



Net World Sports, Bryn Lane

Wrexham

ARBORICULTURAL METHOD STATEMENT

8304.02.001

Version 3.0, June 2021

TEP
Genesis Centre
Birchwood Science Park
Warrington
WA3 7BH

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Document Control

Document Title	Arboricultural Method Statement
Prepared for	Overlord Ltd (c/o Net World Sports Ltd)
Prepared by	The Environment Partnership (TEP) Ltd
Document Ref.	8304.02.001
Date	June 2021
Author	Heather Eilbeck
Checked	Jonathan Smith
Approved	Robin Grimes

Amendment History					
Version	Date	Modified by	Approved by	Reason(s) for issue	Status
0.1	20/05/2021	HEE	JGS	Checking	Draft
1.0	21/05/2021	HEE	RMG	Approval	Superseded
2.0	03/06/2021	HEE	JGS	Updated Layout	Superseded
3.0	16/06/2021	HEE	JGS	Updated Layout and Tree Removal/Retention	Final

Net World Sports, Bryn Lane, Wrexham

Arboricultural Method Statement

Site Overview and Operation Sign-Off

This document comprises 2 separate Method Statements together with supporting plans and has been produced to support a Reserved Matters Planning Application. The detail and requirements of this Method Statement must inform the production of all relevant tender documents and instructions to contractors.

Failure to adhere to the correct sequence, manner and timing of operations detailed below may result in irremediable damage to trees, and thereby breach of planning consent. All retained trees are protected and damage or removal could result in a stop notice or prosecution.

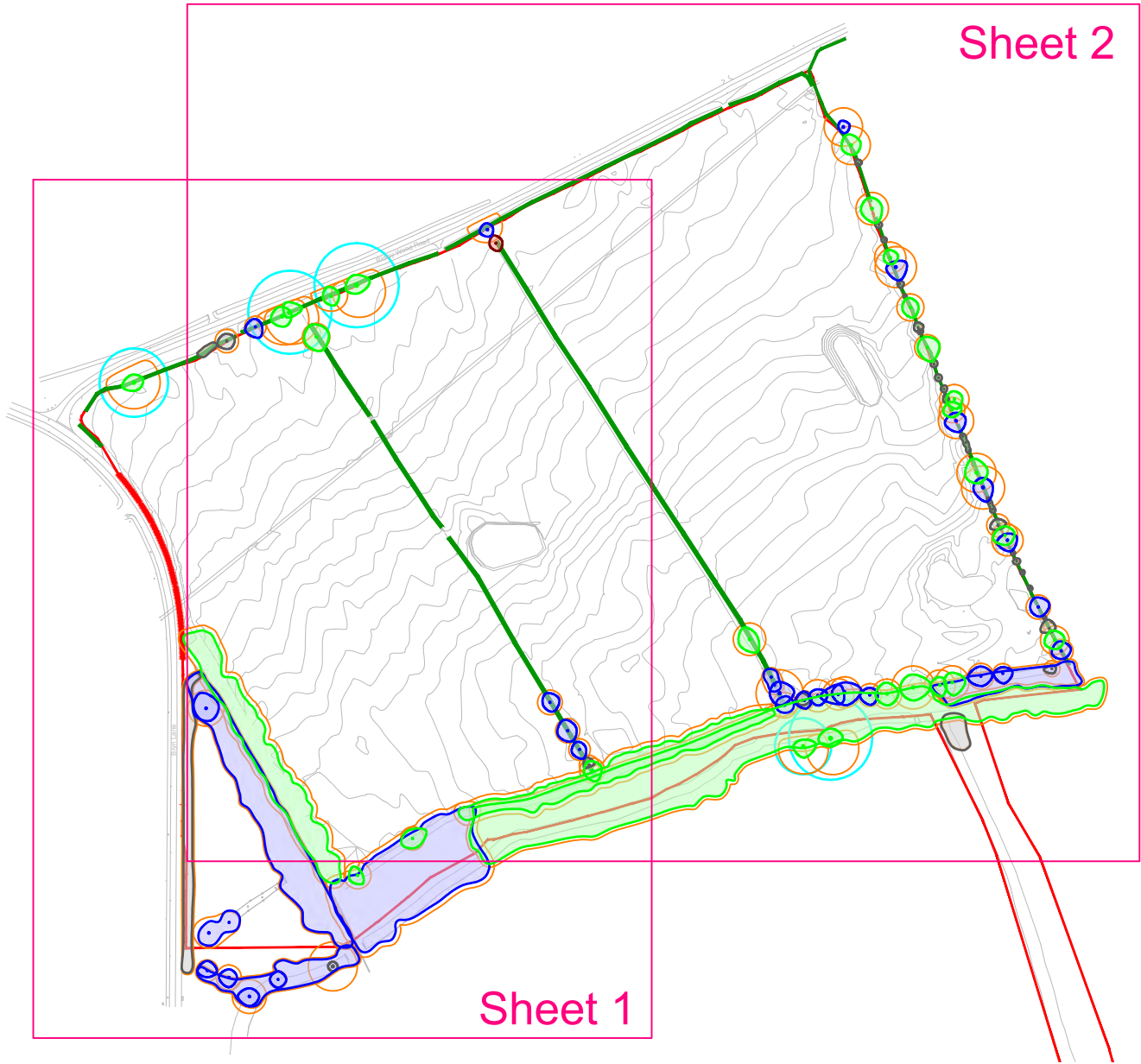
GENERAL TERMS

- A. This document should be reproduced in its entirety, in colour and at A3 size.
- B. The Site Manager will read and understand this Method Statement. It will be the responsibility of the Site Manager to ensure compliance with this Method Statement.
- C. A copy of this Method Statement will be made available for inspection on site and introduced to all relevant contractors.
- D. An Arboricultural Contractor will be appointed to undertake the removal of trees.
- E. An Arboricultural Consultant will be appointed to supervise activities as specified by this document. They must be provided with contact details for the site manager and notified of the date of commencement of works.
- F. All areas that are protected by Tree Protection Fencing will be collectively defined as a **Construction Exclusion Zone** (CEZ). Access, works or storage within the CEZ will be prohibited unless specified by this AMS.
- G. If unexpected large roots (>25mm diameter) are encountered or if additional pruning is required the arboricultural consultant will be contacted.
- H. There will be no level changes within the CEZ of any retained tree unless specified in this AMS.
- I. The Site Manager will be responsible for contacting the Arboricultural Consultant as required by this AMS or any requirement to enter a protected area arises.
- J. Each of the elements within this Method Statement will be signed-off by the arboricultural consultant in the Operations Sign-off inset on this sheet. A copy will be retained by the Site Manager and the Arboricultural Consultant.
- K. It will also be the responsibility of the appointed Arboricultural Consultant to undertake inspections no less than every 2 months to ensure compliance with the approved protection scheme. Any deviation from the approved scheme will be recorded below and reported to the site manager and local planning authority Tree Officer.

OVERVIEW OF OPERATIONS

1. APPOINTMENT OF ARBORICULTURAL CONSULTANT
2. APPOINTMENT OF ARBORICULTURAL CONTRACTOR
3. TREE AND HEDGEROW WORKS
4. SIGN OFF BY ARBORICULTURAL CONSULTANT
5. SETTING OUT OF TREE AND HEDGE PROTECTION
6. INSTALLATION OF TREE AND HEDGE PROTECTION
7. SIGN OFF BY ARBORICULTURAL CONSULTANT
8. COMPLETION OF CONSTRUCTION WORKS
9. REMOVAL OF PROTECTION MEASURES
10. FINAL SIGN OFF BY ARBORICULTURAL CONSULTANT

NB. Arboricultural consultant to visit site not less than every 2 months to monitor tree protection measures and report to LPA.



KEY

[This drawing must be reproduced in colour]

- Trees and Groups
- Hedgerow
- Root Protection Area (RPA)
- Veteran Tree Buffer
(15 x stem diameter at 1.5m in accordance with Wrexham County Borough Council's Local Planning Guidance Note 17)
- Application Boundary

Tree Quality Categorisation

(Based on BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations)

- Category A
(High quality)
- Category B
(Moderate quality)
- Category C
(Low quality)
- Category U
(Unsuitable for retention)
- Hedgerow
(Not categorised)

NOTES:

A full and detailed version of the Tree Constraints Plan is appended to this document within Appendix A. This includes feature references and information regarding TPOs that are applicable to this site.

This drawing should be read in conjunction with the full Tree Constraints Plan (Appendix A) and the respective Arboricultural Survey Data (Appendix B).

Notes:

Notes section with 15 horizontal dotted lines for recording observations or additional information.

Arboricultural Consultant:

Telephone: | Email:

Tree and Hedgerow Works Date: Initials:
Tree and Hedgerow Protection Date: Initials:

The above Method Statement elements have been discharged in full to the best of my knowledge and professional assessment. Where there has been any deviation from the specification, I am satisfied that this has not been injurious to retained trees and that all such deviations have complied with the spirit of the instruction insofar as was reasonably practicable or were approved in advance by the proper authority.

Signed:

Signature line for the Arboricultural Consultant.



Rev	Description	Drawn	Approved	Date
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Project
Net World Sports, Bryn Lane, Wrexham
Arboricultural Method Statement

Title
Site Overview and Operation Sign-off

Drawing Number
D8304.02.001

Drawn	Checked	Approved	Scale	Date
HEE	JGS	RMG	1:4000 @ A3	20/05/2021

Tree and Hedgerow Works

All tree removal and pruning works will be undertaken according to British Standard 3998:2010 by a suitably qualified, experienced and insured arboricultural contractor.

This AMS must be read in conjunction with the following drawings:

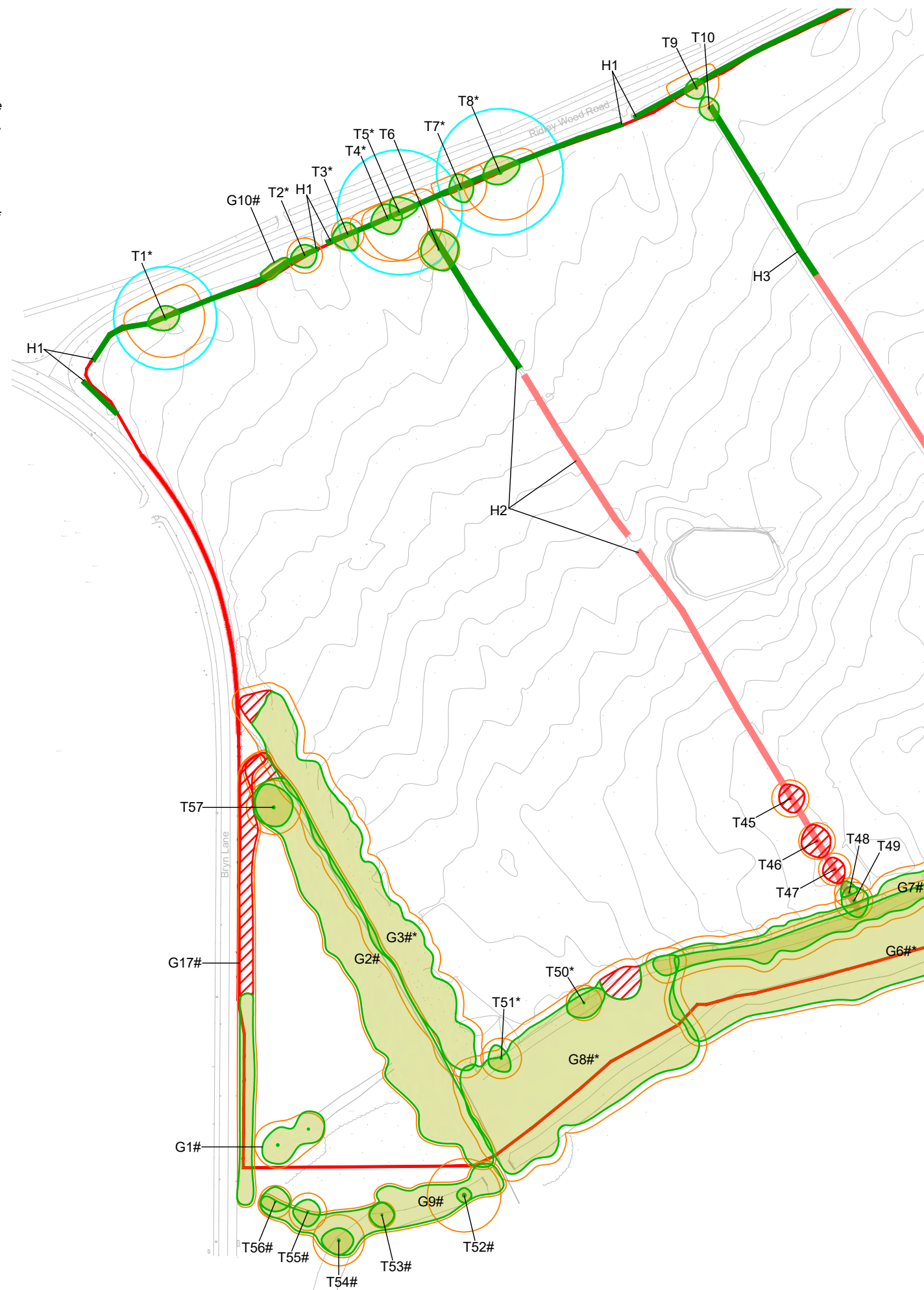
- *D8304.02.001 Site Overview and Operation Sign-off*
- *D8304.02.003 Tree and Hedgerow Works (Sheet 2 of 2)*

NESTING BIRD CHECK

1. If tree works are scheduled in period March to August inclusive, trees identified for removal and pruning will be checked by a suitably qualified ecologist for nesting birds 24hrs prior to any works.
2. Should any nesting birds be found or suspected during the course of the works, the advice for an ecologist will be required.

TREE AND HEDGEROW WORKS

3. Trees and hedges indicated by a **red outline and line hatch** or a **thick pink line** on the plan opposite and on drawing D8304.02.003 Tree and Hedgerow Works - Sheet 2 of 2 will be removed.
4. Trees to be removed will be marked with spray by the Arboricultural Consultant to assist with identification prior to the commencement of removal works.
5. Tree removal within G8 is likely to comprise a single large individual tree. It is likely that the majority of understorey trees shown within the area of removal opposite can be retained within the development. The Arboricultural Consultant will assess this on site when marking trees for removal.
6. Arisings will not be stored beneath the canopy of retained trees.
7. Plant and vehicles used for the tree works and storage of fuels and oils will not be permitted beneath the canopy of any retained tree or within its Root Protection Area (calculated as a circle with a radius 12 times the stem diameter).
8. Stumps within 5m of retained trees will be ground out or chemically treated and left in-situ (i.e. not excavated or pulled).
9. The stumps of removed trees located beneath the canopies of retained trees will be accessed by using temporary boards over the rooting areas of retained trees.
10. Where doubt exists over the appropriate treatment of trees, the appointed arboricultural consultant will be contacted prior to acting on assumption.
11. The completion of tree works according to this Method Statement will be verified by the appointed arboricultural consultant.



[This drawing must be reproduced in colour]

-  T1/G1 Trees
 -  H1 Hedgerow
 -  Root Protection Area (RPA)
 -  Veteran Tree Buffer
 -  Application Boundary
 -  # Approximate location
(Feature not shown on supplied topographical survey)
 -  * Tree Preservation Order No. 60, 1991

Trees and hedgerow to be retained and protected

-   Trees to be retained
 Hedgerow

Proposed tree and hedgerow works

-   Trees to be removed
-  Hedgerow to be removed

NOTE: This drawing should be read in conjunction with the respective Arboricultural Survey Data (Appendix A)



B	Amended Tree Retention/Removal and Text	HEE	JGS	16.06.2021
A	Amended Tree and Hedgerow Works Text	HEE	JGS	03.06.2021
Rev	Description	Drawn	Approved	Date



THE ENVIRONMENT PARTNERSHIP

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Project

Net World Sports, Bryn Lane, Wrexham
Arboricultural Method Statement

Title

Tree and Hedgerow Works Plan - Sheet 1 of 2

Drawing Number

D8304.02.002

Drawn HEE	Checked JGS	Approved RMG	Scale 1:2000 @ A3	Date 20/05/2021
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Tree and Hedgerow Protection

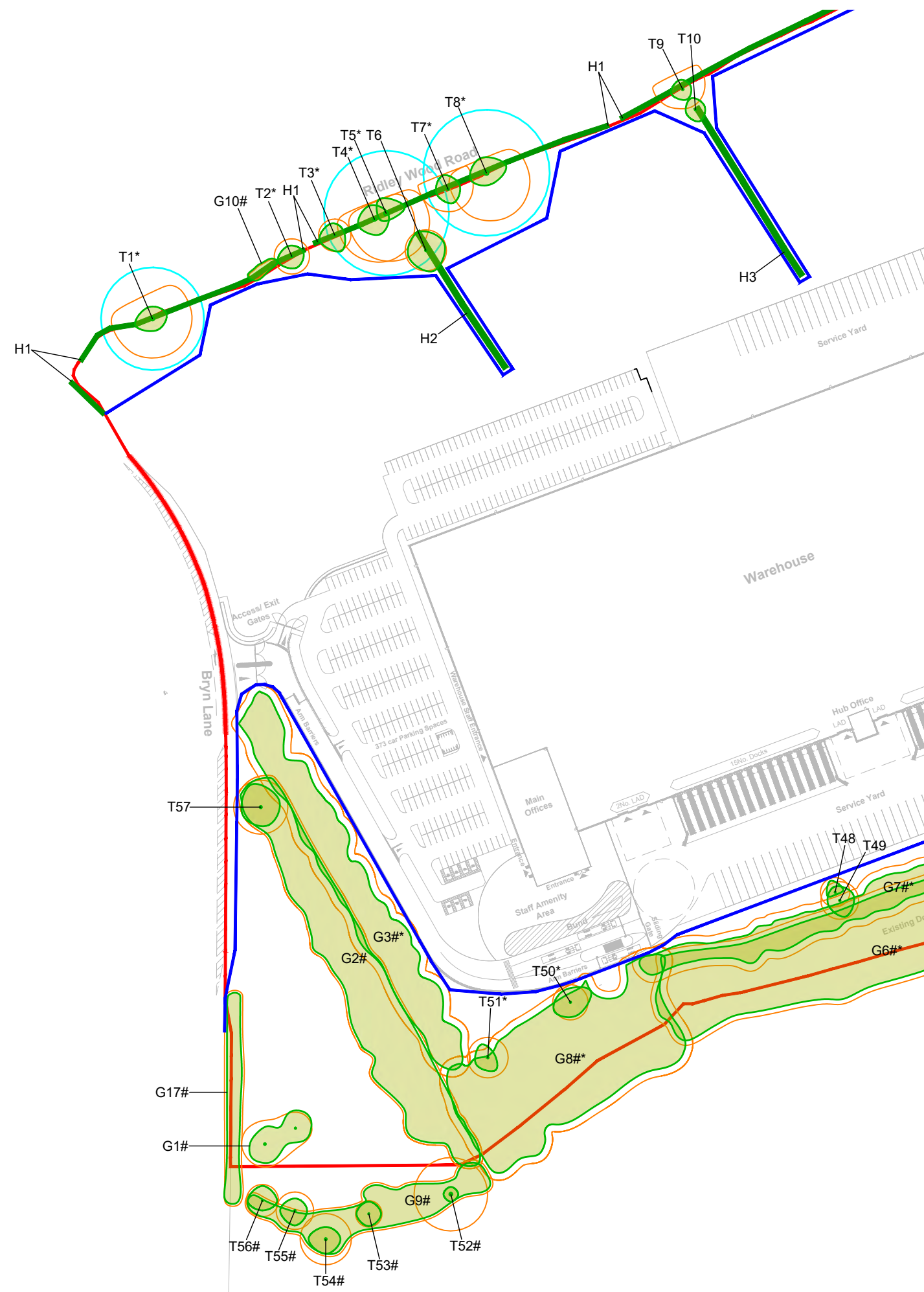
The detail and requirements of this Method Statement must inform the production of all relevant tender documents and instructions to contractors.

This AMS must be read in conjunction with the following drawings:

- *D8304.02.001 Site Overview and Operation Sign-off*
- *D8304.02.005 Tree and Hedgerow Protection - Sheet 2 of 2*
- *TEP.ARB.FEN.001 Tree Protection Fencing Specification (Soft Surfaces)*

TREE PROTECTION FENCING

1. Following the completion and sign-off of tree works, the Site Manager will arrange for tree protection fencing to be installed.
2. The alignment of fencing will be set out by a topographical surveyor using wooden pegs to the alignment shown opposite and on drawing D8304.02.005 Tree and Hedgerow Protection - Sheet 2 of 2 as a **thick blue line**. This **must be done accurately** to ensure that tree protection does not obstruct construction.
3. Northings and Eastings can be provided by TEP for setting out.
4. A contractor will be engaged to install the tree protection.
5. Fencing will be installed according to the specification shown in **Appendix D**. A large pdf of the sign to be laminated and affixed to alternate panels is appended to this document.
7. Tree protection will remain in situ for the duration of the construction. The fenced areas will be defined, during construction, as a Construction Exclusion Zone (CEZ). Within fenced areas, no access, storage, investigation, construction, excavation or level change will be permitted. Encroachment within any CEZ has the potential to result in damage to retained trees (including veteran trees) and, in a worst case scenario, lead to decline or death of a retained tree.
8. The installation and maintenance of tree protection measures according to this Method Statement will be verified by the appointed arboricultural consultant.
9. The fencing will be subject to inspection by the appointed arboricultural consultant not less than every two months. It will be the responsibility of the arboricultural consultant to report their findings to the site manager and local planning authority.



[This drawing must be reproduced in colour]

- | | |
|---|---|
|  | T1/G1 Retained Trees and Groups |
|  | H1 Retained Hedgerow |
|  | Root Protection Area (RPA) |
|  | Veteran Tree Buffer
(15 x stem diameter at 1.5m in accordance with Wrexham County Borough Council's Local Planning Guidance Note 17) |
|  | Application Boundary |
| # | Approximate location
(Feature not shown on supplied topographical survey) |
| * | Tree Preservation Order No. 60, 1991 |
|  | Tree Protection Fencing
(c. 1896.5m or 542 Heras Panels)
(Must be installed prior to works commencement) |



B	Updated Layout and Tree Protection Fencing Alignment	HEE	JGS	16.06.2021
A	Updated Layout	HEE	JGS	03.06.2021
Rev	Description	Drawn	Approved	Date



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Project

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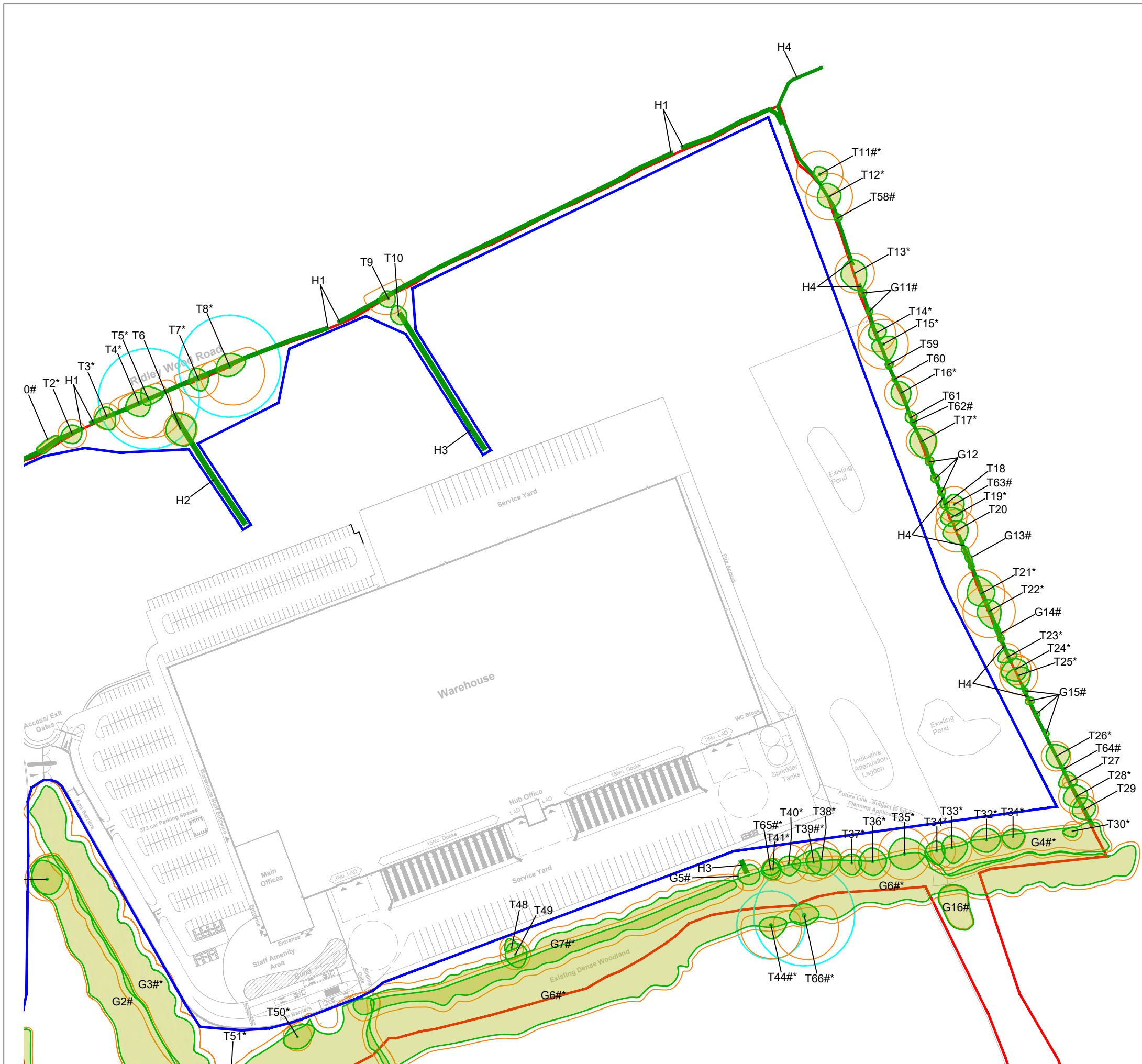
Title

Tree and Hedgerow Protection Plan - Sheet 1 of 2

Drawing Number

D8304.02.004

Drawn HEE	Checked JGS	Approved RMG	Scale 1:2000 @ A3	Date 20/05/2021
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KEY

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- T1/G1 Retained Trees and Groups
- H1 Retained Hedgerow
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- Veteran Tree Buffer
(15 x stem diameter at 1.5m in accordance with Wrexham County Borough Council's Local Planning Guidance Note 17)
- Application Boundary
- # Approximate location
(Feature not shown on supplied topographical survey)
- * Tree Preservation Order No. 60, 1991
- Tree Protection Fencing
(c. 1896.5m or 542 Heras Panels)
(Must be installed prior to works commencement)



B	Updated Layout and Tree Protection Fencing Alignment	HEE	JGS	16.06.2021
A	Updated Layout	HEE	JGS	03.06.2021
Rev	Description	Drawn	Approved	Date



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Project
Net World Sports, Bryn Lane, Wrexham
Arboricultural Method Statement
Title
Tree and Hedgerow Protection Plan - Sheet 2 of 2

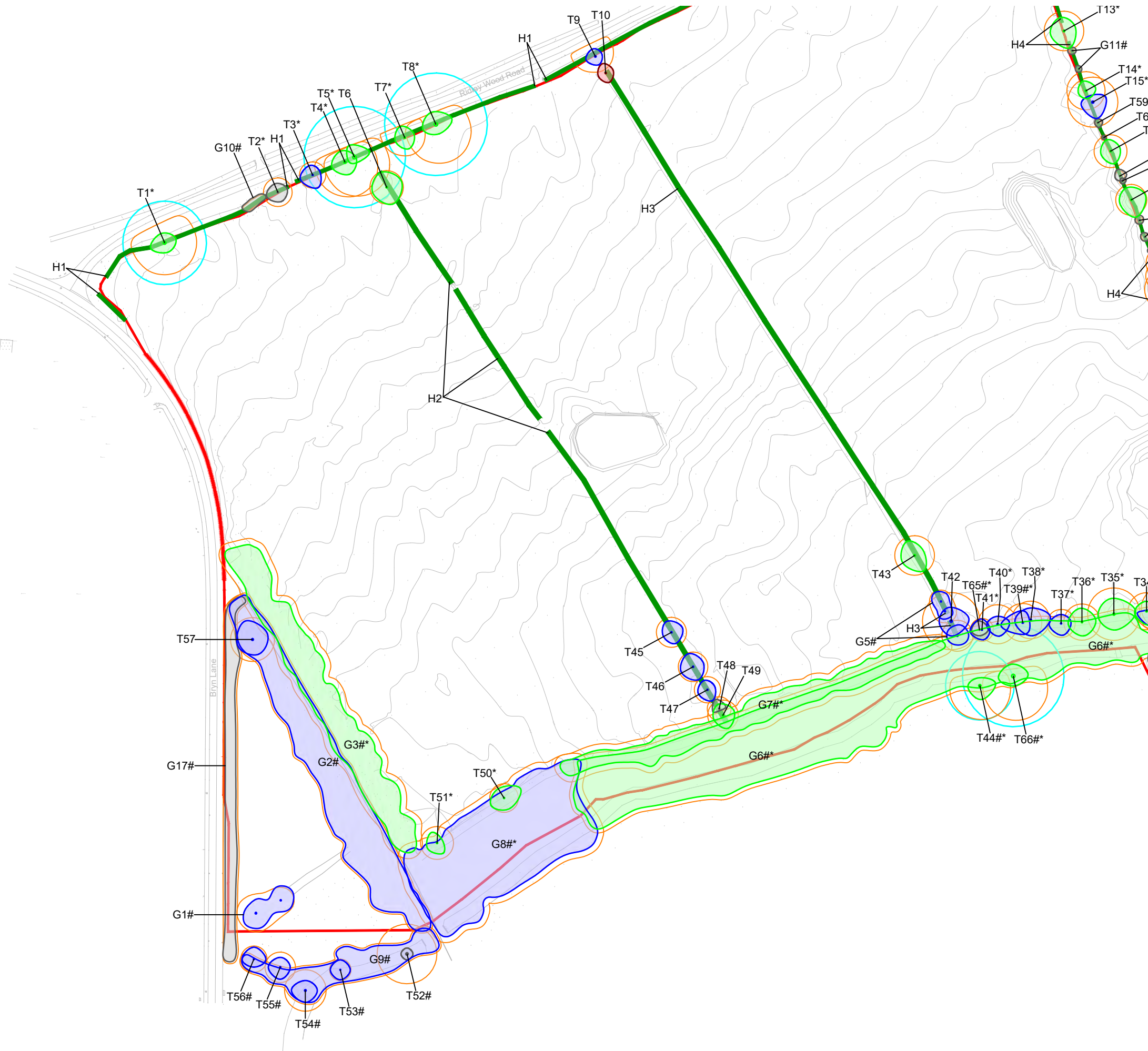
Drawing Number
D8304.02.005

Drawn	Checked	Approved	Scale	Date
HEE	JGS	RMG	1:2000 @ A3	20/05/2021



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APPENDIX A: Tree Constraints Plan



KEY

[This drawing must be reproduced in colour]

- T1/G1 Trees and Groups
- H1 Hedgerow
- Root Protection Area (RPA)
- Veteran Tree Buffer
(15 x stem diameter at 1.5m in accordance with Wrexham County Borough Council's Local Planning Guidance Note 17)
- Application Boundary
- # Approximate location
(Feature not shown on supplied topographical survey)
- * Tree Preservation Order No. 60, 1991

Tree Quality Categorisation

(Based on BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations)

- Category A
(High quality)
- Category B
(Moderate quality)
- Category C
(Low quality)
- Category U
(Unsuitable for retention)
- Hedgerow
(Not categorised)

NOTE: This drawing should be read in conjunction with the respective Arboricultural Survey Data (Appendix B).



A	Updated Application Boundary	HEE	JGS	13.05.2021
Rev	Description	Drawn	Approved	Date

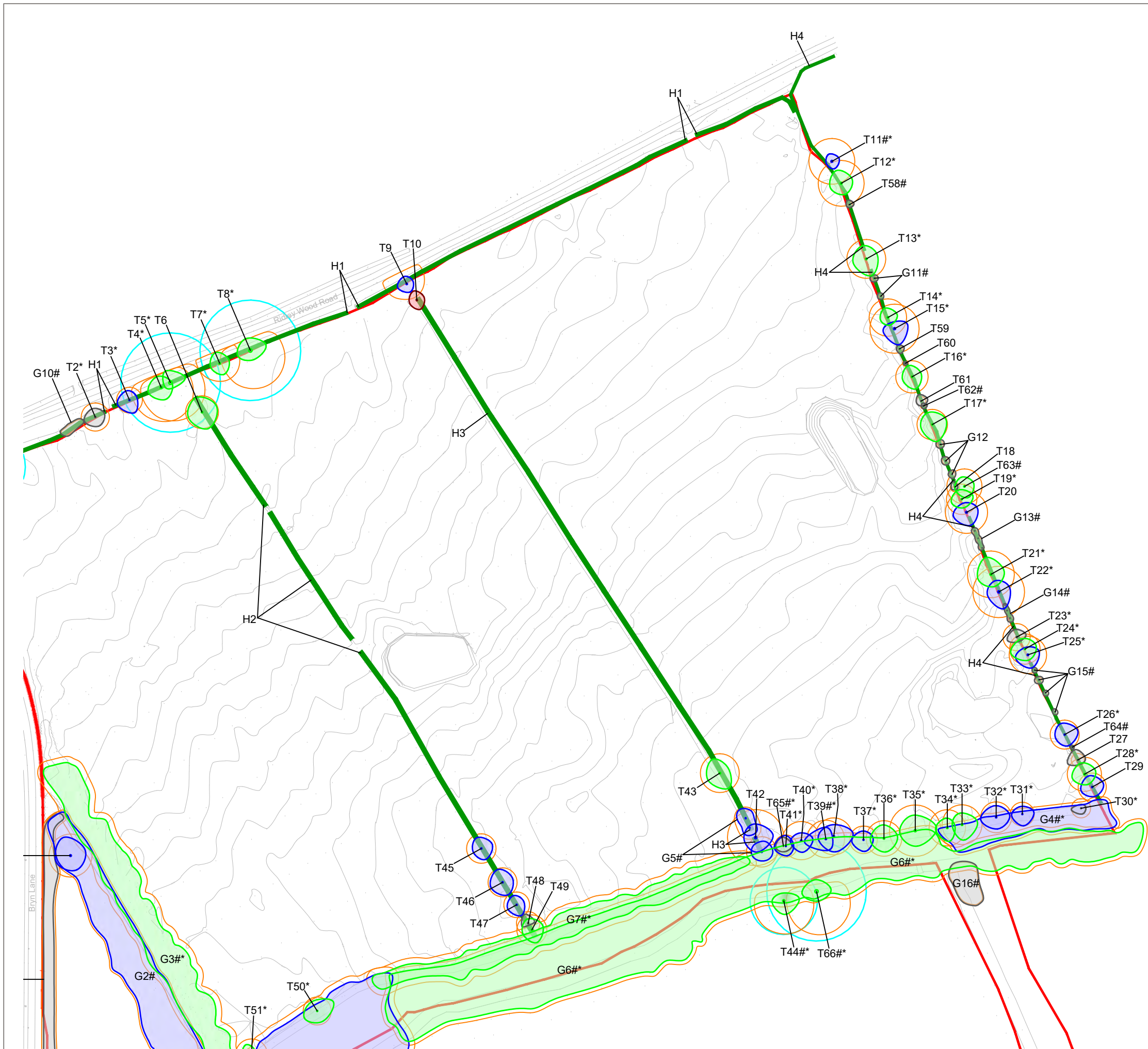


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Project
Net World Sports, Bryn Lane, Wrexham
Arboricultural Method Statement
Title
Tree Constraints Plan [BASELINE] - Sheet 1 of 2

Drawing Number
D8304.02.101

Drawn	Checked	Approved	Scale	Date
HEE	RMG	JGS	1:2000 @ A3	22/04/2021



KEY

[This drawing must be reproduced in colour]

- T1/G1 Trees and Groups
- H1 Hedgerow
- Root Protection Area (RPA)
- Veteran Tree Buffer
(15 x stem diameter at 1.5m in accordance with Wrexham County Borough Council's Local Planning Guidance Note 17)
- Application Boundary
- # Approximate location
(Feature not shown on supplied topographical survey)
- * Tree Preservation Order No. 60, 1991

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(Not categorised)

NOTE: This drawing should be read in conjunction with the respective Arboricultural Survey Data (Appendix B).



A	Updated Application Boundary	HEE	JGS	13.05.2021
Rev	Description	Drawn	Approved	Date



Genesis Centre, Birchwood Science Park, Warrington WA3 7BH
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Project
Net World Sports, Bryn Lane, Wrexham
Arboricultural Method Statement
Title
Tree Constraints Plan [BASELINE] - Sheet 2 of 2

Drawing Number	D8304.02.102			
Drawn	Checked	Approved	Scale	Date
HEE	RMG	JGS	1:2000 @ A3	22/04/2021



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APPENDIX B: Arboricultural Data Sheets



Surveyor Heather Eilbeck
 Survey Date 14.04.2021
 Site Net World Sports, Bryn Lane, Wrexham
 Drawing Ref D8304.02.101-102

Italicised Feature Ref: Inspection of this feature was restricted
Italicised Values: Feature value was estimated

APPENDIX B: Arboricultural Survey Data Sheets

Ref	Species	Height	Canopy Ground Clearance	Stem Diameter (or range)	No. of stems/ individuals	Crown Spread North	Crown Spread South	Crown Spread East	Crown Spread West	Lowest Branch Height	Lowest Branch Direction	Maturity	Condition	Comments on form, condition, health and significant defects	Management recommendations in current context	BS 5837 Quality Category	Estimated Remaining Contribution
		(m)	(m)	(mm)	arising below 1.5m	(m)	(m)	(m)	(m)	(m)	(N,S,E,W)	Young, Middle Age, Mature	Good, Fair, Poor, Veteran			A,B,C,U (1,2,3)	Long, Medium, Short, Very Short
Trees																	
T1	Pedunculate oak	9.0	2.5	1400	1	5.0	5.0	6.0	7.5	2.5	E	Mature	Veteran	Good form. Balanced crown displaying several veteran features. Multi-stem union at 2m with severe cavity extending up scaffold branches. Minor to moderate deadwood. Previous broken deadwood and limbs. Minor ivy growth. Potential bat habitat. Located within roadside hedge. TPO No. 60, 1991 - T1.		A , 1, 2, 3	Long
T2	Pedunculate oak	7.0	2.5	600	1	4.5	5.0	5.0	6.0	2.0	NW	Middle Age	Poor	Reasonable crown form, previously lifted. Central leader has failed in the past and has shared dominance has been assumed by surrounding branches. Minor to moderate deadwood. Sparse canopy. Minor ivy growth. Some habitat value. Located within roadside hedge. TPO No. 60, 1991 - T2.		C , 1, 3	Medium
T3	Pedunculate oak	6.0	2.0	550	1	5.0	7.0	4.0	6.5	2.0	NE	Middle Age	Fair	Reasonable form. Several previously broken branches. Located within roadside hedge. Stem leans to south-west. TPO No. 60, 1991 - T3.		B , 1, 2	Long
T4	Pedunculate oak	8.0	2.0	1200	1	6.0	6.5	6.0	7.0	2.0	NE	Mature	Fair	Squat form due to previous crown reduction. Several large, open wounds visible. Potential bat habitat. Heavily ivy clad upper limbs. Located within roadside hedge. TPO No. 60, 1991 - T4.		A , 1, 2, 3	Long
T5	Pedunculate oak	8.0	2.0	1700	1	6.5	3.0	8.0	3.5	2.0	SE	Mature	Veteran	Asymmetric crown due to large failure. Large concrete filled stem cavity at 2m. Major bark loss associated with cavity. Minor dieback of eastern crown. Moderate to major deadwood in canopy. Heavily ivy clad stem. Canopy biased to east. Located within roadside hedge. TPO No. 60, 1991 - T5.		A , 1, 2, 3	Long
T6	Pedunculate oak	11.0	2.0	700	1	8.0	9.0	8.0	7.5	2.0	N	Mature	Good	Excellent form. Previous mechanical damage on underside of lower limbs. Located within field boundary hedge. No major defects noted.		A , 1, 2	Long
T7	Pedunculate oak	9.0	3.0	800	1	6.0	6.0	5.0	5.0	3.0	W	Mature	Good	Bifurcate stem union at 2m but with good overall form. Ivy clad stem. Visible cavity opening at 2m just below large union but known to extend both up and down the stem. Located within roadside hedge. Failed lower limbs. Crown lifted fieldside with remnant stubs. Vigorous canopy. TPO No. 60, 1991 - T6.		A , 1, 2	Long
T8	Pedunculate oak	12.0	2.0	1720	1	6.5	5.0	8.5	7.0	3.0	NW	Mature	Veteran	Major stem wound with associated fire damage on south side of stem. Concrete filled cavity at 2.5m at multi-stemmed union. Potential bat habitat. Minor to moderate deadwood. Heavily ivy clad. Vigorous canopy. TPO No. 60, 1991 - T7.		A , 1, 2, 3	Long
T9	Pedunculate oak	9.0	2.0	760	1	4.0	4.5	3.5	5.0	2.0	N	Mature	Fair	Reasonable form. Minor to moderate deadwood. Slightly reduced upper canopy. Enlarged buttress formation on western side; a likely response to disturbance by livestock. Small amount of tip dieback. Large remnant stub of failed branch on south-west side of stem. Heavily ivy clad. Located within roadside hedge.		B , 1, 2	Long
T10	Pedunculate oak	10.0	2.0	620	1	5.0	5.0	4.0	4.0	2.5	N	Middle Age	Poor	Moribund tree with significantly reduced amount of live buds and foliage remaining. Ivy clad stem. Occluding cavities. Bat potential. Habitat value. Located at end of field boundary hedge.		U	Very Short
T11	Pedunculate oak	9.0	2.0	980	1	4.0	4.0	4.0	3.0	2.0	NE	Mature	Fair	Third party tree on adjacent land. Rooted on edge of pond. Cavity at 2m, extent unknown. Asymmetrical canopy that is biased to east and south-east. Inspection restricted by boundary hedge and lack of access. TPO No. 60, 1991 - T8.		B , 1, 2	Long
T12	Pedunculate oak	14.0	2.0	980	1	7.0	6.0	6.0	6.0	2.0	S	Mature	Good	Third party tree on adjacent land. Good form, balanced crown. Vigorous tree. Previous large branch failure. Minor stem and buttress wounding. Light compaction form cattle grazing under canopy. Rooted close to edge of pond. Large bat/bird box on east side of stem. Inspection restricted by boundary hedge and lack of access. TPO No. 60, 1991 - T9.		A , 1, 2	Long
T13	Pedunculate oak	10.0	2.0	830	1	7.0	9.0	6.0	7.0	2.5	S	Mature	Good	Excellent form, balanced crown. Minor deadwood. Light compaction by livestock adjacent to stem. Boundary tree within small hedgerow gap. TPO No. 60, 1991 - T11.		A , 1, 2	Long



Surveyor Heather Eilbeck
 Survey Date 14.04.2021
 Site Net World Sports, Bryn Lane, Wrexham
 Drawing Ref D8304.02.101-102

Italicised Feature Ref: Inspection of this feature was restricted
Italicised Values: Feature value was estimated

APPENDIX B: Arboricultural Survey Data Sheets

Ref	Species	Height	Canopy Ground Clearance	Stem Diameter (or range)	No. of stems/ individuals	Crown Spread North	Crown Spread South	Crown Spread East	Crown Spread West	Lowest Branch Height	Lowest Branch Direction	Maturity	Condition	Comments on form, condition, health and significant defects	Management recommendations in current context	BS 5837 Quality Category	Estimated Remaining Contribution
		(m)	(m)	(mm)	arising below 1.5m	(m)	(m)	(m)	(m)	(m)	(N,S,E,W)	Young, Middle Age, Mature	Good, Fair, Poor, Veteran			A , B , C , U (1,2,3)	Long, Medium, Short, Very Short
T14	Pedunculate oak	9.0	2.0	800	1	5.0	4.0	5.0	4.0	2.0	S	Mature	Good	Third party tree adjacent to boundary hedge. Slight asymmetric crown due to neighbouring tree. Previously crown reduced on western side. Minor cavities in scaffold branches. Potential bat habitat. Flailed lower limbs with epicormic growth evident. Inspection restricted by lack of access and boundary hedge. TPO No. 60, 1991 - T12.		A , 1, 2, 3	Long
T15	Pedunculate oak	9.0	2.0	1050	1	3.5	8.5	7.0	6.0	2.0	S	Mature	Fair	Third party tree adjacent to boundary hedge. Good form. Large column of decay within main stem, the opening of which has been partially covered with rubber matting. Light soil compaction by livestock adjacent to stem. Cavity at 3m on southern side. Potential bat habitat. Potential owl habitat. Bird box on south-eastern lower stem. Inspection restricted by boundary hedge and lack of access. TPO No. 60, 1991 - T13.		B , 1, 3	Long
T16	Pedunculate oak	8.0	2.0	690	1	6.0	6.5	5.0	5.0	2.0	S	Middle Age	Good	Boundary tree within hedge. Excellent form, balanced crown. Minor deadwood. Ivy clad stem. No visible defects, although heavily ivy clad. Bat box on east side. TPO No. 60, 1991 - T14.		A , 1, 2	Long
T17	Pedunculate oak	8.0	2.0	650	1	6.5	9.0	7.5	6.0	3.0	S	Middle Age	Good	Squat, balanced crown. Minor deadwood. Base obscured by vegetation. Dead ivy vines on stem. Canopy biased to south. Bird box on southern lower stem. Pruned limbs over western field with dead/dying remnant stubs evident. TPO No. 60, 1991 - T15.		A , 1, 2	Long
T18	Common ash	8.0	2.0	200	1	3.0	1.5	1.5	2.0	2.0	W	Middle Age	Fair	Balanced crown but with slight reduction in density. Compaction in rooting area by livestock. Likely infection of Chalara Ash Dieback disease due to heavy key retention and deadwood and dieback evident in south-eastern canopy.		C , 1	Short
T19	Pedunculate oak	11.0	2.0	650	1	5.0	4.5	6.0	5.5	2.0	SW	Middle Age	Good	Good form, slight asymmetry of crown. Compaction of rooting area by livestock to east of stem. Bark wound on south-west side/ Previously failed limbs. Potentially third party tree. TPO No. 60, 1991 - T16.		A , 1, 2	Long
T20	Pedunculate oak	9.0	2.0	900	1	5.0	7.0	6.0	7.0	2.0	NE	Mature	Fair	Previously crown reduced and allowed to regrow. Decay at regrowth points. Small cavity opening at 2.5m on north side. Bird boxes on north side of stem. Minor ivy growth. Twisted stem. Potentially third party tree.		B , 1, 2	Long
T21	Pedunculate oak	12.0	2.0	1000	1	9.0	6.5	7.0	7.0	2.0	S	Mature	Fair	Bifurcate stem union at 2m. Decay at union extending up southern scaffold branch. Potential bat habitat. Located within field boundary hedge. Small amount of moderate to major deadwood. Crossing and rubbing limbs. TPO No. 60, 1991 - T17.		A , 1, 2	Long
T22	Pedunculate oak	9.0	2.0	1100	1	6.0	9.0	6.0	6.0	2.0	E	Mature	Fair	Slight asymmetric crown to north due to adjacent oak with canopy biased to south. Minor deadwood throughout. Ivy clad stem. Potential bat habitat. Located within field boundary hedge. Bird box on eastern side of stem. TPO No. 60, 1991 - T18.		B , 1, 2	Long
T23	Pedunculate oak	10.0	2.0	580	1	4.0	2.5	5.0	5.0	2.0	NE	Middle Age	Fair	Poor form. Natural lion's tailing of upper branches, indicative of the beginning of natural entrenchment. Vigorous lower crown. Pruned lower limbs. Located within field boundary hedge. TPO No. 60, 1991 - T19.		C , 1	Medium
T24	Pedunculate oak	13.0	2.0	650	1	5.5	6.0	6.0	7.5	4.0	SW	Mature	Good	Good form. Previously crown raised to 5m. Minor shade deadwood. Light compaction and buttress damage by livestock to east of stem. Bird box on lower south-eastern stem. Occluding cavity evident. Wooden fence slat occluding into western lower stem. Previous removal of 1 major branch on east side and 2 moderate branches on west side with some occlusion and regrowth evident from wounds. Potentially third party tree. TPO No. 60, 1991 - T20.		A , 1, 2	Long
T25	Pedunculate oak	12.0	2.0	800	1	4.0	7.0	6.0	6.5	2.5	E	Mature	Good	Slight asymmetric crown and stem lean to south. Crown raised previously, several wounds fully occluded. Light compaction in rooting area to east of stem. Previously failed branches evident. Wooden fence slats attached to lower western stem. Potentially third party tree. TPO No. 60, 1991 - T21.		B , 1, 2	Long



Surveyor Heather Eilbeck
 Survey Date 14.04.2021
 Site Net World Sports, Bryn Lane, Wrexham
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APPENDIX B: Arboricultural Survey Data Sheets

Ref	Species	Height	Canopy Ground Clearance	Stem Diameter (or range)	No. of stems/ individuals	Crown Spread North	Crown Spread South	Crown Spread East	Crown Spread West	Lowest Branch Height	Lowest Branch Direction	Maturity	Condition	Comments on form, condition, health and significant defects	Management recommendations in current context	BS 5837 Quality Category	Estimated Remaining Contribution
		(m)	(m)	(mm)	arising below 1.5m	(m)	(m)	(m)	(m)	(m)	(N,S,E,W)	Young, Middle Age, Mature	Good, Fair, Poor, Veteran			A,B,C,U (1,2,3)	Long, Medium, Short, Very Short
T26	Pedunculate oak	10.0	2.0	620	1	6.0	6.0	7.0	5.0	2.0	NE	Middle Age	Fair	Reasonable form. Previously crown reduced and allowed to regrow. Located within and base obscured by field boundary hedge. Bird and bat boxes on northern side of stem and on top of southernmost lowest limb. Previous limb removals with remnant stubs evident. Good vigour. TPO No. 60, 1991 - T22.		B , 1, 2	Long
T27	Common ash	12.0	2.5	280	1	5.5	2.5	4.0	5.5	2.0	NE	Middle Age	Fair	Tree located within field boundary hedge. Likely infection of Chalara Ash Dieback disease due to heavy retention of keys. Ash Flower Gall Mite also present.		C , 1	Short
T28	Pedunculate oak	13.0	2.0	730	1	6.0	5.5	6.0	6.5	2.0	W	Mature	Good	Reasonable form, slight crown bias to south-east. Crown raised over western field with remnant stubs evident. Ivy growth on limbs. Bifurcate at c. 4m. 1 major deadwood piece in canopy from previously failed limb. Bird box on east side of stem. Large pruning stubs evident. Third party tree. TPO No. 60, 1991 - T23.		A , 1, 2	Long
T29	Pedunculate oak	12.0	2.0	600	1	6.0	5.0	6.0	6.0	2.0	N	Middle Age	Good	Basal stem bow to north. Compaction in rooting area to east of stem. Suppressed to north by adjacent oak. Moderate deadwood in canopy. Bird box on lower northern side of stem. Third party tree.		B , 1, 2	Long
T30	Common hawthorn	6.0	1.5	410	2	2.0	3.0	2.5	5.0	1.5	N	Mature	Fair	Bifurcate stem union at 0.25m. Rooted on 0.5m level change dropping to south of stem. Crown raised by failing to leave a top-heavy appearance. Tree has previously started to uproot and is weighted to the south into the adjacent wooded area. TPO No. 60, 1991 - W1.		C , 1	Long
T31	Pedunculate oak	12.0	3.0	510	1	4.0	6.0	6.0	5.5	2.5	NE	Middle Age	Good	Good form, balanced crown. Rooted on edge of level change (1m drop directly south of stem). Small broken ranches on northern side. Bird box on northern side of lower stem. TPO No. 60, 1991 - W1.		B , 1, 2	Long
T32	Pedunculate oak	10.0	3.0	660	1	6.0	6.0	7.0	8.0	3.0	S	Middle Age	Fair	Reasonable form, slight asymmetry due to adjacent trees. Longitudinal cavity extending from base up main stem, moderate decay within and hollowing of reaction wood when sounded. Moderate deadwood. Rooted on edge of level change (1m drop directly south of stem). Redundant bird/bat box in western lower canopy. TPO No. 60, 1991 - W1.		B , 1, 2, 3	Long
T33	Pedunculate oak	12.0	2.5	850	1	6.0	8.0	8.0	5.0	2.0	S	Mature	Fair	Good form, balanced crown. Rooted on edge of level change (1m drop directly south of stem). Moderate deadwood in lower western canopy and mechanical damage on underside of northern branches. TPO No. 60, 1991 - W1.		A , 1, 2	Long
T34	Pedunculate oak	11.0	2.5	778	2	5.0	7.0	4.0	6.0	2.5	S	Mature	Good	Good overall form, basally bifurcate with strong union. Rooted on edge of level change. Minor deadwood. TPO No. 60, 1991 - W1.		A , 1, 2	Long
T35	Pedunculate oak	11.0	3.5	1100	2	8.0	8.0	11.0	8.0	4.0	NW	Mature	Good	Good form, balanced crown. Rooted on edge of land change. Moderate deadwood to 100mm. Epicormic growth on south side of stem. Owl box on north-eastern lower stem. TPO No. 60, 1991 - W1.		A , 1, 2	Long
T36	Pedunculate oak	12.0	2.5	760	2	7.0	7.0	7.0	7.0	2.5	N	Mature	Good	Good form, balanced crown. Previous branch failures with remnant stubs evident. Good vigour. No major defects noted. TPO No. 60, 1991 - W1.		A , 1, 2	Long
T37	Pedunculate oak	11.0	2.5	589	2	4.5	6.0	5.0	6.0	2.5	N	Middle Age	Fair	Bifurcate stem union at 0.5m with tight stem union. Asymmetric crown due to proximity of adjacent oak. Minor tip dieback. Ivy clad stem. Moderate deadwood. TPO No. 60, 1991 - W1.		B , 1	Long
T38	Pedunculate oak	12.0	3.0	790	2	6.0	8.0	10.0	8.0	3.5	NW	Mature	Fair	Good form, balanced crown. Large stem cavity at 3m. Moderate deadwood throughout. Some large previous limb failures evident in central canopy. Owl habitat. TPO No. 60, 1991 - W1.		B , 1, 2, 3	Long
T39	Pedunculate oak	9.0	3.5	800	2	6.0	6.0	3.5	11.0	4.0	W	Mature	Fair	Asymmetric crown due to competition from adjacent oak. Stem leans south-west c. 30 degrees. Cracks/splits in scaffold. Minor exposure of roots on north side. Laetiporus sulphureus previously seen protruding from buttresses, but not visible during resurvey due to time of year. Bifurcate at c. 2.5m. Ivy growth on stem. TPO No. 60, 1991 - W1.		B , 1, 2	Long



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		(m)	(m)	(mm)	arising below 1.5m	(m)	(m)	(m)	(m)	(m)	(N,S,E,W)	Young, Middle Age, Mature	Good, Fair, Poor, Veteran			A,B,C,U (1,2,3)	Long, Medium, Short, Very Short
T40	Pedunculate oak	10.0	3.5	820	2	4.0	6.0	6.0	5.5	3.0	W	Mature	Fair	Reasonable form. Ivy clad stem. Stem leans c. 25 degrees south. Rooted on edge of level change. Minor to moderate deadwood. TPO No. 60, 1991 - W1.		B , 1, 2	Long
T41	Pedunculate oak	10.0	4.0	480	2	5.5	5.0	4.0	6.0	4.5	W	Middle Age	Good	Good overall form. Ivy clad main stem growing amongst epicormic shoot growth. Slight asymmetry of canopy to east. Minor deadwood. TPO No. 60, 1991 - W1.		B , 1	Long
T42	Pedunculate oak	17.0	4.5	1200	2	7.0	7.5	9.0	6.0	5.0	S	Mature	Fair	Leaning to east. Moderate squirrel damage. Moderate to major deadwood. Inonotus dryadeus previously found around entire basal circumference, none evident during resurvey due to time of year. Large end-weighted limb extending west. Moderate basal cavities. Sparse central leader that is also significantly taller than other limbs. Cankering and twisting of central leader in upper canopy, potentially caused by Hypoxylon Canker. Pruned limbs with large remnant stubs evident. Owl box on south side of stem.	Remove central leader down to nearest suitable growing point below area of infection and canker. Disinfect tools post-removal. Remove arisings from site and leave in sanitary brash pile for 6 months prior to processing to allow for fungal necrosis within arisings. Annual inspection of tree after works to monitor potential progression of Hypoxylon Canker and tree condition.	B , 1, 2	Long
T43	Pedunculate oak	10.0	1.5	830	2	8.0	9.0	5.0	7.0	2.0	S	Mature	Good	Excellent form with attractive, balanced crown. Bifurcate at 2.5m. Located within field boundary hedge. Multi-stemmed at 2m. Ivy clad stem.		A , 1, 2	Long
T44	Pedunculate oak	7.0	1.0	1150	2	4.0	7.0	8.0	6.0	2.0	S	Mature	Veteran	Balanced but squat crown. Major stem wound from base to 2.5m. Bifurcate form. Previous crown reduction. A particularly nice tree. Very vigorous canopy. Burred stems and limbs. TPO No. 60, 1991 - W1.		A , 1, 2, 3	Long
T45	Pedunculate oak	8.0	1.0	630	2	6.0	6.0	6.0	4.5	2.5	S	Middle Age	Good	Reasonable form but displaying minor apical dieback. Unusual fused branch structure in central crown; not thought to infer structural weakness. Drainage ditch located directly east of stem. Located within field boundary hedge. Minor deadwood and stubs.		B , 1, 2	Long
T46	Pedunculate oak	8.0	2.5	620	2	7.0	7.0	5.5	6.5	2.5	NW	Middle Age	Good	Good form balanced crown. Ivy clad stem and scaffolds. Minor shade deadwood in lower crown. Drainage ditch located directly east of stem. Some tip dieback evident. Bifurcate at c. 2m.		B , 1, 2	Long
T47	Pedunculate oak	8.0	2.0	550	2	5.0	6.0	4.0	5.0	2.0	NW	Middle Age	Fair	Twiggy crown growth indicating sub-optimal growing conditions. Ivy clad stem. Drainage ditch located directly east of stem. Bifurcate at c. 2.5m. Minor to moderate deadwood. Some tip dieback evident.		B , 1, 2	Medium
T48	Pedunculate oak	9.0	2.5	500	2	5.0	1.0	3.5	3.5	2.5	N	Middle Age	Fair	Asymmetric form due to suppression by adjacent oak. Drainage ditch located directly east of stem. Moderate deadwood.		C , 1, 2	Medium
T49	Pedunculate oak	11.0	2.5	640	2	6.0	7.0	6.0	5.0	2.5	NW	Middle Age	Good	Good crown shape and structural form. Drainage ditch located directly east of stem. Dead ivy vines on stem.		A , 1, 2	Long
T50	Pedunculate oak	13.0	4.0	600	2	5.5	6.0	9.5	7.5	4.0	NE	Middle Age	Fair	Bifurcate mid-stem. Balanced crown. Minor deadwood throughout with some major deadwood in lower to mid canopy. Good form. TPO No. 60, 1991 - W1.		A , 1, 2	Long
T51	Pedunculate oak	11.0	4.5	690	2	6.0	6.0	3.0	5.5	5.0	E	Middle Age	Good	Good form. Stem bulge at 1.5m, possibly caused by fibre buckling. Cavity opening visible at 1.3m on eastern side of stem extending downward. Animal activity evident from scratch marks. Moderate deadwood. TPO No. 60, 1991 - W1.		A , 1, 2	Long



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		(m)	(m)	(mm)	arising below 1.5m	(m)	(m)	(m)	(m)	(m)	(N,S,E,W)	Young, Middle Age, Mature	Good, Fair, Poor, Veteran			A,B,C,U (1,2,3)	Long, Medium, Short, Very Short
T52	Lombardy poplar	25.0	1.0	1250	1	3.0	3.0	3.0	3.0	1.0	N	Mature	Poor	Bifurcate stem union at 2.5m. Ivy clad stem restricting inspection of majority of tree. Stem leans to south-east. Large basal stem cavity evident on south side with decay and hollowing of stem evident up to 2.5m just below bifurcation union. Reasonably large birds nest/squirrel drey evident in cavity. Large previous limb failure on western stem just above bifurcation union at c. 3m, unable to see wound to assess for decay due to ivy and height. Physiologically in good condition, but structurally in poor condition. Unsuitable for retention within a proposed development, but some habitat and landscape value in current context.	Fell.	C , 1, 2, 3	Short
T53	Common ash	12.0	1.0	450	1	5.0	5.0	5.0	5.0	1.0	N	Middle Age	Good	Good form. Rooted on edge of wet ditch to south. Potential infection by Chalara Ash Dieback disease due to heavy retention of keys. Inspection heavily restricted by dense vegetation restricting access.		B , 1, 2	Medium
T54	Common ash	11.0	2.0	870	1	5.0	6.0	6.0	7.0	2.0	N	Mature	Good	Good form. Rooted on edge of wet ditch to east. Heavily ivy clad stem and central scaffold branches. Potential infection by Chalara Ash Dieback disease due to heavy key retention. Inspection heavily restricted by dense vegetation restricting access.		B , 1, 2	Medium
T55	Pedunculate oak	11.0	2.0	636	2	5.0	6.0	5.0	6.0	2.0	SE	Middle Age	Good	Two independently rooted stems forming a single, sinuous canopy outline. Both stems heavily ivy clad.		B , 1, 2	Long
T56	Pedunculate oak	9.0	1.0	550	2	6.0	4.0	6.0	6.0	2.0	SE	Middle Age	Good	Good form, single stem with balanced crown. Ivy clad stem.		B , 1, 2	Long
T57	Pedunculate oak	14.0	1.0	920	2	10.0	8.0	8.0	8.0	2.0	SE	Mature	Fair	More mature than rest of surrounding group, a visible boundary feature. Heavily ivy clad. Previous large limb failures evident, creating an asymmetrical canopy and leaving remnant major deadwood stubs and a large gap in south-eastern canopy.		B , 1, 2	Long
T58	Common ash	5.0	2.5	140	1	2.5	1.5	2.5	1.5	2.0	S	Middle Age	Good	Self-set tree located within field boundary hedge. Flailed lower limb leaving remnant stub.		C , 1	Medium
T59	Common ash	5.0	2.5	140	1	2.0	2.5	2.5	1.5	2.5	W	Middle Age	Good	Self-set tree located within field boundary hedge.		C , 1	Medium
T60	Common ash	5.0	2.5	120	1	1.0	1.0	1.0	1.0	2.5	W	Middle Age	Fair	Self-set tree located within field boundary hedge. Potential infection of Chalara Ash Dieback disease due to heavy key retention.		C , 1	Short
T61	Pedunculate oak	6.0	2.0	200	1	3.5	2.5	3.5	2.5	2.0	S	Middle Age	Good	Self-set tree located within field boundary hedge. Asymmetrical canopy that is biased to east and north.		C , 1	Long
T62	Common hawthorn	4.0	2.0	120	1	1.5	1.5	2.0	1.0	2.0	N	Middle Age	Good	Larger hawthorn tree within field boundary hedge.		C , 1	Long
T63	Pedunculate oak	11.0	2.0	750	1	5.0	6.0	5.0	5.0	3.0	NE	Mature	Good	Third party tree in adjacent field. Previous limb failures and pruned lower limbs. Fairly rounded canopy. No major defects noted. Inspection restricted by lack of access.		A , 1, 2	Long
T64	Common hawthorn	4.0	1.5	90	1	1.0	1.0	1.0	1.0	1.5	N	Young	Good	Tree within field boundary hedge.		C , 1	Medium
T65	Pedunculate oak	7.0	4.0	360	1	4.5	3.0	4.5	4.0	4.0	NE	Middle Age	Fair	Heavily ivy clad tree at edge of ditch. Heavily suppressed from above by adjacent oak causing a phototropic growth habit. TPO No. 60, 1991 - W1.		C , 1	Medium
T66	Pedunculate oak	8.0	2.0	1700	2	6.0	5.0	7.5	7.5	2.0	S	Mature	Veteran	Fairly balanced but squat crown. Major stem wound on southern and south-eastern side from base to bifurcation union at c. 2m, wound is concrete-filled. Bifurcate form. Surface rooting to north due to steep banked and deep ditch. Vigorous canopy. Habitat value. A particularly nice tree. TPO No. 60, 1991 - W1.		A , 1, 2, 3	Long



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		(m)	(m)	(mm)	arising below 1.5m	(m)	(m)	(m)	(m)	(m)	(N,S,E,W)	Young, Middle Age, Mature	Good, Fair, Poor, Veteran			A,B,C,U (1,2,3)	Long, Medium, Short, Very Short
Groups																	
G1	Pedunculate oak	8 to 12	1.5	600 to 800	2							Middle Age to Mature	Good	Squat crowns, exhibiting some shoot dieback. Moderate deadwood. Dense understorey of bramble. Heavily ivy clad stems.		B , 1, 2	Long
G2	Sycamore, Common hawthorn, Common ash, Pedunculate oak, Goat willow, Crack willow	2 to 15	0.0	50 to 600	200							Middle Age	Mixed	Group lines western side of roughly surfaced track way. Stem and limb failures of willows. North end of group contains middle age oak trees. Heavily ivy clad stems. Predominantly in fair condition, with occasional failed trees and some in good condition. Scrubby understorey. Significant landscape feature.	General remedial works will be required if the area is to be brought back into public use.	B , 2	Long
G3	Common hawthorn, Common ash, Pedunculate oak, Goat willow, Crack willow	2 to 15	0.0	120 to 1030	200							Middle Age to Mature	Mixed	Lapsed hedgerow and scrubby understorey with mature oaks staggered through group. Lines eastern side of old roughly surfaced track way. Possible bat habitat provided by large open cavities. Visual screen from road and significant landscape feature. Dense ivy cover. Some stem and limb failures of crack willow. Group is in predominantly good condition with exception of some failed trees. TPO No. 60, 1991 - T24 to T37.	General remedial works will be required if the area is to be brought back into public use.	A , 1, 2, 3	Long
G4	Common hawthorn, Common ash, Blackthorn, Pedunculate oak, Elder, Wych elm	2 to 9	0.0	50 to 400	100							Middle Age	Fair	Dense thicket. Bramble and ivy understorey. Ditch along southern edge. Some larger trees within group. Flailed fieldside to north. TPO No. 60, 1991 - W1.		B , 2	Long
G5	Pedunculate oak	6 to 13	2.0	500 to 650	3							Middle Age	Good	Reasonable individual tree form if slight asymmetric due to growth as a closely spaced group. Heavily ivy clad stems. Southernmost tree is largest out of 3 trees in group and has an owl box on lower north-eastern stem. 2 northernmost trees are located within field boundary hedge.		B , 2	Long
G6	Common hawthorn, Common ash, Pedunculate oak, Goat willow, Crack willow	2 to 15	0.0	100 to 1000	200							Middle Age to Mature	Mixed	Stem and branch failures throughout group, particularly of willows, although group is overall in reasonably good condition. Strong visual landscape feature combined with adjacent groups. Stream runs through group to east with ditch along the length of the group to the south. Heavily ivy clad stems. Habitat value due to fallen trees and deadwood providing habitat and some owl boxes throughout group. Dense bramble and shrubby understorey. Some ash trees showing symptoms of Chalara Ash Dieback disease. TPO No. 60, 1991 - W1.		A , 2, 3	Long
G7	Pedunculate oak	12 to 15	2.0	500 to 1000	35							Middle Age to Mature	Good	Middle age to mature field boundary oak trees spanning northern edge of wooded area. Twisted stem forms. Some deadwood throughout. Some heavily ivy clad stems. Occluding cavities. Possible bat habitat. Group collectively with adjacent wooded area forms significant landscape and habitat feature. TPO No. 60, 1991 - W1.		A , 1, 2, 3	Long
G8	Field maple, Common hawthorn, Common ash, Pedunculate oak	2 to 15	0.0	130 to 800	200							Middle Age to Mature	Mixed	Dense lapsed hedgerow at field edge. Possible bat habitat. Field maple throughout group. Some failed stems and branches and occasional fallen trees, although group overall is in reasonably good condition. Mature ash towards south end, some with symptoms of Chalara Ash Dieback disease. Heavily ivy clad stems. Habitat and collective landscape value with adjacent wooded areas. Dense bramble and self-set tree understorey. Some bird boxes evident. TPO No. 60, 1991 - W1.		B , 2, 3	Long
G9	Silver birch, Common ash, Pedunculate oak, Goat willow, Grey willow	3 to 16	0.0	100 to 300	200							Middle Age	Good	Dense, predominantly scrubby group lining a stream and within field. Ivy growth present throughout. Oaks have potential to grow into good quality specimens. Landscape feature.		B , 2	Long
G10	Goat willow	2 to 3	0.0	50 to 80	10							Young to Middle Age	Good	Small cluster of self-set willow in roadside verge adjacent to hedge. Some flailed previously as part of hedge, but now outgrown. Group in waterlogged area.		C , 2	Long
G11	Sycamore, Common ash	3 to 3.5	2.0	60 to 90	2							Young	Good	2 small self-set trees within field boundary hedge. Ash is basally bifurcate.		C , 1	Medium
G12	Common ash	5 to 5.5	2.0	130 to 140	3							Middle Age	Fair	3 self-set tree within field boundary hedge. Potential infection of Chalara Ash Dieback disease due to heavy key retention.		C , 1	Short
G13	Common hawthorn, Common ash	3 to 5	2.0	90 to 130	3							Young to Middle Age	Good	2 self-set ash and 1 hawthorn within field boundary hedge.		C , 1	Medium



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		(m)	(m)	(mm)	arising below 1.5m	(m)	(m)	(m)	(m)	(m)	(N,S,E,W)	Young, Middle Age, Mature	Good, Fair, Poor, Veteran			A,B,C,U (1,2,3)	Long, Medium, Short, Very Short
G14	Common hawthorn, Common ash	4 to 5	2.0	80 to 130	3							Young to Middle Age	Good	2 self-set ash and 1 hawthorn within field boundary hedge.		C ,1	Medium
G15	Common hawthorn, Common ash	4 to 5	2.0	75 to 110	3							Young to Middle Age	Fair	3 self-set ash and 1 hawthorn within field boundary hedge. 2 ash have potential Chalara Ash Dieback disease infection due to heavy key retention.		C ,1	Short
G16	Common hawthorn, Goat willow	2 to 4	0.0	75 to 130	15							Middle Age	Good	Northern end of linear field boundary group. Likely a former hedgerow that has now lapsed out of management entirely.		C ,2	Long
G17	Field maple, Common hawthorn, Blackthorn, Goat willow	3 to 6	0.0	50 to 200	100							Middle Age	Fair	Roadside group of trees, likely a former hedgerow in part. Screening group.		C ,2	Long
Hedges																	
H1	Common hawthorn, Dog rose, Goat willow	2 to 3		n/a	n/a							Middle Age to Mature	Fair	Lapsing roadside hedgerow that could be brought back into management. Some bramble within hedge. Waterlogged ditch adjacent to parts of hedge.	Flail and bring back into regular management.	n/a	n/a
H2	Common hawthorn, Dog rose	1.5 to 3		n/a	n/a							Middle Age to Mature	Good	Field boundary hedge that is slightly thinner at northern end with some small gaps. Slightly outgrown.		n/a	n/a
H3	Common hawthorn, Dog rose	1.5 to 3		n/a	n/a							Middle Age to Mature	Good	Field boundary hedge that is slightly outgrown. Some bramble within hedge.		n/a	n/a
H4	Common hazel, Common hawthorn, Common ash, Blackthorn, Dog rose, Elder	1.5 to 2		n/a	n/a							Middle Age to Mature	Good	Maintained field boundary hedge. Occasional small self-set young trees within hedge <75mm diameter.		n/a	n/a



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APPENDIX C: Survey Method

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The survey of trees is conducted from ground level only. The nature of the soils on site is not assessed.

Trees are dynamic living organisms with a constantly changing structure; even trees in good condition can suffer from damage or stress. The information recorded is presented as being correct at the time of survey.

The following features of each tree, group of trees or wood may have been recorded in the Arboricultural Survey Data Sheets at Appendix 1.

Species	The common name is given. The Latin name may also be given if further clarification is required.	
Height	Top height of tree recorded in metres.	
Stem Diameter	For single-stemmed trees the measurement is taken at 1.5 metres above ground level and recorded in millimetres. For multi-stemmed trees an average all stems measured at 1.5m above ground level is used. For tree groups a range from minimum to maximum diameters is provided based on measurements taken using one of the aforementioned methods.	
No. of Stems	A count of stems arising below a height of 1.5 metres.	
Crown Spread	The N, S, E and W branch spreads are recorded in metres to provide a representative crown shape.	
Height of Lowest Branch	Crown clearance above ground level recorded in metres.	
Direction of Lowest Branch	The direction of growth of the first significant branch from the point of attachment.	
Maturity	Young	Trees that can reasonably be relocated or replaced like for like, without undue cost;
	Middle Age	Trees in the established growth stage of their life with the potential to continue increasing in size;
	Mature	Trees that have reached their ultimate size, given their location and surroundings;
Condition	Good, Fair, Poor. An overall assessment of a tree's physiological and structural state in which factors that may increase its susceptibility to the effects of development are taken into account. Veteran. Trees that are in such a condition as to significantly increase their biological, cultural or aesthetic value. This is characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned.	
Comments	A brief evaluation and description of the tree with comments on form, vitality, health and any significant defects or symptoms of ill-health.	

BS 5837 Tree Quality Assessment

The tree quality assessment is based on Table 1 of BS 5837:2012 (See below). Four categories (A, B, C and U) are used to denote tree quality (A= High, B = Moderate, C = Low, U= Unsuitable for retention). Subcategories (1-3) denote the specific function value of the trees and the reasoning behind the allocation of a specific category (the subcategories may be used in combination but do not accumulate collective weight).

Root Protection Area (RPA)

The RPA is allocated to ensure that a sufficient area is left undisturbed during development. It is provided as an area (m²) and as the radius of a circle (m) typically plotted from the centre of the stem.

The RPA is calculated using a mathematical equation included in BS 5837:2012 (Section 4.6 and Table D.1) and is based on a tree's stem diameter. In some cases the RPA may need to be adapted to best reflect the likely area and position of roots required to ensure survival; this may be based on criteria such as the tree's condition, species, crown spread and any barriers to growth. Any alteration must be justifiable but is made at the Arboricultural Consultants discretion.

Recommendations

Recommendations for arboricultural works, etc. are based on the **current** land use, and take into account the tree or group attributes without bias to the proposed development.

Estimated Remaining Contribution

An estimation of the life expectancy as healthy functioning tree. This will be influenced by species and the condition of the tree at the time of survey.

Long	> 40 years
Medium	20 – 40 years
Short	less than 20 years

APPENDIX C: Survey Method

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 <i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i>			See Table 2
	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)	See Table 2
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	See Table 2
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	See Table 2

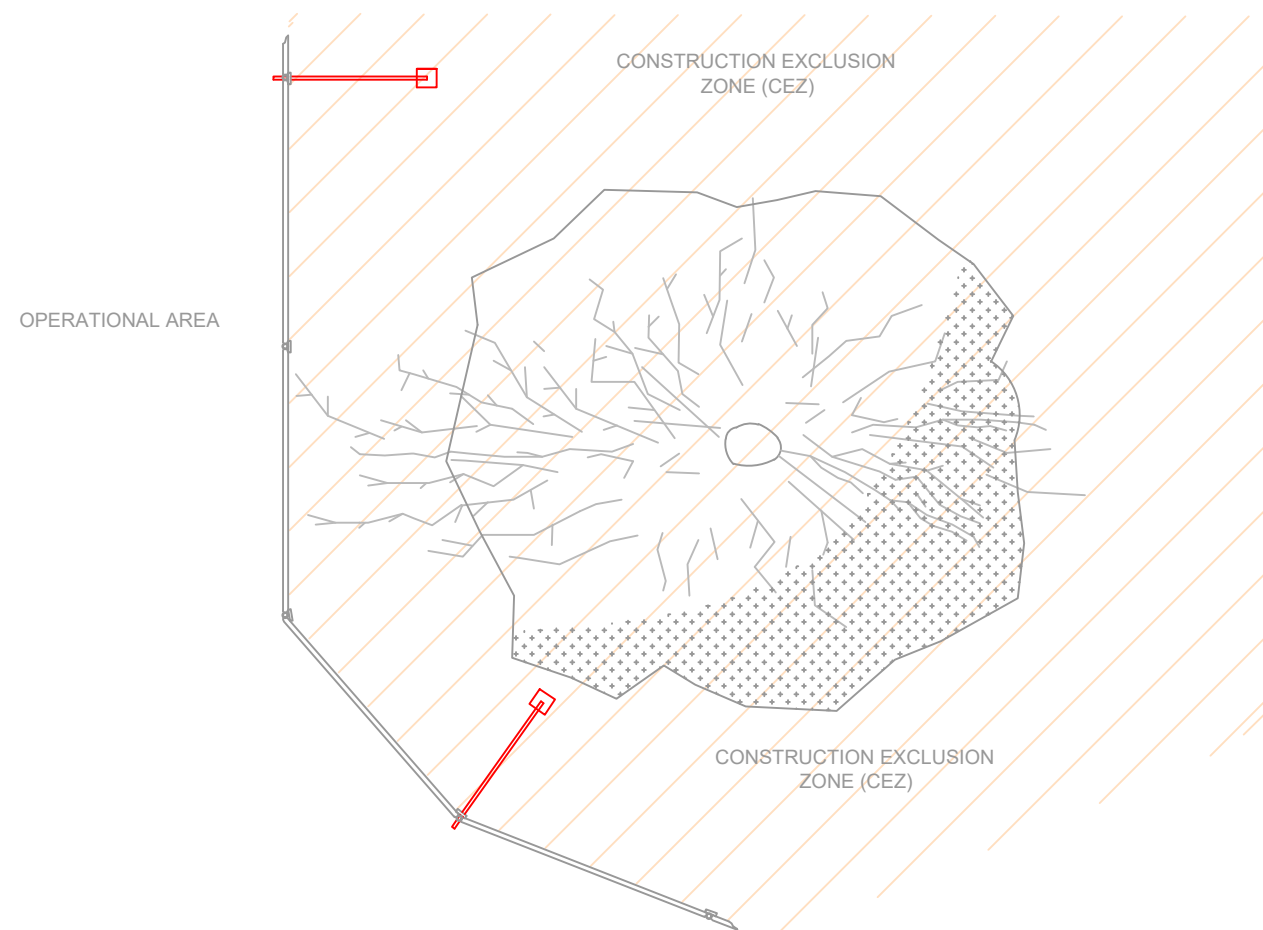
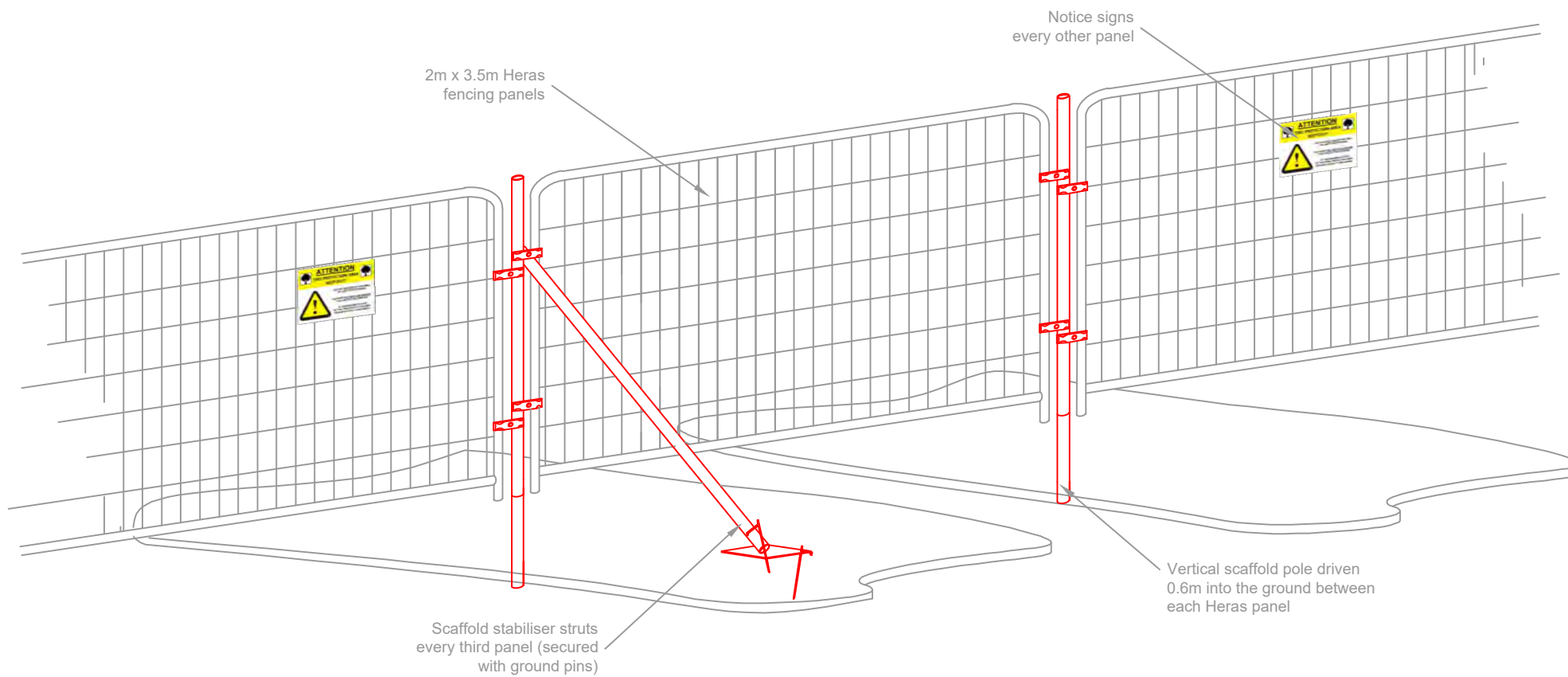
British Standards Institute (2012) BS5837:2012 Trees in relation to design, demolition and construction – Recommendations.
p.9

NOTES:

All young trees are assessed as quality category 'C' but this does not preclude their retention within a development.

For hedges the height, canopy spread and number of stems is recorded but they are not assigned a quality category.

APPENDIX D: Specification Drawings



Per 3No. Heras panels (10.5m)	
Component	Quantity
2m x 3.5m Standard Heras panels	3
3m Galvenised steel scaffold pole	3
Heras fecurity fence clip	12
Heras stabilising support bar	1
Stabilising pin	2
Tree protection notice	2

Notes:

Rev	Description	Drawn	Approved	Date
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TEP

THE ENVIRONMENT PARTNERSHIP

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Tel 01925 844004 e-mail tep@tep.uk.com www.tep.uk.com

Project

Title
Temporary tree protection fencing for use on soft surfaces

Drawing Number
TEP.ARB.FEN.001

Drawn	Checked	Approved	Scale	Date
TDP	RMG	JGS	(not to scale) @ A3	08/07/2019



ATTENTION

**TREE PROTECTION AREA
KEEP OUT!**



**YOU MAY NOT ENTER THIS AREA
OR USE IT FOR STORAGE**

**YOU MUST NOT MOVE OR DAMAGE
THIS PROTECTION FENCING**

**IF YOU REQUIRE ACCESS
TO THE TREE PROTECTION AREA
PLEASE CONTACT 01925 844004**

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