Arboricultural Impact Assessment for:
Pumping Station replacement, Longleat Center Parcs

Inspected and prepared by	Prepared for	Report date
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Site address	Report reference	Planning Reference
Longleat Village Center Parcs Longleat Warminster BA12 7PU	LCP-Pumphouse-AIA-052025	TBC

Executive summary

This Arboricultural Impact Assessment has been prepared in order to provide Wiltshire Council with arboricultural information in support of a planning application for the removal of an existing pumphouse and the installation of a new pumphouse at Longleat Center Parcs.

The information within is compliant with *BS5837: 2012 Trees in Relation to Design, Demolition and Construction – Recommendations* and contains details of the direct and indirect impacts of the proposals on the trees on and adjacent to the site.

Ten mature coast redwood trees are proposed for removal, three are programmed for removal as part of routine thinning in accordance with the site Felling Licence, the remaining seven need to be removed to facilitate the proposals. Tree removals will be mitigated though additional tree planting around the site.

The demolition of the existing pumphouse will take place in part by hand and in part by using machinery working from the existing adjacent hard standing to avoid causing compaction within root protection areas (**RPAs**) in soft landscape. The existing tanks will be compressed below ground and the void will be filled with topsoil. All works will take place under the supervision of an arboriculturist to ensure the roots of retained trees are not damaged during the works.

The construction of the new pumphouse and the rising main/valve chamber to the west of the pumphouse, encroach on 10.5% of the RPA of retained oak T11 and the rising main to the east of the pumphouse connecting to the existing valve chamber encroaches on 8.5% of the southern RPA of retained oak T06. To minimise the impact on the oaks, excavations for the pumphouse, rising main and valve chamber will take place under the supervision of an arboriculturist and any roots encountered will be pruned with a sharp pruning tool and will not be ripped or torn by machinery.

Retained trees will be protected from development activity by a combination of existing hard surfacing serving as ground protection for underlying roots and physical barriers erected to exclude construction activity from RPAs in soft landscape that are vulnerable to compaction

The site does not lie within the limits of a Conservation Area and there are no trees on the site that are the subject of a Tree Preservation Order.

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1.0 Instructions

1.1 Assured Trees are instructed to carry out a survey of trees that could potentially be impacted by the replacement of a failing water pumping station at Longleat Center Parcs and to prepare an Arboricultural Impact Assessment report to support a planning application to Wiltshire Council for the demolition of the existing station and the construction of a new pumping station.

1.2 This report has been prepared by a qualified arboriculturist in accordance with *BS5837: 2012 Trees in Relation to Design, Demolition and Construction – Recommendations* and contains the components listed in Table 1. The aim of this report is to identify and assess potential impacts on trees on the site as a result of proposed development works, identify tree works or tree removals that are necessary to facilitate the proposals and outline suitable mitigation measures for any identified adverse impacts on retained trees.

Component	Description
Tree survey and tree work schedule	Including all trees that could potentially be impacted by the proposals and containing details of trees to be removed and any proposed tree works.
Arboricultural Impact Assessment (**AIA**)	Containing details of the potential impacts of development proposals on trees on and adjacent to the site.
Arboricultural Method Statement (**AMS**)	Preliminary report presented at **Appendix A** as a standalone document containing a clear specification for protective measures for retained trees throughout the development process.
Tree Protection Plan (**TPP**)	Illustrating the extent and location of required tree protection measures.

***Table 1**: Report components*

1.3 This report has been informed by the following documents:

Document	Reference	Supplied by
Topographical site survey	7163_Center Parcs, Longleat_Topo 2D	Center Parcs
Proposed site plan	6870-KSA-XX-XX-DR-C-0001-P4-Drainage Layout	Center Parcs

***Table 2**: Documents provided*

2.0 Introduction

2.1 The application site is an area of the Longleat Center Parcs site to the south-east of the main lake between the main drive, a small staff car and guest lodges. The focus of the application is an existing pumping station constructed in 1994 which serves approximately 50% of the village, the concrete chambers life has expired and is now starting to fail, it is also undersized for the site which has significantly expanded since 1994 and the increased demand risks overflowing should the station fail, therefore, a new more resilient pumping station is now essential.

2.2 The location of the new station has been the subject of significant evaluation in order to determine the site which has the least impact on adjacent trees. The new station has to be in close proximity to the old station due to the convergence of both gravity and pumped drains with the existing gravity drain taking precedence. Topography is a significant issue and the new location has been chosen as it is 1.8m lower than the existing station which negates the need for significant levelling ground works, utilises an existing tarmac carpark as opposed to alternative locations which are in woodland and impacts the least number of trees compared to alternative locations.

Site location:

***Figure 1**: Site Location indicated by orange arrow. https://www.streetmap.co.uk/*

***Figure 2**: Red line indicates approximate site limits. www.google.com*

3.0 Report limitations

3.1 The tree survey was carried out from ground level, observations were made in the context of planning and development in accordance with BS5837:2012 and specifically relate to the conditions found at the time of the survey. The survey does not constitute a detailed hazard assessment, no decay detection equipment has been used in assessing trunk condition and no samples of any kind have been taken for analysis.

4.0 Trees included in the survey

4.1 Forty-two trees and one tree group were identified in the survey and have been awarded category ratings in accordance with the BS5837:2012 cascade chart for tree quality assessment (table 3). Category ratings of **A**, **B**, **C** or **U** are allocated based on the condition of a tree or group of trees in its/their current surroundings, with **A** representing the higher quality trees, **B** the moderate quality, **C** the lower quality and **U** the trees that cannot realistically be retained in the context of the current land use. A full account of the tree survey methodology including the categorisation criteria for surveyed trees is presented at Appendix E.

	Category			
	A	B	C	U
Trees	28	7	7	0
Groups	0	0	1	0

***Table 3**: Tree categorisation quantities*

5.0 Root Protection Areas (RPAs)

5.1 Root Protection Areas (**RPAs**) for all trees on site have been calculated in accordance with BS5837:2012 and form below ground constraints to development. The RPA is a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure should be treated as a priority, the RPA does not represent the entire root system of a tree. The RPAs have been plotted onto the Tree Protection Plan as a circle centred on the base of each tree stem with a radius of 12 times the trees stem diameter measured at 1.5 metres above ground level.

5.2 BS5837:2012 requires that where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically the RPA should be modified to produce a polygon of an equivalent area. Table 4 contains details of all trees on site for which the RPA has been modified.

Tree No.	Reason for modification
T26-T30	The west boundary of the staff car park is retained by a 1.5m high timber wall, the level differential between the car park and the area to the west will have prevented root growth beyond the retaining wall.

***Table 4:** RPA modifications*

6.0 Statutory constraints

6.1 A review of Wiltshire Council on-line resources[1] reveals that the site does not lie within the limits of a Conservation Area and that there are no trees on the site that are the subject of a Tree Preservation Order (**TPO**). It is not currently necessary to obtain consent from Wiltshire Council to carry out tree works on the site, however planning policy requires tree works that are in the interest of development to be included within arboricultural information supporting a planning application regardless of statutory tree protection.

6.2 Although trees on the site are not protected by Conservation Area or TPO designations, tree felling is a legally controlled activity and if tree removals are proposed on the site in excess of 5 cubic metres in volume in a calendar quarter (or 2 cubic metres if the timber is being sold), then a felling license may be required from the Forestry Commission[2].

[1] https://wiltscouncil.maps.arcgis.com/
[2] https://www.gov.uk/guidance/tree-felling-licence-when-you-need-to-apply

6.3 The Wildlife and Countryside Act 1981 (as amended), Countryside and Rights of Way Act 2000, and The Conservation of Habitats and Species Regulations 2017, afford statutory protection for listed species of flora and fauna including birds and bats which are likely to use trees for nests and roosts. It is essential that any tree works do not disturb a nesting bird, bat or bat roost. If there is potential for nesting birds or roosting bats to be using a tree scheduled for works then a qualified ecologist should be consulted and tree works timed and planned to avoid disturbance.

7.0 Soils

7.1 Tree growth can cause differential movement in structures on shrinkable clay soils as moisture is removed from the soil below foundation depth during the growing season. Soil information obtained using the British Geological Survey Data[3] indicates an underlying geology of *Cann Sand Member – Sandstone* and does not indicate there is an underlying clay soil with a high potential for volume change as a result of moisture abstraction by tree roots.

8.0 Site images

***Image 1**: The existing pumping station.*	***Image 2**: Site of the proposed pumping station.*

[3] https://geologyviewer.bgs.ac.uk/?_ga=2.152583345.92563876.1660213156-1216554341.1660213156

***Image 3**: Plantation redwoods between the existing pumping station (right) and staff carpark (left).*

9.0 Planning policy

9.1 Planning applications must give due consideration to the National Planning Policy Framework (NPPF) (December 2024) which states that *development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused.* Wiltshire Core Strategy[4] contains the following policies that restrict development which would result in the loss of trees, hedges or other features that contribute to the character of an area:

- CP50: Biodiversity and Geodiversity
- CP51: Landscape
- CP52: Green Infrastructure
- CP57: Ensuring High Quality Design and Place-shaping

[4] https://www.wiltshire.gov.uk/media/372/Wiltshire-Core-Strategy-adopted-2015/pdf/Wcs.pdf?m=1574343137353

10.0 Tree removals and arboricultural works

10.1 **Tree removals:** It is proposed to remove ten mature coast redwood trees as detailed in table 5.

Number	Species	Age class	Stem diameter	Retention category
T12	Coast redwood	Mature	1,132mm	A2
T13	Coast redwood	Mature	1,360mm	A2
T14	Coast redwood	Mature	980mm	A2
T15	Coast redwood	Mature	1,170mm	A2
T16	Coast redwood	Mature	1,110mm	A2
T17	Coast redwood	Mature	880mm	B2
T18	Coast redwood	Mature	940mm	B2
T19	Coast redwood	Mature	900mm	B2
T20	Coast redwood	Mature	1,320mm	A2
T43	Coast redwood	Mature	1,400mm	A2

***Table 5**: Trees proposed for removal.*

10.2 The redwoods form part of a unique redwood plantation compartment and are in need of thinning in accordance with the existing Felling Licence, trees 14, 18 and 19 were scheduled for removal as part of routine thinning prior to the pumping station plans being developed and will be removed regardless of development works. The remaining trees proposed for removal are not scheduled for thinning and their removal is necessary to facilitate the pumphouse demolition and installation works.

10.3 It is acknowledged that the removal of ten mature Coast redwoods to facilitate development is a significant impact however it has been determined that the current pumping station needs to be replaced, that the new station location has to be in close proximity to the old station due to the convergence of both gravity and pumped drains and that the proposed site is the most suitable and results in the minimum amount of ground disturbance and therefore tree removals compared with any other potential locations. There is no way of mitigating the impact of the works on RPAs and therefore, reluctantly, it is proposed to remove the trees. Being a plantation woodland, following the removal of the redwoods, there will still be a significant number of mature redwoods to continue to provide visual amenity in the area.

10.4 **Arboricultural works:** Following tree removals there is no requirement for any above ground tree pruning works to facilitate the proposals.

10.5 Mitigation for tree removals will be delivered through additional tree planting on the site, tree planting plan including species, planting stock size and location to be submitted separately to this report for approval.

11.0 General impacts of development

11.1 Trees are commonly damaged during development through root severance to construct foundations or install services or through soil compaction within the rooting area of a tree which adversely affects drainage, gas exchange, nutrient uptake and organic content, and will seriously impede or restrict root growth potentially causing the decline or death of the tree. Further damage can be caused by direct contact damage to parts of a tree from plant and equipment.

11.2 To avoid damage to trees, construction activity must be excluded from Root Protection Areas (**RPAs**) by robust physical barriers creating a Construction Exclusion Zone (**CEZ**). If construction access is required within RPAs, barriers need to be set back and ground protection used over the exposed area of RPA to prevent soil compaction. Existing hard surfacing such as tarmac can be used as ground protection.

12.0 Potential impacts on retained trees

12.1 **Demolition:** The existing pumping station apparatus is to be removed along with the surrounding timber fence and the concrete around the existing chamber, the tanks will be collapsed in situ and buried. The works have the potential to impact multiple retained redwoods with RPAs in the area of the pumphouse (T21-T24, T41 and T42). To prevent an adverse impact on surrounding trees the wooden surround must be removed by hand and carried to the adjacent road for disposal. Demolition machinery must work from the existing tarmac road to the south-west under the direct supervision of an arboriculturist to ensure that any roots surrounding the chamber are not damaged by the works. Following the removal of the apparatus and the collapsing of the tanks the void must be filled with good quality topsoil.

12.2 **Pumphouse and rising main installation:** The new pumphouse will be constructed at the north end of the existing staff carpark. The north-west corner of the pumphouse and the rising main/valve chamber to the west of the pumphouse, encroach on 10.5% of the RPA of retained oak T11 and the rising main to the east of the pumphouse connecting to the existing valve chamber encroaches on 8.5% of the southern RPA of retained oak T06. The root loss associated with the encroachments is unlikely to have a significant adverse impact on the trees but to minimise the impact, excavations must take place under the direct supervision of an arboriculturist and any roots encountered must be pruned with a sharp pruning tool and not ripped or torn by machinery which can damage roots closer to the tree than the point of contact and create jagged wounds that encourage colonisation by decay pathogens.

12.3 A gravity drain is required linking the existing pumphouse with the new pumphouse, which requires an opencut excavation the encroaches on the periphery of the RPAs of trees T21, T22, T23, T41 and T42. The encroachment in not significant enough to necessitate the removal of the trees and the resulting root loss is unlikely to have a significant adverse impact on the trees but to minimise the impact, excavations must take place under the direct supervision of an arboriculturist and any roots encountered must be pruned with a sharp pruning tool and not ripped or torn by machinery which can damage roots closer to the tree than the point of contact and create jagged wounds that encourage colonisation by decay pathogens.

12.4 **Ground protection:** Access will be required to the RPAs of trees 41 and 42 to excavate the service trench which could result in ground compaction in the soft landscape either side of the trench. To prevent ground compaction within RPAs ground protection boards must be laid that are capable of supporting the construction traffic entering or using the site without being distorted or causing compaction of underlying soil. The existing tarmac surface in the staff carpark will serve as ground protection for exposed RPAs within the staff carpark during the pumphouse construction and rising man installation works.

12.5 There is potential for demolition and construction works to adversely impact adjacent retained trees through plant and machinery involved in the operation causing ground compaction and through direct contact damage from plant, equipment and materials during the demolition and construction process. To prevent damage to retained trees robust, temporary protective barriers must be erected to exclude construction activity from RPAs in soft landscape that are vulnerable to compaction and to ensure a physical barrier is maintained between the trees and the works. The barriers must be appropriate to the degree and proximity of work taking place around the retained trees and must be maintained to ensure that they remain rigid and complete (figures 3 and 4).

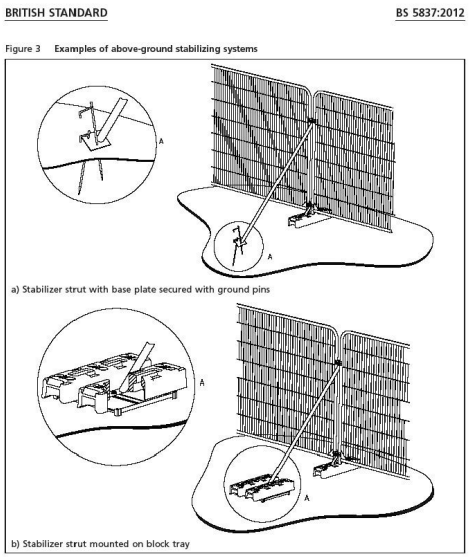


Figure 3: *BS5837: 2012 6.2.2.3. protective barriers*

Figure 4: *Example of protective barriers in use.*

12.6 **Services**: Electrical services will be connected to an existing supply on the south side of the driveway immediately to the west of T43, which is the reason for the proposed removal of T43, as the trench is in close proximity to the trunk.

12.7 There is potential that an existing duct could be utilised below the road that would negate the need to excavate a trench in close proximity to T43. As the viability of the duct option cannot be determined until the point of implementation it has been decided to propose the worst case scenario of needing to remove T43 at application stage. If at the point of implementation it is discovered the existing ducting can be used to run the cable to the far side of the road (figures 5 and 6), then T43 will be retained. It is essential that all works to discover the viability of duct use are carried out under the supervision of an arboriculturist and that if T42 is retained all works within the RPA are carried out under arboricultural supervision with tree protection barriers erected accordingly as directed by the arboriculturist.

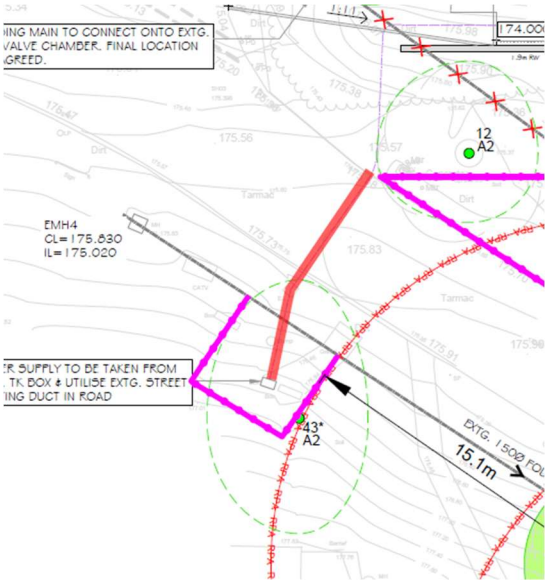


Figure 5: *Red line indicates duct that, if possible to use, will allow the retention of T43.*

Figure 6: *The location of the duct below the driveway adjacent T42.*

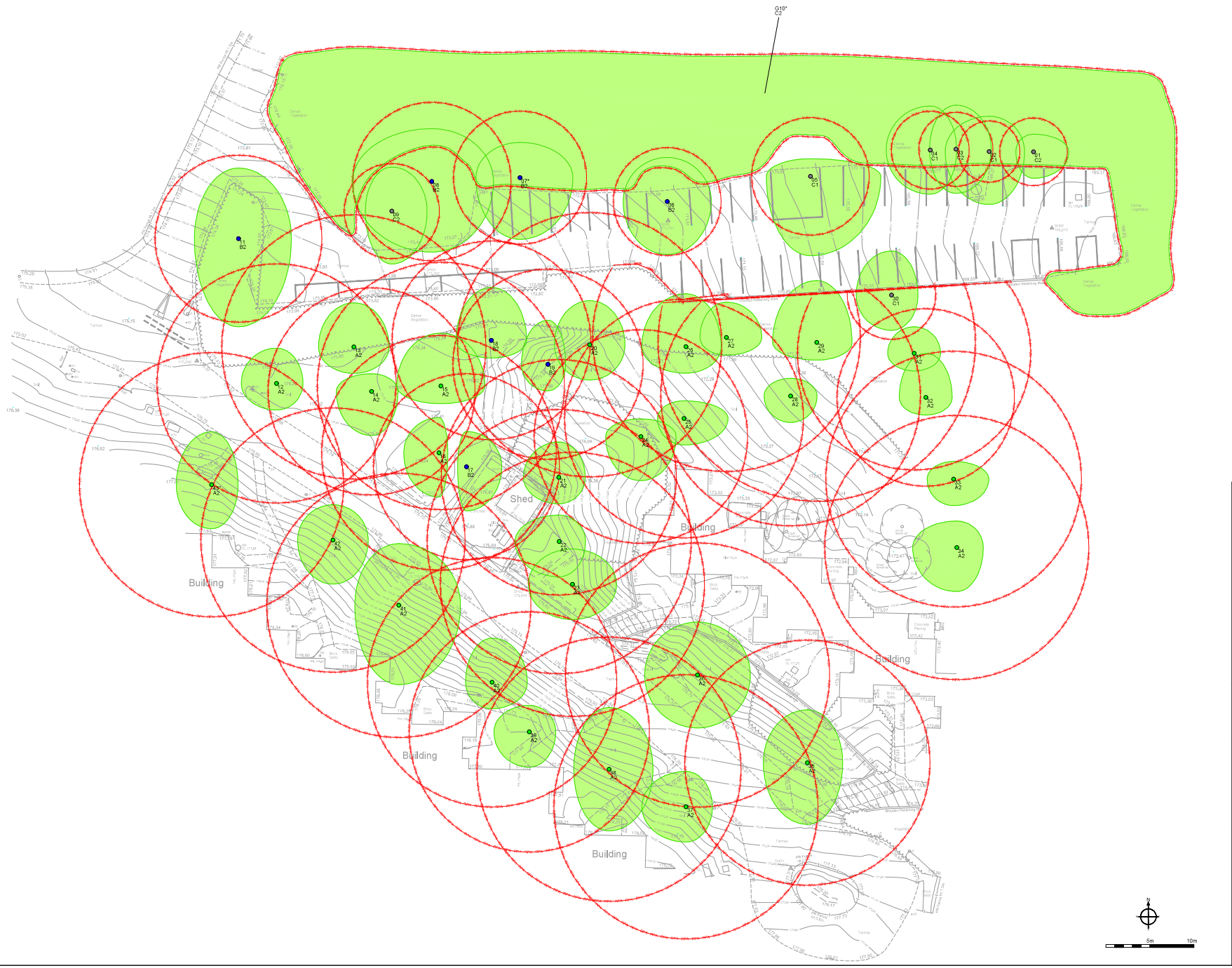
12.8 A mains water connection will be made in the existing drive to the south-west of T16 and will be installed in the same trench as the main gravity drain.

12.9 **Shading, leaf fall and future pressure to prune**: Due to the nature of the works there is no reason why shading or leaf fall will cause issues post construction and it is not anticipated that the works will lead to future pressure to prune or remove trees from the site.

13.0 Conclusions

13.1 The scheme requires the removal of ten mature Coast redwood trees seven of which are to facilitate the proposals and one of which will be retained if circumstances allow. The tree removals constitute a significant arboricultural impact, however the works are critical and essential and the design has been arrived at, having discounted all other options, as the least worst option in terms of arboricultural impact. There will remain a significant number of mature redwood trees surrounding the site that will provide visual amenity. Mitigation for tree removals will be provided through additional tree planting on the site.

13.2 The potential impacts on retained trees have been identified and assessed, the impact on retained trees will be mitigated by a combination of root pruning under arboricultural supervision, the use of ground protection boards and temporary protective barriers. Works must be carried out in strict accordance with the Arboricultural Method Statement provided at Appendix A.



Symbol Guide

Category — Crown Spread
Root Protection Area — Tree Number — Category

BS5837:2012 - Tree Category

- Category A Trees High Quality
- Category C Trees Low Quality
- Category B Trees Moderate Quality
- Category U Trees Poor Quality/Remove

NOTE: Tree/group numbers marked with an * have approximate locations.

ASSURED TREES

Project Name:	Longleat Center Parcs Pumping Station
Drawing Title:	Tree Constraints Plan
Drawing Number:	260226-LCPPS-TCP-NB
Client:	-
Date:	February 2026
Scale:	1:200 @ A1

Appendix A: Arboricultural Method Statement

Arboricultural Method Statement for:
Pumping Station replacement, Longleat Center Parcs

Inspected and prepared by	Prepared for	Report date
Stuart Roberts *DipArb(RFS), MICFor, RCArbor A*	Richard Watson Ecology & Biodiversity Manager Center Parcs Head Office One Edison Rise New Ollerton Newark Nottinghamshire NG22 9DP	21st May 2026

Site address	Report reference	Planning Reference
Longleat Village Center Parcs Longleat Warminster BA12 7PU	LCP-Pumphouse-AMS-052025	TBC

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1.0 Introduction

1.1 This preliminary arboricultural method statement (**AMS**) is intended to provide initial details and specifications for all tree protection measures and arboricultural related operations necessary during works to demolish a pumping station and construct a replacement pumping station at Longleat Center Parcs and will form the basis of a detailed arboricultural method statement if required through planning condition should the scheme achieve consent and if further arboricultural detail is considered necessary by Wiltshire Council. This AMS has been informed by Assured Trees Arboricultural Impact Assessment ref: *LCP-Pumphouse-AIA-052025.*

1.2 Copies of this AMS will be kept on site and the site manager will communicate the content to all staff and contractors with duties that have the potential to impact retained trees.

2.0 Arboricultural works

2.1 Prior to any demolition or construction works taking place trees T12, T13, T14, T15, T16, T17, T18, T19 and T20 will be removed. Trees T14, T18 and T19 may be removed as part of routine forestry thinning operations separately. Tree works will be carried out in accordance with *BS3998:2010 Tree work – Recommendations.* No pruning works are required to facilitate the proposals.

3.0 Tree protection

3.1 **Barriers:** Following tree removals and before the commencement of any demolition or construction works on site, protective barriers will be installed in the positions indicated on the Tree Protection Plan.

3.2 The barriers will consist of 2 metre tall welded mesh panels on rubber feet joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence. The distance between the fence couplers will be at least 1m and will be uniform throughout the fence. The panels will be supported on the inner side by stabilizer struts, which will normally be attached to a base plate secured with ground pins (Figure 1). Where the fencing is to be erected 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 will be mounted on a block tray (Figure 1).

3.3 The protective barriers will create Construction Exclusion Zones (**CEZ**) in order to prevent construction activity of any kind, including the storage of materials, within the unprotected RPA of retained trees. ***The barriers must not otherwise be moved or altered in any way without the written consent of Wiltshire Council.***

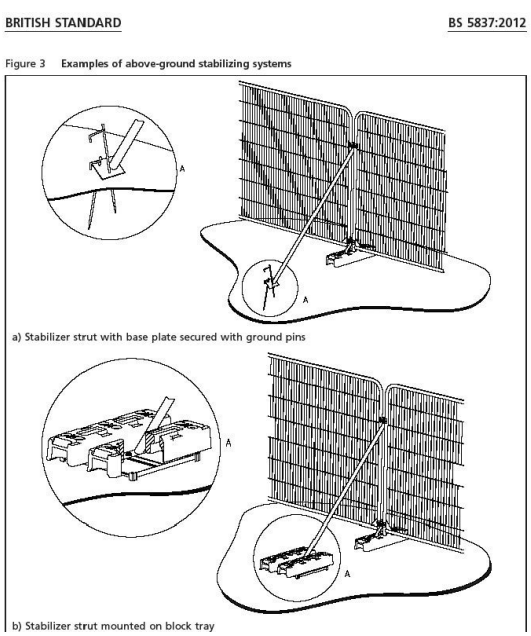


***Figure 1**: Protective barriers as detailed in BS5837: 2012 6.2.2.3*

***Figure 2:** Example of weldmesh panel protective barriers in use.*

3.4 Weather resistant protective barrier site notices (see example at Appendix F) will be attached to the barriers at 3 metres intervals to clearly identify their purpose as tree protection that must not be moved or altered.

3.5 Following the installation of the protective barriers temporary ground protection will be laid in the position indicated on the tree protection plan within the RPA of trees T41 and T42, consisting of proprietary, inter-linked ground protection boards[1] placed on top of a 150mm layer of woodchip, laid onto a geotextile membrane (figure 3), in accordance with BS5837:2012 6.2.3.3 a). The boards are capable of supporting up to 2 tonne[2] without becoming distorted or causing compaction of the underlying soil. The maximum weight of plant using the boards will be less than 2 tonne.

[1] *https://www.ground-guards.co.uk/sectors/tree-root-protection/*

[2] https://cdn.shopify.com/s/files/1/0936/1699/6689/files/Tree-Root-Protection-GroundGuards-White-Paper.pdf?v=1753396771

Figure 3: *Example of proprietary, inter-linked ground protection boards used as tree root protection.*

4.0 Works within Root Protection Areas (RPAs)

4.1 **Demolition:** The existing pumphouse will be demolished, the wooden fence surround will be removed using hand tools and carried to the adjacent hard standing for disposal outside of unprotected RPAs.

4.2 The pumphouse apparatus will be removed, the concrete surround will be broken up and removed and the existing tanks will be flattened and left in situ under the supervision of an arboriculturist. Works will be carried out using an excavator working from the adjacent tarmac road, machinery will not access the ground exposed by the removal works at any time. The supervising arboriculturist will direct works to ensure that any roots exposed by the removal works are not damaged.

4.3 As soon as the removal and tank flattening works are complete the void will be filled with good quality topsoil *compliant with BS3882:2015 - Specification for topsoil.* The topsoil must ideally be sourced from an area of the Longleat Center Parcs site as close to the work site as possible.

4.4 **Pumphouse construction:** The north-west corner of the pumphouse and the rising main/valve chamber to the west of the pumphouse, encroach on 10.5% of the RPA of T11. To minimise the impact on T11 excavations within the RPA will be carried out under the supervision of an arboriculturist and any roots encountered will be pruned back to the edge of the excavation with a sharp pruning tool by the supervising arboriculturist.

4.5 **Rising main installation:** The rising main to the east of the pumphouse connecting to the existing valve chamber encroaches on 8.5% of the southern RPA of T06. To minimise the impact on T06 excavations within the RPA will be carried out under the supervision of an arboriculturist and any roots encountered will be pruned back to the edge of the excavation with a sharp pruning tool by the supervising arboriculturist.

4.6 **Gravity drain installation:** The gravity drain linking the existing pumphouse with the new pumphouse requires an opencut excavation in the periphery of the RPAs of trees T21, T22, T23, T41 and T42. Excavations will be carried out under the supervision of an arboriculturist and any roots encountered will be pruned back to the edge of the excavation with a sharp pruning tool by the supervising arboriculturist.

4.7 **Services:** The water main connection between the main drive to the south and the new pumphouse to the north will run in the same trench as the gravity drain.

4.8 An electrical supply will be taken from a junction box adjacent T43. Before works to establish the link proceed, exploratory works will take place, under the supervision of the arboriculturist, to determine whether an existing duct running below the road can be used without the need to excavate a deep trench within the RPA of T43. If it is possible to use the existing duct without the need to cut any roots then T43 will be retained, the duct will be used and barriers will be extended to protect the full RPA of T43. If the duct cannot be used and 600mm deep excavations are required through the RPA of T43 then the tree will be removed and works will proceed using conventional methods.

5.0 Additional precautions outside of the construction exclusion zone (CEZ)

5.1 Fires will not be lit in a position where heat could affect the foliage or branches of a retained tree, no equipment, machinery, structure, notice boards, telephone cables or other services will be attached to or supported by a retained tree.

5.2 Cement, fuel and any other chemicals that could be harmful to retained trees will be stored and mixed in designated areas as far away from the outer edge of all RPAs as possible using spill trays to ensure accidental spillages will not contaminate RPAs. Spill kits will be kept on site at all times and all staff will be briefed on the location and correct use of the spill kits.

5.3 Planning of site operations will take sufficient account of wide loads, tall loads and plant with booms, jibs and counterweights (including drilling rigs), in order that they can operate without coming into contact with retained trees. Any transit or traverse of plant in proximity to trees will be conducted under the supervision of a banksman, to ensure that adequate clearance from trees is maintained at all times.

6.0 Access for construction works

6.1 Construction traffic will enter the site via the existing entrance to the staff carpark to the north and via the existing tarmac road to the south, construction traffic will not access the unprotected RPA of a retained tree at any time.

6.2 Site offices, contractor car parking, storage compounds and welfare facilities will be located outside of the construction exclusion zone (**CEZ**) as indicated by the protective barriers.

7.0 Supervision and monitoring

7.1 Assured Trees Ltd will be responsible for the monitoring of all tree protection measures and compliance with this Arboricultural Method Statement. A pre-commencement meeting will be held between a minimum of the site manager, the Center Parcs Grounds Services Manager and the project arboriculturalist to fully communicate the measures detailed within this AMS. A certificate of compliance will be issued to the client for the operations listed in table 1.

No.	Operation
1	Attendance of a pre-commencement meeting with the site manager, the Center Parcs Grounds Services Manager and the project arboriculturalist.
2	Erection of temporary tree protection barriers in the positions shown on the Tree Protection Plan.
3	Installation of temporary ground protection boards in the position shown on the Tree Protection Plan within the RPA of tees T41 and T42.
4	Arboricultural supervision of the excavations for the pumphouse and rising main installation within the RPAs of trees T6 and T11.
5	Arboricultural supervision of the excavations for the gravity drain within the RPAs of trees T21, T22, T23, T41 and T42.
6	Arboricultural supervision of exploratory works to establish if ducting can be used for an electrical supply adjacent T43.
7	Compliance with this AMS- post construction issue.

***Table 1**: Operations for which a certificate of compliance may be produced.*

8.0 Contingency plans

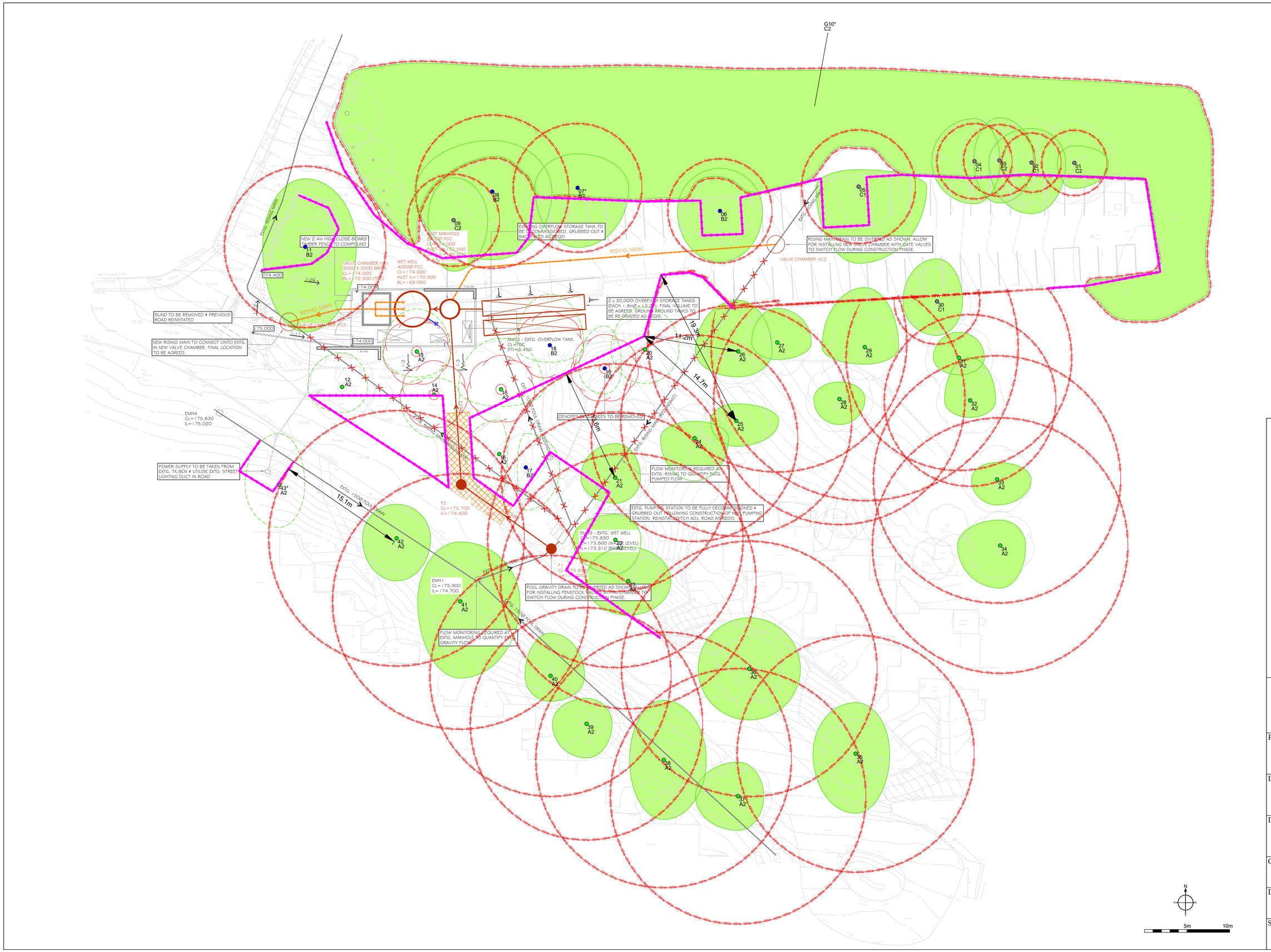
8.1 The occurrence of any unforeseen incidents that may adversely impact retained trees will be reported to Assured Trees as soon as practicable following the incident. Assured Trees will then advise on the appropriate course of action and will produce and maintain a record of any such incidents including any subsequent measures taken.

9.0 Sequence of works

Development stage	No.	Operation	Details
Pre-construction	01	Tree works	• Removal of trees T12, T13, T14, T15, T16, T17, T18, T19, T20 prior to any demolition or construction works on site.
	02	Installation of tree protection	• Installation of temporary tree protection barriers in the positions indicated on the Tree Protection Plan. • Installation of temporary ground protection boards within the RPA of trees T41 and T42 as indicated on the Tree Protection Plan.
	03	Demolition	• Demolition of wooden surround to existing pumphouse using hand tools. • Demolition of existing pumphouse apparatus under arboricultural supervision. • Filing of void in place of the existing pumphouse with good quality top soil.
During construction	04	Main construction phase	• Excavations for the pumphouse and rising main within the staff carpark under the supervision of the project arboriculturalist with root pruning if necessary. • Installation of gravity drain within the RPAs of trees T21, T22, T23, T41 and T42 under the supervision of the project arboriculturalist with root pruning if necessary. • Investigation works to establish if existing ducting can be used to pick up electrical supply by T43 with no need to excavate within RPA. • If duct can be used then then T43 to be retained and tree protection extended accordingly and all works within the RPA to be carried out under the supervision of the project arboriculturalist. • If duct cannot be used and an open trench is necessary to pick up electrical supply then T43 will be removed and the trench will be excavated using conventional methods.
Post construction landscape phase	05	Removal of tree protection	• Removal of temporary protective barriers and temporary ground protection boards following completion of all construction and hard landscape works.
	06	Soft landscape works	• Including tree, shrub and hedge planting.

Table 2: *Programme of works*

Appendix B: Tree Protection Plan



Symbol Guide

Category — Crown Spread
Root Protection Area — Tree Number — Category

BS5837:2012 - Tree Category

- Category A Trees High Quality
- Category C Trees Low Quality
- Category B Trees Moderate Quality
- Category U Trees Poor Quality/Remove
- Proposed Tree for Removal
- Line of Protective Fencing
- Ground Protection

NOTE: Tree/group numbers marked with an * have approximate locations.

ASSUREDTREES

Project Name:
Longleat Center Parcs Pumping Station

Drawing Title:
Tree Protection Plan

Drawing Number:
260521-LCPPS-TPP-Rev B-NB&AM

Client:
-

Date:
May 2026

Scale:
1:200 @ A1

Appendix C: Tree Survey Schedule

Tree Survey Schedule

Client: Richard Watson

Location: Longleat Center Parcs

Surveyor: Stuart Roberts

ASSUREDTREES

Tree Number	Single (S) or Group (G)	Tree Name (species)	Height (m)	Calculated Stem Diameter (mm)	Number of Stems	Crown Clearance (m)	Height & direction of 1st branch	Crown spread				Age Class	Physiological Condition	Structural Condition	Condition Notes	Recommendations	Estimated Remaining Life Contribution	BS Category	Root Protection Area (Radius, m)
								North(m)	South(m)	East (m)	West (m)								
01	S	Coast redwood	16	320	1	1	1.5-N	2	3	4	2	Y	G	G	Young single stem redwood on a bund on the north side of the staff car park, crown suppressed to the west.	None.	40+	C2	3.8
02	S	Goat willow	16	290	1	3	1.5-W	4	6	4	5	M	G	F	On a bund on the north side of the staff car park, drawn up crown form, crown bias south.	None.	20+	C1	3.5
03	S	Coast redwood	15	350	1	2	2-N	5	5	4	3	Y	G	G	Young single stem redwood on bund on north side of staff car park, crown bias north to south.	None.	40+	C2	4.2
04	S	Goat willow	14	368	2	4	3-N	5	5	3	5	M	G	F	On a bund on the north side of the staff car park, twin stem from 1m from narrow union, crown suppressed to east.	None.	20+	C1	4.4
05	S	Rhododendron	16	556	7	3	2-W	2	9	8	5	M	G	F	Large rhododendron, multi stem from base, part of a larger group of rhododendron to the north.	None.	20+	C1	6.7
06	S	English oak	22	510	1	5	4.5-E	5	6	5	5	M	G	G	Single stem oak on the north boundary of the staff car park, crown suppressed to north, major dead wood.	None.	40+	B2	6.1
07	S	English oak	17	630	1	4	4-S	4	7	6	5	M	G	G	Single stem oak on north boundary of the staff car park, crown suppressed to the west, major dead wood.	None.	40+	B2	7.6
08	S	English oak	22	750	1	5	5-N	6	8	7	9	M	G	G	Single stem oak on the north boundary of the staff car park, crown suppressed to the north, triple stem from 10m from good union, major dead wood.	None.	40+	B2	9.0
09	S	English oak	17	450	1	3	5-S	5	6	4	3	Sm	G	G	Oak on a bund on the north side of the staff car park, crown bias south.	None.	40+	C2	5.4
10	G	Coast redwood, pine, birch, oak and rhododendron	10	250	1	0	---	See tree constraints plan.				Sm	G	G	Tree group comprised of the smaller trees and shrubs growing beneath the canopy of the mature trees, dominated by rhododendron to the east and coast redwood regeneration to the west.	None.	40+	C2	3.0

Tree Number	Single (S) or Group (G)	Tree Name (species)	Height (m)	Calculated Stem Diameter (mm)	Number of Stems	Crown Clearance (m)	Height & direction of 1st branch	Crown spread				Age Class	Physiological Condition	Structural Condition	Condition Notes	Recommendations	Estimated Remaining Life Contribution	BS Category	Root Protection Area (Radius, m)
								North(m)	South(m)	East (m)	West (m)								
11	S	English oak	22	790	1	6	5-N	8	10	6	5	M	G	G	Mature oak at the west end of the staff car park, multi stem from 5m from good unions, crown suppressed to west, significant major dead wood to west, significant amount of RPA covered with hard standing.	None.	40+	B2	9.5
12	S	Coast redwood	40	1,132	1	2	7-S	4	3	3	4	M	G	G	Single stem coast redwood in good condition.	Fell to facilitate proposals.	40+	A2	13.6
13	S	Coast redwood	40	1,360	1	2	5-N	5	3	4	4	M	G	G	Single stem coast redwood in good condition, crown suppressed to south.	Fell to facilitate proposals.	40+	A2	15.0
14	S	Coast redwood	40	980	1	4	5-S	2	5	3	4	M	G	G	Single stem coast redwood in good condition, crown suppressed to north.	Remove as part of site thinning.	40+	A2	11.8
15	S	Coast redwood	40	1,170	1	15	15-N	6	2	5	5	M	G	G	Single stem coast redwood in good condition, crown suppressed to south.	Fell to facilitate proposals.	40+	A2	14.0
16	S	Coast redwood	40	1,110	1	4	8-S	4	5	1	4	M	G	G	Single stem coast redwood in good condition, crown suppressed to east.	Fell to facilitate proposals.	40+	A2	13.3
17	S	Coast redwood	40	880	1	15	15-N	4	5	4	1	M	G	G	Single stem coast redwood in good condition, crown suppressed to east.	Fell to facilitate proposals.	40+	B2	10.6
18	S	Coast redwood	40	940	1	1	3-N	6	2	4	4	M	G	G	Single stem coast redwood on south side of staff car park, crown bias north, good condition.	Remove as part of site thinning.	40+	B2	11.3
19	S	Coast redwood	40	900	1	3	8- N	5	3	2	3	M	G	G	Single stem coast redwood in good condition, crown bias north.	Remove as part of site thinning.	40+	B2	10.8
20	S	Coast redwood	40	1,320	1	2	8-N	5	4	4	4	M	G	G	Single stem coast redwood in good condition, crown bias north.	Fell to facilitate proposals.	40+	A2	15.0
21	S	Coast redwood	40	1,113	1	2	6-S	4	3	3	4	M	G	G	Single stem coast redwood in good condition, ivy established on trunk.	None.	40+	A2	13.4
22	S	Coast redwood	40	1270	1	3	6-E	3	4	3	5	M	G	G	Single stem coast redwood in good condition, crown suppressed to south east.	None.	40+	A2	15.0
23	S	Coast redwood	40	1610	1	4	7-N	4	4	5	5	M	G	G	Single stem coast redwood in good condition, crown suppressed to north west.	None.	40+	A2	15.0
24	S	Coast redwood	40	1,010	1	5	5-S	2	5	4	4	M	G	G	Single stem coast redwood in good condition, crown suppressed to north.	None.	40+	A2	12.1

Tree Number	Single (S) or Group (G)	Tree Name (species)	Height (m)	Calculated Stem Diameter (mm)	Number of Stems	Crown Clearance (m)	Height & direction of 1st branch	Crown spread				Age Class	Physiological Condition	Structural Condition	Condition Notes	Recommendations	Estimated Remaining Life Contribution	BS Category	Root Protection Area (Radius, m)
								North(m)	South(m)	East (m)	West (m)								
25	S	Coast redwood	40	1,130	1	4	6-E	2	3	5	3	M	G	G	Single stem coast redwood in good condition, crown bias to the east.	None.	40+	A2	13.6
26	S	Coast redwood	40	1,150	1	2	7- N	6	3	4	5	M	G	G	Single stem coast redwood in good condition, crown bias north.	None.	40+	A2	13.8
27	S	Coast redwood	40	1,080	1	2	7-N	4	2	4	3	M	G	G	Single stem coast redwood in good condition, crown suppressed to the south west.	None.	40+	A2	13.0
28	S	Coast redwood	40	1,190	1	5	6-E	2	3	3	3	M	G	G	Single stem coast redwood in good condition, crown supressed to the north.	None.	40+	A2	14.3
29	S	Coast redwood	40	1,570	1	1	6-N	7	2	4	5	M	G	G	Single stem coast redwood on south boundary of staff car park, crown bias north, good condition.	None.	40+	A2	15.0
30	S	Coast redwood	40	320	1	1	1-N	5	4	3	4	Y	G	G	Young single stem coast redwood on a bund on the south boundary of the staff car park, rooting restricted to the north by retaining wall, crown bias north.	None.	40+	C1	3.8
31	S	Coast redwood	40	1,010	1	15	16-N	3	2	3	3	M	G	G	Single stem coast redwood in good condition, crown suppressed to south.	None.	40+	A2	12.1
32	S	Coast redwood	40	840	1	5	7-N	5	2	3	3	M	G	G	Single stem coast redwood in good condition, crown bias north.	None.	40+	A2	10.1
33	S	Coast redwood	40	1,210	1	25	25-N	2	3	4	3	M	G	G	Single stem coast redwood in good condition, crown suppressed to south.	None.	40+	A2	14.5
34	S	Coast redwood	40	1,430	1	1	7-S	3	5	3	5	M	G	G	Single stem coast redwood in good condition, crown bias south west.	None.	40+	A2	15.0
35	S	Coast redwood	40	1,160	1	23	4-N	6	7	4	5	M	G	G	Single stem coast redwood on bund to south of lodge 471 in good condition	None.	40+	A2	13.9
36	S	Coast redwood	40	1,450	1	3	7-N	6	6	6	6	M	G	G	Single stem coast redwood on bund to south of lodge 472 in good condition	None.	40+	A2	15.0
37	S	Coast redwood	40	1,340	1	2	7-S	4	4	3	5	M	G	G	Single stem coast redwood to the front of lodge 460 in good condition.	None.	40+	A2	15.0
38	S	Coast redwood	40	1,330	1	5	7-W	7	7	5	4	M	G	G	Single stem coast redwood to the front of lodge 460 in good condition.	None.	40+	A2	15.0

Tree Number	Single (S) or Group (G)	Tree Name (species)	Height (m)	Calculated Stem Diameter (mm)	Number of Stems	Crown Clearance (m)	Height & direction of 1st branch	Crown spread				Age Class	Physiological Condition	Structural Condition	Condition Notes	Recommendations	Estimated Remaining Life Contribution	BS Category	Root Protection Area (Radius, m)
								North(m)	South(m)	East (m)	West (m)								
39	S	Coast redwood	40	1,137	1	3	6-E	3	4	3	4	M	G	G	Single stem coast redwood to the front of lodge 459, good condition.	None.	40+	A2	13.6
40	S	Coast redwood	40	1,180	1	3	6-S	5	3	4	3	M	G	G	Single stem coast redwood to the front of lodge 458, good condition.	None.	40+	A2	14.2
41	S	Coast redwood	40	1,390	1	2	7-N	7	9	7	5	M	G	G	Single stem coast redwood to the front of lodge 457, good condition.	None.	40+	A2	15.0
42	S	Coast redwood	40	1,490	1	4	10-N	4	5	4	4	M	G	G	Single stem coast redwood to the front of lodge 455, good condition.	None.	40+	A2	15.0
43	S	Coast redwood	40	1,400	1	3	8-N	6	5	3	4	M	G	G	Single stem coast redwood to the front of lodge 455, good condition.	Fell to facilitate proposals only if there is no ducting option for electrical services.	40+	A2	15.0

Table Heading	Definition
Tree Number	Tree numbers as they appear in the Tree Schedule and are marked on the Tree Protection Plan drawings.
Single or group	S for a single tree, G for a group of trees and H for a hedge
Species	The common name of the tree
Height (m)	In meters measured with a laser clinometer
Calculated stem diameter (mm)	Calculated diameter of the stem(s) measured in millimetres at 1.5 meters from ground level
Number of stems	Indicates the number of stems measured to inform the Root Protection Area
Crown clearance (m)	Height in metres of crown clearance above adjacent ground level
Height and direction of 1st branch	The height of the first significant branch in meters and the direction of the branch indicated in cardinal directions **N**=North, **S**= South, **E**= East and **W**= West
Crown spread (m)	The spread of the crown measured in metres, taken at the four cardinal points from the trunk
Age class	(Np) Newly planted, (Y) Young, (SM) Semi-Mature, (EM) Early mature, (M) Mature, (A) Ancient or (V) Veteran
Physiological condition	**G –** good, tree has good health and vitality. **F**- fair, tree has minor health and vitality problems. **P**- poor, tree has low vitality and significant health problems. **D**- dead tree.
Structural condition	G-good P- poor F- Fair D-dead
Condition notes	Specific notes relating to the condition of the tree
Recommendations	Recommendations for tree surgery based on any physical defects found or for further investigation of defects that require a more detailed assessment
Estimated remaining contribution	In years <10, 10+, 20+ or 40+
RPA (Root Protection Area) Radius (m):	The radius of the area in square metres that will need to be protected during construction with a protective fence and/or load bearing surface
Category grading Category	Category A: Trees of high quality with an estimated remaining life expectancy of at least 40 years Category B: Trees of moderate quality with an estimated remaining life expectancy of at least 20 years Category C: Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter <150mm Category U: 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
TREE SURVEY SCHEDULE KEY	

Appendix D: Tree survey methodology

The tree survey

A baseline tree survey is carried out by a qualified arboriculturalist, from ground level, in accordance with the methodology set out in *BS5837:2012 Trees in relation to design, demolition and construction – Recommendations*.

The results of the tree survey are used to establish material constraints arising from existing trees and is intended to be used (along with any other relevant baseline data) to inform feasibility studies and design options. For this reason, the tree survey should be completed and made available to the design team independently of any specific proposals for the development of a site.

The tree survey will include all individual trees, tree groups, woodlands and hedges within influencing distance of the proposed development site. Trees will ordinarily be recorded as individuals but may be recorded as groups if there is no need to differentiate between the trees in the group.

The quality of each tree or group of trees is recorded by allocating it to one of four categories along with a sub-category in accordance with the *BS5837:2012* Cascade chart for tree quality assessment. A category rating of either A, **B**, **C** or **U** is allocated based on the condition of a tree or group of trees in its/their current surroundings. No consideration is given to any specific development proposal when allocating category ratings, category definitions are detailed below:

Category	Criteria
A	*Trees or groups which have high quality and value, are in good structural and physiological condition and are expected to have a useful life expectancy of at least another 40 years- indicated in green on the associated plans*
B	*Trees or groups which would be considered as category A trees but which are of lower value, poorer structural condition, or which are expected to have a useful life expectancy of a minimum of 20 years- indicated in blue on the associated plans*
C	*Trees or groups which are of low quality and value, trees currently in adequate condition to remain until new planting is established or are young trees with a stem diameter less than 150mm. Category C trees are expected to have a life expectancy of a minimum of 10 years- indicated in grey on the associated plans*
U	*Trees or groups in such a condition that any existing value would be lost within ten years and which should, in the current context, be removed for reasons of sound arboricultural management- indicated in red on associated plans*

BS5837:2012 Tree categorisation criteria

Sub categories are awarded in accordance with the following criteria:

Sub category	Inclusion criteria
1	*Trees with arboricultural value*
2	*Trees with landscape value*
3	*Trees with cultural or conservation (ecological) value*

BS5837:2012 Tree sub-category criteria

Data for all trees, groups and hedges within influencing distance of the proposed development site is recorded in a tree survey schedule in accordance with *BS5837: 2012*. Trees are not physically tagged (unless we are instructed to do so) but are assigned individual numbers that are used to identify the tree, tree group, woodland or hedgerow throughout the report, within the Tree Survey Schedule and on the associated plans. The following information is collected for each tree in the survey:

Tree or group number; Single or group category; Common name of species; Height in metres; Number of stems; Stem diameter; Clearance of crown from ground level in metres; Crown spread in cardinal directions; Age class; Physiological condition; Structural condition; Estimated remaining contribution in years; Preliminary management recommendations; Tree categorisation; Radius in metres of the **R**oot **P**rotection **A**rea (**RPA**).

All measurements are taken using a stem diameter measuring tape, laser clinometer and laser distance measuring device. Where site constraints prevent the use of a measuring device the measurement is estimated and is suffixed with a '#' symbol in the tree survey schedule.

Root protection areas

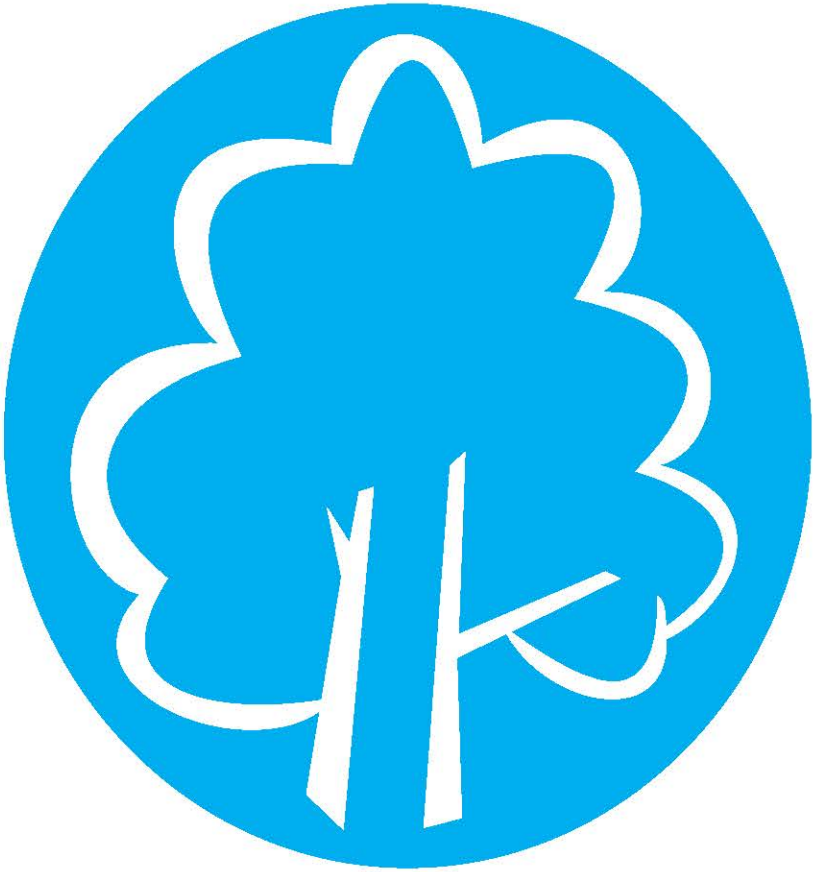
Below ground constraints or Root Protection Areas (**RPAs**) for all trees included in the site survey are calculated in accordance with *BS5837:2012 4.6.1*. The RPA is a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure should be treated as a priority, the RPA does not represent the entire root system of a tree.

The RPAs are plotted onto the associated plans as a circle centred on the base of each tree stem with a radius of 12 times the trees stem diameter measured at 1.5 metres above ground level. For tree groups the largest stem diameter in the group is used to set the RPA.

If deemed appropriate by the arboricultural surveyor the individual stem diameters of trees within a group may be taken in order to set an accurate group RPA boundary whilst still recording all trees within the group as a single group record.

BS5837:2012 4.6.2 requires that where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically the RPA should be modified to produce a polygon of an equivalent area. Any trees on site identified as requiring a modification to their RPA are indicated within the AIA.

Appendix E: Example tree protection warning sign



PROTECTIVE FENCING. THIS FENCING MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND DRAWINGS FOR THIS DEVELOPMENT.

TREE PROTECTION AREA

KEEP OUT !

(TOWN & COUNTRY PLANNING ACT 1990)

TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A TREE PRESERVATION ORDER.

CONTRAVENTION OF A TREE PRESERVATION ORDER MAY LEAD TO CRIMINAL PROSECUTION

ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY