



Welsh-Wood

Arboricultural Consultancy

Pre-Development Site Survey

Arboricultural Impact Assessment

BS5837:2012 Trees in Relation to Design,
Demolition and Construction

Regarding:

Clays Touring & Leisure Park
Bryn Estyn Rd, Holt,
Wrexham LL13 9UB

Ref: NEB 21005 AIA

Executive Summary

- S1** Welsh-Wood Arboricultural Consultancy has been instructed by Mr. & Mrs Fowles of Clays Touring and Leisure Park, to undertake a survey of all trees within influence of the proposed development. The site is an operational touring park that accommodates touring caravans and tents.
- S2** A site visit was undertaken by the author on 14th September 2021. In total 21 individual trees and 9 tree groups were surveyed. All trees are situated within or adjacent to the site boundary and have been identified on the accompanying Tree Constraints Plans.
- S3** There are individual trees and tree groups in the form of shelter belts and hedgerows on site. The individual trees are for the most in a good condition although symptoms of decline associated with soil compaction were noted, as would be expected given the site usage. The tree groups are in a good condition, well established in their setting.
- S4** The proposed development has been broken down into 3 areas which include the extension of the reception and shower block, establishment of new pitches in the tent field and erection of fishing lodges by the larger of two lakes. Conflict between the proposals is minimal and would only necessitate removal of a portion of a semi mature cypress hedge (G3). The other conflicts can be addressed through supervised hand digging and the use of geoweb textiles.
- S5** It must be noted that trees provide essential habitat for birds and bats and as such any proposed works must be carried out in full consideration of the law. Birds, bats, and their habitats are afforded protection within the Wildlife and Countryside Act 1981 and The Conservation of Habitats and Species Regulations 2010 (as amended).

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1.0 Introduction

- 1.0.1 This report details the findings of a tree survey at the listed address (the site) and has been prepared in compliance with BS5837: 2012 'Trees in Relation to Design, Demolition and Construction – Recommendations'.

1.1 *Brief/Instruction*

- 1.1.1 Welsh-Wood Arboricultural Consultancy has been instructed by Mr. & Mrs Fowles of Clays Touring and Leisure Park, to undertake a survey of all trees within influence of the proposed development.
- 1.1.2 The site is an operational touring park that accommodates touring caravans and tents.
- 1.1.3 This report is concerned with the impact of the proposed development following survey and will be submitted with an application for outline planning consent.

1.2 *Qualifications and experience of surveyor*

- 1.2.1 The author holds the Higher National Certificate in Arboriculture, and LANTRA Professional Tree Inspector qualifications, and has worked in the arboricultural industry for 20 years as a Local Authority Tree Officer, Arboricultural Consultant and Lecturer in Arboriculture.

1.3 *Documents Provided in Advance*

- 1.3.1 The following documents were provided prior to the tree survey:
- Design plan for the site (broken down into three areas)

1.4 *Relevant background information & scope of this report*

- 1.4.1 This report has been commissioned to support the development of the site.
- 1.4.2 The survey is intended to appraise the quality of the tree stock independent of the design proposals and identify which trees, if any, should be removed and how retained trees should be protected in order to make a positive landscape contribution to the site in future years.

1.5 Caveats and Limitations

- 1.5.1 This report relates specifically to the condition of the trees upon the day that the inspection was carried out.
- 1.5.2 Inspection was carried out from ground level, with use of binoculars where necessary. No climbing inspection was conducted. Where access to parts of the site or trees on adjacent land was not possible, estimates have been made regarding tree dimensions. This will be made clear in the tree and group schedules where relevant.
- 1.5.3 No detailed analysis of soil samples was undertaken. Root areas and possible underground conflict interaction were only investigated insofar as a surface visual inspection.
- 1.5.4 All legal documentation and information given to and used for the purposes of this report by Welsh-Wood Arboricultural Consultancy is presumed accurate.
- 1.5.5 The report is valid only for typical weather conditions. Healthy trees, or parts of healthy trees, may fail in unusually high or unpredictable winds or violent storms and as such the consequences of such weather phenomena are unforeseeable. It follows that Welsh-Wood Arboricultural Consultancy cannot be held liable for any such failures.
- 1.5.6 Where trees fall under the protection of the Local Council, permission may be required before works begin. There are no such designations relating to any trees on site.
- 1.5.7 All rights in this report are reserved. No part of it may be reproduced or transmitted, in any form or by any means; electronic, mechanical, photocopying, recording or otherwise, or stored in any retrieval system of any nature, without the written permission of Welsh-Wood Arboricultural Consultancy. Its content and format are for the exclusive use of the addressee in dealing with this claim / site / situation. It may not be sold, lent, hired out or divulged to any third party not directly involved in this claim / site / situation without written consent from Welsh-Wood Arboricultural Consultancy.

2.0 Data collection

2.0.1 Tree survey data included:

- Tree reference number
- Species listed by common name
- Height in metres to the nearest 0.5m
- Stem diameter in mm, measured in accordance with Annex C of BS5837:2012
- Branch spread in metres at 4 cardinal points
- Height above in metres ground level of:
 - First significant branch and direction of growth
 - Lowest part of the canopy
- Life stage (newly planted / young / semi-mature / mature / over-mature / veteran)
- General observations
- Preliminary management recommendations
- Estimated remaining contribution in years (<10 / 10+ / 20+ / 40+)
- Category grading (U, A, B or C)

2.0.2 The trees were surveyed using current visual tree assessment (VTA) methods and where necessary sounded with a rubber-ended mallet to ascertain the need to investigate further defects or issues regarding structural stability/longevity.

2.0.3 The Visual Tree Assessment methodology (VTA) as devised by Prof. Dr. Claus Mattheck is an internationally recognised industry standard for tree inspection.

2.0.4 These suggestions are the author's professional recommendations and in no way hold any legal or official capacity.

N	A new or recently planted tree established for no more than 5 years in its present location.
Y	A young tree planted/established for no more than 10 years in its present location.
SM	A semi-mature tree which is well established but with some growth to make before reaching its full potential size.
M	A mature tree at or near its potential maximum size which is still growing vigorously.
OM	An over mature tree in decline.
V	A veteran tree; in the advanced stage of its life and displaying numerous characteristics such as unusually large girth, cavities, water pockets, large quantities of dead wood etc.

Table 1. The classification system used to describe each trees age class. The age class legend can be used in conjunction with individual tree data found in the sectional appendix of this paper. Please note this is a general age class classification and users should be aware that this information is species specific.

2.1 Site Visit

- 2.1.1 A site visit was undertaken by the author on 14th September 2021. The weather conditions during the site visit were cloudy however, posed little constraint to assessment.
- 2.1.2 Restrictions to assessment do exist in the form of vegetation, namely surrounding scrub and trees, and access where boundary fencing or dense vegetation prohibited it.
- 2.1.3 No further action to address this constraint to survey is thought necessary at this time.

2.2 Site description

- 2.2.1 The listed address consists of a touring and leisure park accommodating touring caravans and tents. The facilities are serviced by a reception block that includes toilet and showering facilities. A network of tarmacked roads extends through the site facilitating visitor access and site maintenance.
- 2.2.2 The central bulk of the site is given over to touring caravan pitches. A tent field exists at the west of the site. A third area currently unoccupied exists to the south of the site and contains two lakes.
- 2.2.3 The site is bordered by Bryn Estyn Road to the north. Agricultural land to the east and south, and Clays Golf Course to the east. Vehicular access is via Bryn Estyn Road.
- 2.2.4 There are two gates to the site. The first electric gate permits access to a large parking area and turning bay bordered by trees. Although this area is not proposed for development the trees bordering it have been included within the survey to ensure their protection through the development process. The second access gate is situated adjacent to the reception block and near T1.
- 2.2.5 The topography of the site is predominantly flat although there is a gentle gradient towards the south when nearing the lakes, and towards the southwest in the tent field.
- 2.2.6 The trees exist for the most as shelter belt planting at the site periphery and as bisecting features for the site. There are also several maturing and mature oaks situated throughout the site and at the boundary within hedgerows. Many of the current shelterbelts were planted by the existing site owners.

- 2.2.7 All trees surveyed were classified in accordance with Table 2; the tree classification system set out in BS 5837: 2012 Trees in Relation to Design, Demolition and Construction (shown below).
- 2.2.8 As no topographical survey has been undertaken at this time the trees were plotted by hand and then compared with aerial imagery to provide as accurate a location as possible for the Tree Constraints Plan.

Category & definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention				
Category U Trees in such a condition that they cannot realistically be retained as living trees in the context of current land use for >10 yrs	- 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 - Trees that are dead or showing signs of significant, immediate and irreversible decline - Trees infected with significant pathogens affecting health or safety, or very low quality trees suppressing trees of better quality <i>NOTE: these trees can having existing or potential conservation value making retention desirable</i>			DARK RED
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values inc conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of >40 yrs	Particularly good examples of their species, esp if rare or unusual. Those that are essential components of groups or formal or semi-formal arboricultural features	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	LIGHT GREEN
Category B Trees of moderate quality with an estimated remaining life expectancy of >20 yrs	Trees that might be included in category A but are downgraded because of impaired condition such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit category A designation.	Trees present in numbers, usually growing as groups or woodlands such that they attract a higher collective rating that they might as individuals. Trees occurring as collectives but situated so as to make little visual contribution to the area.	Trees with material conservation or other cultural value	MID BLUE
Category C Trees of low quality with an estimated remaining life expectancy of >10 years, or young trees with a stem diameter <150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary landscape benefits.	Trees with no material conservation or other cultural value.	GREY

Table 2 - Tree classification, adapted from table 1 of BS 5837:2012

3.0 Arboricultural Impact Assessment

3.1 General Statement

- 3.1.1 In total 21 individual trees and 9 tree groups were surveyed. All trees are situated within or adjacent to the site boundary and have been identified on the accompanying Tree Constraints Plans.
- 3.1.2 The individual trees consist of formal planting, the groups are either shelter belts or hedgerows.
- 3.1.3 A full schedule for individual trees and tree groups can be found in Appendix 1 however, relevant details and significant factors are discussed below.

3.2 Species and Age Distribution

- 3.2.1 The dominant individual tree species are oak (*Quercus spp.*) and Black poplar hybrid (*Populus nigra var.*)
- 3.2.2 The shelter belt groups contain a diverse mixture including hawthorn (*Crataegus monogyna*), elder (*Sambucus nigra*), ash (*Fraxinus excelsior*), hazel (*Corylus avellana*), Poplar spp. (*Populus spp.*), holly (*Ilex aquifolium*), Field maple (*Acer campestre*), sycamore (*Acer pseudoplatanus*) and Crab apple (*Malus sylvestris*).
- 3.2.3 The hedges are for the most mixed thorn or Lawson cypress (*Chamaecyparis lawsoniana*).
- 3.2.4 The majority of on-site trees have been classified as semi mature and as such are capable of making a significant contribution to the landscape for many years to come.
- 3.2.5 It should be noted that an age category relates to a period of years and as such even mature specimens can make a lasting contribution that may span decades, dependant on the individual species.

3.3 Tree Descriptions

- 3.3.1 T1 – T5 are oak species all semi mature or mature in age that predate the current land usage. They are for the most of a fair condition although there are symptoms associated with soil compaction as would be expected. (See TCP 2.1)
- 3.3.2 There are two decay pathogens on site noted on the stump of a historically felled oak located inside the main gate and close to T1. The fruiting bodies of these pathogens were somewhat degraded but they are thought to be Beefsteak Fungus (*Fistulina hepatica*) and one of the Ganoderma species. It should be noted that both decay pathogens can result in the stem or root failure in host trees. As such every precaution should be taken to minimise the likelihood of infection to a live tree on site.
- 3.3.3 Fungus spread via spores released from their fruiting bodies, which is the mushroom or bracket part of the fungus that we see. Entry into new hosts usually occurs via wounds to the tree or tree roots. As such every care should be taken to avoid unnecessary wounding and minimise root disturbance.
- 3.3.4 T8 – T13 are semi mature hybrid poplars situated around what is currently the tent field. Several of them have been subject to significant crown reductions as part of their ongoing management. This is discussed further in section 3.4. (See TCP 2.2)
- 3.3.5 T15 – T20 are oak species situated within a hedgerow and area of scrub bordering the southern lakeside field.
- 3.3.6 The other few individual trees have been included given their proximity to the proposed development to ensure their suitable protection.

3.4 Structural Condition

- 3.4.1 Structural condition relates to the form of the trees, in particular specimens that have developed as multi stemmed from the base or may have developed poor branch structure that renders them susceptible to failure in the future.
- 3.4.2 As noted in 3.3.4 several of the poplar trees have been subject to crown reductions or topping as part of their ongoing management. It must be noted that this type of

management necessitates cyclical pruning. As the re-growth matures it eventually exceeds its optimum size and becomes susceptible to failure.

3.5 Physiological Condition

- 3.5.1 Physiological condition relates to the health of the trees surveyed.
- 3.5.2 Several of the oak trees on site are displaying symptoms of soil compaction in the form of deadwood and epicormic growth. Soil compaction is a significant issue for trees and hinders root growth and function. This is not an unexpected issue given the site usage however should be noted given the potential hazards for visitors to the site. (LONSDALE 1999)
- 3.5.3 As noted in 3.3.2 decay pathogens are present on site, Beefsteak Fungus and Ganoderma spp. They are both parasitic fungus that live on the live wood within a tree and have the potential to cause significant failure of part or all of a tree. No indications of infection to live trees from these pathogens were noted during survey however, it should be considered for all future condition tree assessments made on site.
- 3.5.4 One live tree, T7, was identified with the decay pathogen Shaggy Bracket (*Inonotus hispidus*). This decay pathogen is not commonly found on oaks, however, can have catastrophic effects on ash resulting in stem failure. The pathogen as identified on the main stem around an area of wounding with dysfunctional tissue visible. Management options including decay detection, reduction and removal were discussed with the site owners during survey so that they may make a decision most appropriate for the tree and its location within the touring camping area.

3.6 Development Proposal Summary

- 3.6.1 The development proposals can be split into 3 areas and have been shown on the three TCP's included in this report
 - TCP 2.1 – Extension of the existing reception area and shower block
 - TCP 2.2 – Establishment of static pitches in the tent field
 - TCP 2.3 – Establishment of fishing lodges and a new access route

3.7 Tree Categorisation & Constraints

- 3.7.1 The tree constraints plans that accompany this report show the above ground constraints (branch spread) and the below ground constraints, i.e., the anticipated extent of tree roots based on a calculation using the stem diameter and consideration of any site conditions which may affect root growth.
- 3.7.2 Root protection areas (RPA) are usually shown as a circle centred on the base of the stem unless site conditions such as nearby structures indicate that the shape of the rooting area deviates from this format.
- 3.7.3 The RPA for T2 oak has been modified due to on-site features namely the footprint of the existing reception area and hardstanding.
- 3.7.4 The trees surveyed for this report have been categorised as follows:

BS Category	Tree Reference	Number of Features
A (1,2,3)	T3, T4, T6, T8, T14, T15, T16, T18, T19, T21, G1, G2, G3, G6, G7	15
B (1,2,3)	T1, T2, T5, T20, G4, G5, G8, G9	8
C (1,2,3)	T7, T9, T10, T11, T12, T13, T17	7
U		

Table 3. Summary categorisation of trees surveyed.

3.8 Below Ground Constraints

- 3.8.1 There are below ground constraints for some of the on-site trees however every effort has been made to amend the design plan to minimise conflict.

3.8.2 TCP 2.1

3.8.2.1 As shown on TCP 2.1 the proposed extension of the existing reception area and shower block conflicts with a portion of G3 Cypress hedge. For the development to proceed a portion of this hedge would need to be removed.

3.8.2.2 G3 provides a screen between the reception block and the adjacent agricultural field. Any proposed tree removals will be mitigated against with replacement planting in a suitable location.

3.8.2.3 There is also a slight conflict between with the edge of the RPA for T2 oak and the proposed reception block extension. It is proposed that given the small extent of the conflict the development could proceed with supervised hand digging of this portion of the site, as would be specified within the Arboricultural Method Statement.

3.8.3 TCP 2.2

3.8.3.1 As can be seen on TCP 2.2 there is some conflict between the RPA's for retained trees and the proposed location of the static pitches. It is proposed that this is mitigated by means of hand digging and geoweb textiles to minimise root damage and deter future ground compaction.

3.8.4 TCP 2.3

3.8.4.1 TCP 2.3 indicates a conflict between the new proposed access road and the line of oak trees however, the design plan has been amended to address this conflict as is shown in Appendix 3. The new design plan will be overlaid on the relevant TCP on request to confirm that the conflict has been removed.

3.9 Above Ground Constraints

- 3.9.1 There are two areas of above ground constraints with regard access for the purpose of development. The access track for the tent field is overhung by G4 on both sides and would require lifting to facilitate access for vehicles and plant.
- 3.9.2 Similarly the access route to the southern field, proposed for establishment of fishing lodges and a new access route, is overhung at the gate, and would require lifting and reduction to facilitate access.

3.10 Trees to be Retained/ Removed

- 3.10.1 With the exception of a partial removal of G3 Cypress hedge, all other trees are to be retained.

Table 1 - Tree Survey Data

Key For Tree Survey Data	
Tree ID	Numerical value assigned to the tree or tree group
Common & Botanical Name	Common and botanical name recorded
Height (m)	Height to the top of the central canopy
Stem Dia. (mm)	Depth of main stem measured at 1.5m
Crown Spread (m)	Measure of the spread of the canopy across the four cardinal compass points
Height & Orientation of First Significant Branch	Height and orientation on the main stem of the first significant branch
Avg. Canopy Height (m)	The average height of the canopy of the tree
Life Stage	One of five categories: Y - Young, under 10 years of age, SM - Semi mature, well established but yet to reach full potential, M - Mature, more or less full height and large girth, increasing only slowly, OM - Over mature, beyond two thirds of the life expectancy of their species. No significant extension growth. Crown starting to break up and decrease in size. V - Veteran. Tree that shows features of biological, cultural or aesthetic value that are characteristic of an individual surviving beyond the typical age range for the species.
General Observations	Significant structural and physiological defects noted
Preliminary Recommendations	Works recommendations to remedy or further investigate significant defects, or facilitate development
Estimated Remaining Contribution (Years)	Taken from guidelines provided within BS 5837 (2012) Trees in Relation to Design, Demolition and Construction
BS5837: 2012 Category	Taken from guidelines provided within BS 5837 (2012) Trees in Relation to Design, Demolition and Construction
RPA Radius (m)	Root protection area - radius of RPA
RPA m ²	Root protection area

Tree ID	Common Name	Botanical Name	Height (m)	Calc. / Actual Stem Dia. (mm)	Spread (m)				Height (m) & Orientation of First Significant Branch	Avg. Canopy Height (m)	Life Stage	General Observations	Preliminary Recommendations	Estimated Remaining Contribution (Years)	BS5837: 2005 Category	RPA Radius (m)	RPA m²
					N	E	S	W									
1	English oak	<i>Quercus robur</i>	17	960	6	6	3	5	0	0	SM	Small dead standing tree at base. Hazard beam on primary limb. Crown epicormics. Ivy restricting assessment.	No work required.	20+	B1	11.5	417
2	English oak	<i>Quercus robur</i>	13	1210	7	7	8	6	N3	2	M	Fibre buckling at 0.5-1.5m, hazard beam in crown. Previous crown reduction.	No work required.	20+	B1	14.5	662
3	English oak	<i>Quercus robur</i>	16	810	3	5	7	6	S2	2	SM	Fused primary limbs to the south. Deadwood over hedge.	No work required.	40+	A1	9.7	297
4	Blue spruce	<i>Picea pungens</i>	4	160	2	2	2	2	0	0	SM	No significant defects.	No work required.	40+	A1	2.0	12
5	English oak	<i>Quercus robur</i>	16	890	8	5	8	5	E4	3	SM	Fibre buckling at base. Multiple pruning wounds. Stem epicormics.	No work required.	20+	B1	10.7	358
6	Limespecies	<i>Tilia spp.</i>	6	230	3	3	3	3	0	0	SM	Stem epicormic growing through adjacent oak canopy.	No work required.	40+	A1	2.8	24

Tree ID	Common Name	Botanical Name	Height (m)	Calc. / Actual Stem Dia. (mm)	Spread (m)				Height (m) & Orientation of First Significant Branch	Avg. Canopy Height (m)	Life Stage	General Observations	Preliminary Recommendations	Estimated Remaining Contribution (Years)	B55837: 2005 Category	RPA Radius (m)	RPA m²
					N	E	S	W									
7	English oak	<i>Quercus robur</i>	17	790	8	5	7	7	N5	3	SM	Inonotus hispidus on main stem at pruning wound at 3m. Multiple stem wounds and decay evident, extent epicormics.	Further investigation required - discussed with site owner.	10+	C1	9.5	282
8	Black poplar hybrid	<i>Populus nigra</i> var.	12	250	3	4	4	3	N2	2	SM	Situated at edge of group. Stem epicormics.	No work required.	40+	A1	3.0	28
9	Black poplar hybrid	<i>Populus nigra</i> var.	13	270	3	3	3	3	3N	3	SM	Topped at approximately 10m with re-growth. Co-dominant stem at 3m.	No work required.	10+	C1	3.2	33
10	Black poplar hybrid	<i>Populus nigra</i> var.	13	240	3	3	3	3	0	0	SM	Topped at approximately 10m with re-growth. Stem epicormics.	No work required.	10+	C1	2.9	26
11	Black poplar hybrid	<i>Populus nigra</i> var.	13	250	3	3	3	3	0	0	SM	Topped at approximately 10m with re-growth. Stem epicormics.	No work required.	10+	C1	3.0	28
12	Black poplar hybrid	<i>Populus nigra</i> var.	13	260	3	3	3	3	0	0	SM	Topped at approximately 10m with re-growth. Stem epicormics.	No work required.	10+	C1	3.1	31
13	Black poplar hybrid	<i>Populus nigra</i> var.	13	280	3	3	3	3	0	0	SM	Topped at approximately 10m with re-growth. Stem epicormics.	No work required.	10+	C1	3.3	35
14	Norway spruce	<i>Picea abies</i>	5	150	2	2	2	2	0	0	SM	No significant defects.	No work required.	40+	A1	1.8	10
15	English oak	<i>Quercus robur</i>	15	1000	7	8	7	9	N2	3	M	Restricted assessment due to access. Limited deadwood.	No work required.	40+	A1	12.0	452
16	English oak	<i>Quercus robur</i>	15	800	7	6	8	8	S5	3	M	Restricted assessment due to access. Crown epicormics.	No work required.	40+	A1	9.6	290
17	English oak	<i>Quercus robur</i>	10	450	2	4	5	6	W2	3	SM	Restricted assessment due to access. Asymmetrical form. Deadwood.	No work required.	10+	C1	5.4	92
18	Field maple	<i>Acer campestre</i>	12	480	4	4	4	4	N3	3	SM	Restricted assessment due to access.	No work required.	40+	A1	5.8	104
19	English oak	<i>Quercus robur</i>	26	650	6	6	7	8	N3	3	SM	Restricted assessment due to access.	No work required.	40+	A1	7.8	191
20	English oak	<i>Quercus robur</i>	9	800	7	5	5	6	W3	3	SM	Restricted assessment due to access. Asymmetrical form. Previous primary limb removal.	No work required.	20+	B1	9.6	290
21	Weeping willow	<i>Salix x chrysocoma</i>	9	300	6	5	5	6	0	0	SM	Situated in water at edge of lake. Restricted assessment.	No work required.	40+	A1	3.6	41

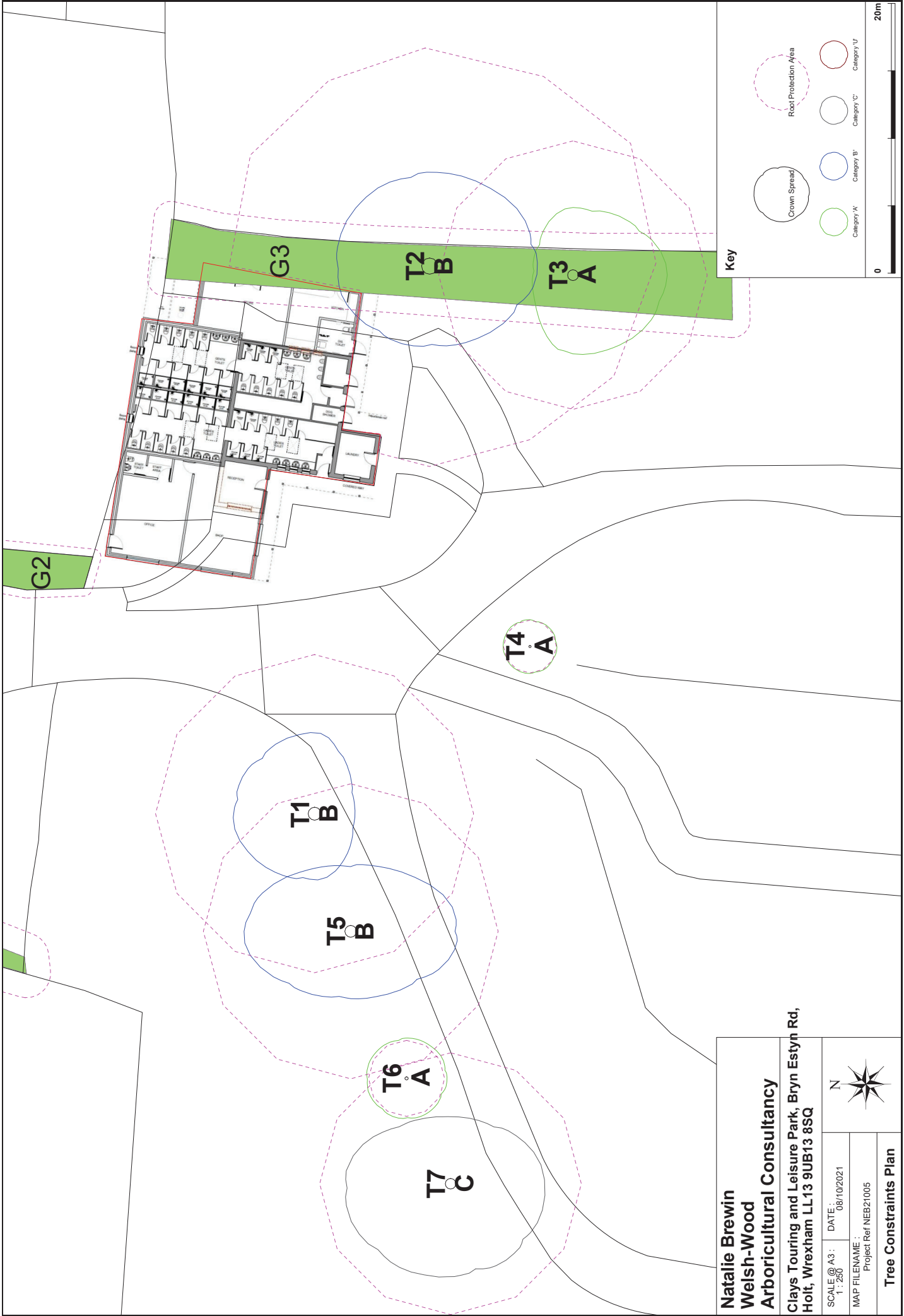
Appendix 1.2 - Group Data

Date: 14th September 2021
Site: Clays Touring & Leisure Park Bryn Estyn Rd, Holt, Wrexham LL13 9UB
Consultant: N Brewin

Key For Group Survey Data

Tree ID	Numerical value assigned to the tree or tree group
Description	Description of group makeup and management
Height (m)	Height to the top of the central canopy
Stem Dia. (mm)	Depth of main stem measured at 1.5m
Life Stage	One of five categories: Y - Young, under 10 years of age; SM - Semi mature, well established but yet to reach full potential; M - Mature, more or less full height and large girth, increasing only slowly; OM - Over mature, beyond two thirds of the life expectancy of their species; No significant extension growth. Crown starting to break up and decrease in size; V - Veteran, Tree that shows features of biological, cultural or aesthetic value that are characteristic of an individual surviving beyond the typical age range for the species.
General Observations	Significant structural and physiological defects noted
Preliminary Recommendations	Works recommendations to remedy or further investigate significant defects, or facilitate development
Estimated Remaining Contribution (Years)	Taken from guidelines provided within BS 5837 (2012) Trees in Relation to Design, Demolition and Construction
BS5837: 2012 Category	Taken from guidelines provided within BS 5837 (2012) Trees in Relation to Design, Demolition and Construction
RPA Radius (m)	Root protection area - radius of RPA
RPA m ²	Root protection area

Group ID	Description	Dominant Species	Height (m)	Calc. / Actual Stem Dia.	Spread (m)	S	E	W	Life Stage	General Observations	Preliminary Recommendations	Estimated Remaining Contribution (Years)	BS5837: 2005 Category	RPA Radius (m)	RPA m ²
1	Linear group at edge of entrance and site boundary forming screening hedge.	Crab apple and hawthorn	5	150	2	3	2	3	SM	Significant group at boundary, informal large hedge.	No works required.	40+	A2	1.8	10
2	Formal cypress hedge	Lawson cypress	2	50	1	1	1	1	Y	Managed hedge.	No works required.	40+	A2	0.6	1
3	Formal cypress hedge	Lawson cypress, individual hawthorn present	5	100	1	2	1	2	SM	Dominant boundary hedge.	No works required.	40+	A2	1.3	5
4	Mixed species shelter belt	Poplar, sycamore, laurel, holly	7	200	3	3	3	3	SM	Shelter belt group with a diverse mix of shrubs and trees.	No works required.	20+	B2	2.4	18
5	Woodland area	Field maple, hawthorn, hazel, sycamore	8	200	4	4	4	4	SM	Wooded group with shrub layer at site boundary.	No works required.	20+	B2	2.4	18
6	Linear boundary group of cypress	Lawson cypress	5	160	2	2	2	2	SM	Individual blackthorn in group. Height of cypress managed for part of the group.	No works required.	40+	A2	2.0	12
7	Linear boundary group of cypress	Lawson cypress	4	100	1	1	1	1	SM	Managed hedge.	No works required.	40+	A2	1.3	5
8	Shelter belt group dividing site	Hawthorn, elder and ash	4	190	2	2	2	2	SM	Shelter belt dividing site and bordering gate to bottom field. Some low branches over the gate entrance to field.	Crown lift over gate to facilitate plant access. Suggest 4m.	20+	B2	2.3	16
9	Gappy group with shrub later around linear tree feature	Hawthorn, ash and hazel	5	270	4	4	4	4	SM	Some dead standing trees. Borders lake field with adjacent agricultural field. Restricted access.	No works required.	20+	B2	3.2	33



Natalie Brewin Welsh-Wood Arboricultural Consultancy		Clays Touring and Leisure Park, Bryn Estyn Rd, Holt, Wrexham LL13 9UB13 8SQ	
SCALE @ A3 : 1 : 250	DATE : 08/10/2021		
MAP FILENAME : Project Ref NEB21005			
Tree Constraints Plan			

Crown Spread

Root Protection Area

Category 'A'

Category 'B'

Category 'C'

Category 'U'

0

40m



Natalie Brewin

Welsh-Wood

Arboricultural Consultancy

Clays Touring and Leisure Park, Bryn Estyn Rd,

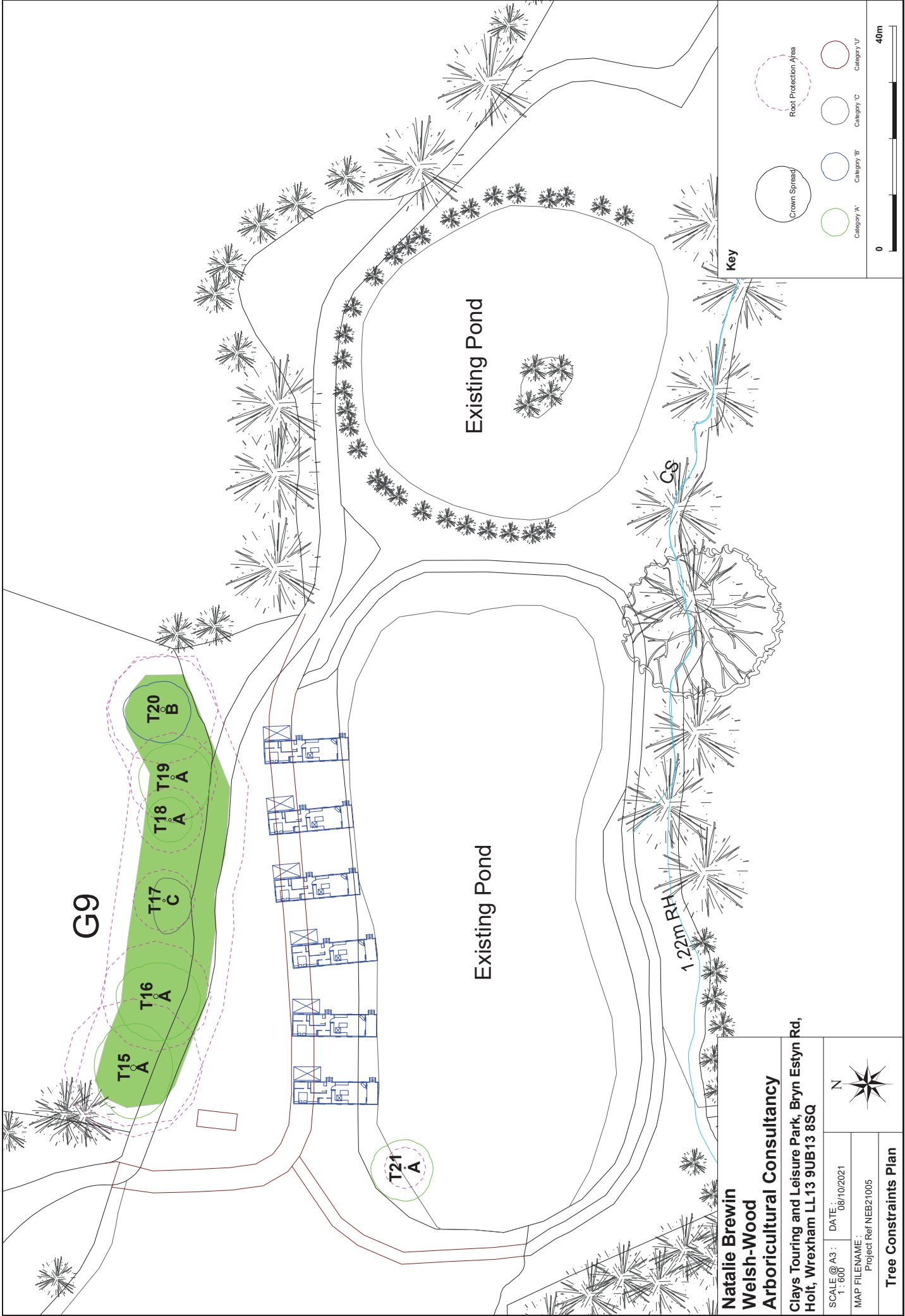
Holt, Wrexham LL13 9UB13 8SQ

SCALE @ A3 : 1 : 600

DATE : 08/10/2021

MAP FILENAME : Project Ref NEB21005

Tree Constraints Plan



Natalie Brewin Welsh-Wood Arboricultural Consultancy		
Clays Touring and Leisure Park, Bryn Estyn Rd, Holt, Wrexham LL13 9UB13 8SQ		
SCALE @ A3 : 1 : 600	DATE : 08/10/2021	
MAP FILENAME : Project Ref NEB21005		Tree Constraints Plan



AMENDMENTS		
NO	Date	By
1	28/12/21	
Track position revised		
Do not scale this drawing Site dimensions to be checked This drawing is copyright		
JOB		
PROPOSED FISHING LODGES		
Title		
CLAYS LEISURE PARK & FISHERY BRYN IESTYN ROAD MRESHAM		
REF.		
E 1/20	01	S
PROPOSED LODGE LAYOUT PLAN		
SCALE		
1:500 @ A1		
DRAWN		
CL.A	DATE	March 2021
GERAINT LEWIS ASSOCIATES LTD		
ARCHITECTURAL DESIGNERS, PLANNING CONSULTANTS, BUILDING SUPERVISORS & PROJECT MANAGERS		
BRYN IESTYN, LLANELLYD GOLDCLIFF, SWYDNEY, LL40 2BU TELEPHONE: 01494 422474		

Appendix 4 – Photographs



P1 – Site entrance from interior



P2 – Stump with pathogen fruiting body



P3 – Line of oaks (T1, T5, T6, T7)



P4 – T7 Inonotus brackets



P5 – Reception and shower block



P6 – G3 hedge and T2 oak



P7 – Entrance to tent field



P8 – Tent field showing topped Poplars



P9 – Tent field



P10 – Entrance to lake field



P11 – Existing access road and area for new road

Appendix 5 - Bibliography

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