li>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.</li> </ul> <p><i>Note: Category U trees can have existing or potential conservation value which it might be desirable to preserve.</i></p>			 <b>DARK RED</b>
<b>Trees to be considered for retention</b>				
	<b>1. Mainly arboricultural qualities</b>	<b>2. Mainly landscape qualities</b>	<b>3. Mainly cultural values, including conservation</b>	<b>Identification on plan</b>
<b>Category A</b> 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 with an avenue	Trees, groups or woodland of particular visual importance as arboricultural and/or landscape features	Trees, group or woodlands of significant conservation, historical, commemorative or other value e.g. veteran trees or wood-pasture.	 <b>LIGHT GREEN</b>
<b>Category B</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 group 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	 <b>MID BLUE</b>
<b>Category C</b> Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	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.	 <b>GREY</b>