BS 5837:2012 Tree Survey, Arboricultural Impact Assessment, Tree Constraints Plan, Arboricultural Method Statement and Tree Protection Plan

At

49b Lonsdale Road, Barnes

SW13 9JR

April 2024

Advanced Tree Services
The Depot
Pixham Lane
Dorking
Surrey RH4 1PH

Phone: 01483 210066
E-mail: info@atstrees.co.uk

Introduction

1. I have been instructed by Mr Richard McGee on behalf of the property owners to produce an Arboricultural Impact Assessment (AIA), Tree Constraints Plan (TCP), Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP) for a development at 49b Lonsdale Road, London SW13 9JR.

2. The purpose of the Method Statement is to demonstrate how works will be undertaken at the property to avoid unacceptable arboricultural impact and provide an adequate level of protection for those trees shown to be retained. This is shown diagrammatically on the TPP, indicating the positions of protective fences delineating the Construction Exclusion Zones (CEZ).

3. The client has supplied plans showing both the existing and proposed layout (2347RM_HH SH1 – SH4).

4. I undertook the BS 5837:2012 tree survey on the 29th April 2024.

Proposed Development

5. It is proposed to reconfigure the internal layout and extend the first floor.

6. Access is to remain as existing.

Tree Survey

7. I assessed the trees with due regard to the recommendations and guidelines contained in BS 5837:2012 – 'Trees in relation to design, demolition and construction – Recommendations'. The tree details were recorded in tabular form (appendix a) and have been categorised in accordance with the cascade chart for tree quality.

8. The survey detail provides the data to arrive at the Root Protection Areas (RPA) for the trees shown to be retained.

9. No soil samples were taken as a part of the survey.

10. I have not seen any plans relating to service runs.

11. The trees were inspected from the ground utilising the Visual Tree Assessment method as developed by Mattheck and Breloer (The Body Language of Trees, DoE leaflet No.4).

General Site/Tree Condition

12. No.49b Lonsdale Road is a narrow, detached property with off street parking to the front.

13. The rear garden currently forms part of the larger rear garden to No.49.

14. The dominant feature in the rear is a large, mature Cedar (T1). Located approximately 13m from the rear elevation of the existing building, it is a twin stem specimen which has been topped in the past. It is in good physiological condition.

15. The other main trees close by are a Monkey Puzzle (T2) and another Cedar (T3). Both trees are in good condition but too far away to be a material concern.

16. To the front of the building, along the property boundary, are a line of three pollarded Lime trees. All three are in good physiological condition and contribute to the wider street scene.

17. Immediately outside the property on the public highway are two London Plane trees. These are under the ownership of the London Borough of Richmond upon Thames. T8 is a young specimen which is clearly struggling to survive. It is in poor physiological condition and leaning to the east. T9 is a mature specimen which has been recently crown reduced. There are two Ganoderma brackets at the base on the roadside. Ganoderma is a severe wood decay fungi which can cause decay in the lower stem and upper root horizons.

18. The character of the property typifies the surrounding area.

Arboricultural Impact Assessment

Presence of Statutory Protection

19. The website for the London Borough of Richmond upon Thames has confirmed that the site is located with the CA 25 Castelnau Conservation Area. Therefore, six weeks' notice has to be given to the local authority before undertaking any tree works.

20. There are no Tree Preservation Orders on site or in adjacent gardens.

Effect of Development on Amenity Value

21. No trees are to be removed as a result of the proposed development. Therefore, the wider visual amenity will remain unaffected.

Above & Below Ground Constraints

22. The footprint of the building will not be increased. Therefore, there will be no additional pressure on the rooting habitat of nearby trees.

23. The first-floor extension does not project any further towards the rear than the current rear elevation. Therefore, there will be no impact on the canopy of T1.

24. The topsoil under the front driveway will already be significantly compacted. However additional ground protection will help to protect the root systems of T4 – T6.

25. To prevent any accidental damage, I would also advocate the crown lifting of T4 – T6 to the pollard heads.

Site Access Constraints

26. There are no access constraints which require arboricultural intervention.

The Construction Process

27. Protective fences should be erected prior to any aspect of the development process. This means fences should be the first thing to be erected on site and the last thing to be removed.

28. The sequence of construction events will be as follows;

    - Installation of protective fences
    - Construction phase
    - Remove protective fences

29. This logical sequence of events must be adhered to in order to ensure the smooth running of the construction and all parties are aware of the need to recognise the importance of the CEZ.

Infrastructure Requirements

30. As mentioned previously I have not seen any plans relating to the location of drainage or service runs. Suffice to say that they should be located outside of any RPA wherever possible. If new runs are required and they need to pass within the CEZ, careful positioning must be given consideration from the outset. Any installation must be carried out in strict accordance with National Joint Utilities Guidelines (NJUG) Volume 4 - *Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees* and BS 5837 section 7.7.

Proximity of proposal to trees

31. The orientation of the building in relation to the retained trees is not going to alter. Therefore, the shading being experienced now will not increase.

Modifications Proposed to Accommodate Building/Trees

32. I do not envisage any modifications to the design being necessary to accommodate nearby trees.

Mitigation Planting

33. No trees are to be removed so any calls for mitigation planting would be unreasonable.

Arboricultural Method Statement (AMS)

Pre-development works

34. The following works will need to be undertaken prior to commencing building works.

    - **T4-T6 – crown lift to height of pollard heads**

35. It will be the responsibility of the tree contractor to ensure that all the necessary consents have been sought from the local authority and third party tree owners.

36. Where stumps are to be removed within the RPA for any retained tree, grinding will be kept to a maximum depth of 100mm.

Timing of operations

37. A logical sequence of events is to be observed as follows;

    - Installation of protective measures
    - General demolition/construction phase
    - Remove protective measures

38. No tree pruning works are to take place in early spring (bud break) or autumn (leaf fall) so as to minimise stress levels on the trees in question.

Pre-Commencement Site Meeting

39. A pre-commencement meeting will take place on site, with the appointed arboricultural consultant, the tree contractor, the site manager and the local authority arboricultural officer in attendance. The purpose of this meeting is to ensure that everyone fully understands the implications of the Arboricultural Method Statement and to agree on finer points of detail prior to any works commencing.

Site Monitoring

40. All site monitoring will be undertaken by a suitably qualified and experienced Arboriculturalist. Key operational points will be agreed in writing with the client and LPA prior to commencement of works. Typically, these will include;

    - Remedial tree works
    - Installation of protective measures
    - Demolition works
    - Installation of services
    - Removal of protective measures
    - Landscaping
    - Site completion

41. Monitoring will be undertaken at intervals requested by the LPA. A checklist will be completed, and a copy will be retained by the Site Manager with a copy sent to the LPA within 5 working days.

42. Any defects requiring attention will be notified to the Site Manager and Client (copied to the LPA by e-mail). Any emergencies will be notified to the Client and LPA by phone.

43. Day to day site supervision will be the responsibility of the Site Manager. They will be aware of the tree protection measures and significant steps in the development process which have arboricultural implications. To ensure compliance the Site Manager will undertake a site briefing with the retained Arboriculturalist before the commencement of works.

44. A final sign off visit will be carried out at the end of the development and a formal letter sent both to the client and the LPA to indicate the end of the monitoring period.

Where responsibilities lie

45. It will be the responsibility of the Site Manager to ensure that the AMS is adhered to at all times by site operatives, sub-contractors and hauliers during the construction process.

46. Should any problems arise the Site Manager will immediately inform the arboricultural consultant who will assess the situation and make recommendations accordingly. If modifications to the AMS are proposed the arboricultural consultant will immediately advise the local authority arboricultural officer.

Erection and Location of Protective Fencing

47. All protective fences are to be erected, in accordance with the Tree Protection Plan (TPP – Appendix c) and BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations, prior to any development works on site. This will include demolition works.

48. The specification for the protective fencing (in blue on the TPP) will comply with Figure 2 in BS 5837:2012 and be mounted on a horizontal and vertical framework of scaffold poles made fast in the ground. Panels of weldmesh or 20mm exterior plywood shall be fixed to the framework with wire or scaffold clamps.

49. All fences will not be moved without the express permission of the local authority Arboricultural Officer.

50. All site operatives will be made fully aware of the function of the protective fencing and its importance in the construction process as part of their site induction. All weather notices will be placed on all the protective fencing stating words such as – “Construction Exclusion Zone – Keep Out”.

51. The Construction Exclusion Zone (CEZ) shall remain sacrosanct throughout the entire development process. No access will be permitted within the permanently fenced areas. Ground levels will not be changed within them and existing vegetation and topsoil will remain undisturbed.

52. If any roots smaller than 25mm require pruning to facilitate installation, this will be done by a suitably qualified and experienced Arboriculturalist using sharp bypass secateurs/handsaw. Roots larger than 25mm should only be severed following consultation with an Arboriculturalist as such roots might be essential to the trees health and stability. Any exposed roots should be immediately wrapped or covered to prevent desiccation. Any wrapping should be removed prior to backfilling.

Ground Protection

53. Before commencing works, heavy duty ground panels (held in place by road pins) shall be placed in the area next to T4 – T6 (see TPP). This will ensure that any plant will be tracking upon a protected surface. These panels shall remain in situ for the duration of the build. Plant must not traverse on unprotected ground.

Surplus Arisings

54. Skips will not be placed within any CEZ or adjacent to any protective fencing and no demolished material will be stockpiled against any protective fencing.

55. No fires shall be lit on site.

Service runs/installation

56. If existing utilities are not to be used, the routing of all the drainage and services needs to be considered from an early stage. This will ensure that any encroachment into the CEZ is avoided or kept to an absolute minimum. If the CEZ cannot be avoided then it will be a contractual requirement that all excavations are undertaken by hand and in strict accordance with the 'National Joint Utility Guidelines (NJUG) Volume 4 – Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to trees' and BS 5837 section 7.7.

Site Deliveries / Storage space

57. No building materials are to be stored against any protective fences so as to avoid further compaction for the RPA's.

Location of huts, toilets

58. No site huts or toilets will be placed within a CEZ.

Potential effect of slopes

59. Storage and/or mixing of materials which have the potential to spill and contaminate the soil (such as concrete and fuel) will not take place within 5m of any tree shown to be retained.

Use of Herbicides

60. It is not proposed to use any herbicides on the site.

Compaction avoidance and mitigation

61. As mentioned previously, all CEZ's are to be clearly marked on site and will be avoided. If for any reason the CEZ is compromised, it will be the duty of the site supervisor to contact the arboricultural consultant immediately. Remedial measures will be discussed, and an agreed course of action implemented in consultation with the local authority arboricultural officer. This may involve the use of soil aeration techniques such as an airspade. Action will be dictated by severity and extent of compaction.

Use of sub-contractors

62. Any sub-contractors will be made fully aware of the AMS and the importance of the CEZ as a part of their site induction by the site supervisor.

Fence removal

63. The protective measures shall be the last item removed from site prior to the implementation of the soft landscaping.

Final Inspection

64. Prior to handover, following the completion of the development an Arboriculturalist will inspect the trees on site to check for any indications of accidental damage or change in the condition of any tree.

65. A schedule of remedial works will be drawn up to ensure that there are no outstanding tree work issues prior to handover.

Remedial tree works

66. Any tree works must be undertaken in accordance with BS 3998 – 2010 Tree Work – Recommendations and only once the necessary procedure has been undertaken with the Local Authority.

67. Under the Wildlife and Countryside Act 1981(Section 1) it is an offence to take damage or destroy the nest of any wild bird while that nest is in use or being built. Planning consent for a development does not provide a defence against prosecution under this act. Trees and scrub are likely to contain nesting birds between 1 March and 31 July. In order not to contravene the Wildlife and Countryside Act 1981 the timing of the tree surgery works should avoid the bird nesting season (March – May).

68. Under the Wildlife & Countryside Act 1981, The Countryside Rights of Way Act 2000 and The Conservation Regulations 1994 (known as the Habitats Directive) it is an offence to:

- Intentionally kill, injure or take a bat.
- Possess or control a live or dead bat, any part of a bat, or anything derived from a bat.
- Intentionally or recklessly damage, destroy or obstruct access to any place that a bat uses for shelter or protection.
- Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection.

69. If a bat roost is suspected please contact the Bat Conservation Trust on 0845 1300 228 or at www.bats.org.uk**.**

Conclusion

70. No trees are to be removed as a result of the proposal, so the wider visual amenity will remain unaffected.

71. The footprint of the proposal is not being increased, therefore, there will be no further encroachment into of any RPA's.

72. If the recommendations listed in the AMS and shown on the TPP are adhered to, I see no reason why this development should not be able to proceed without undue pressure on the existing tree cover.

Yours truly,

Dominic Blake PD Arb (RFS) MArbor A
May 2024

Appendices

a) Survey schedule
b) Tree Constraints Plans (1:150)
c) Tree Protection Plan (1:150)
d) Site Photographs
e) Protective barrier
f) Site monitoring checklist
g) Fence signage

References

- *BS 5837:2012 - Trees in relation to design, demolition and construction - Recommendations*
- *BS 3998:2010 - Tree Works - Recommendations*
- *National Joint Utilities Group (NJUG) Volume 4*

APPENDIX A

BS 5837: 2012
TREE SURVEY

Advanced Tree Services

Arboricultural Survey – Definitions

Hgt	Tree Height (height in metres, measured with a clinometer)
SD	Stem diameter at 1.5 metres above ground level (in millimetres)
N-E-S-W	Branch spread taken at four compass points (in metres)
Crown clearance	Height of crown clearance above adjacent ground level (in metres)
Life Stage	**Y**- Young **SM** – Middle Aged **M** – Mature **OM** – Over Mature **V** – Veteran
P.Cond	Physiological condition **G** – Good **F** – Fair **P** – Poor **D** - Dead
S.Cond	Structural condition - General comment on safety of tree
Radius	Root Protection radius (m)
RPA	Root protection area (m^2)
ERC	Estimated remaining contribution in years
Category grading	Trees are categorized in accordance with the cascade chart given as Table 1 in B.S.5837:2012. **A -** High quality & value (40 yrs+) **B -** Moderate quality & value (20 yrs+) **C -** Low quality & value (10 yrs+) **U** – Those 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

(NB. Any value suffixed with'#' is an estimated value)

ADVANCED TREE SERVICES

Table 2 - BS 5837:2012 - Trees in Relation to design, demolition and construction - Recommendations - Cascade chart for tree quality assessment

TREES FOR REMOVAL				
Category and definition	Criteria			Identification on plan
Category U Those in such a condition that any existing value would be lost within 10 years and which should in the current context, be removed for reasons of sound arboricultural management	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 U category trees (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning). Trees that are dead or are showing signs of significant, immediate and irreversible overall decline. Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality. NOTE:- Category U trees can have existing or potential conservation value which it might be desirable to preserve.			**RED**
TREES TO BE CONSIDERED FOR RETENTION				
	Criteria - Subcategories			Identification on plan
Category and definition	**1 Mainly Arboricultural values**	**2 Mainly landscape values**	**3 Mainly cultural values, including conservation**	
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 essential components of groups, or of 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)	**GREEN**
Category B				
Trees of moderate quality with an estimated 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 remediable defects including unsympathetic past management and storm damage), such that 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 occuring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	**BLUE**
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 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands but without this conferring on them significantly greater collective landscape value and/or trees offering low or only temporary / transient lanscpe benefits	Trees with no material conservation or other cultural value	**GREY**

SITE: 49b Ionsdale Road SW13 9JR
Client: Richard McGee
Date: 29/04/2024
Surveyor: DB

ADVANCED TREE SERVICES

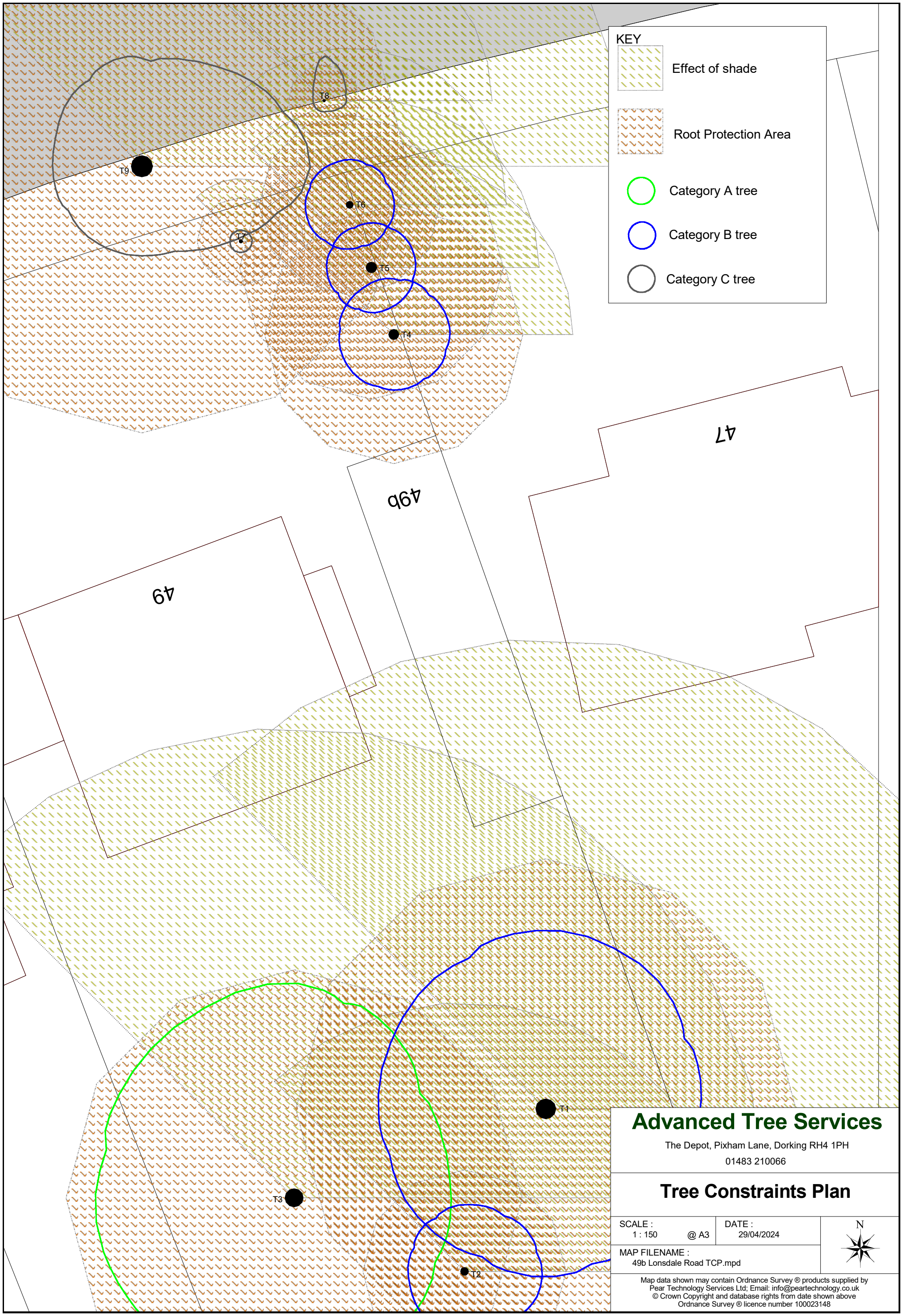
BS 5837 TREE SURVEY

Ref/Tag No.	Species	Hgt	Age Class	SD	N	E	S	W	Phys. Cond.	Radius	RPA	Sq.Sides	Structural Cond.	ERC	Category Grading	Category Criteria
T1	Cedar of Lebanon	21	Mature	910	8	7	7.5	7.5	Good	11	375	19	Good. Twin stem from 3m. Topped in past at 8m. Rubbing branch on north side at 7.5m.	20 to 40 yrs	B	1
T2	Monkey Puzzle Tree	12	Semi-mature	370	3	3.5	3	2.5	Good	4	62	8	Fair. Suppressed to northwest.	20 to 40 yrs	B	1
T3	Cedar of Lebanon	21	Mature	830	9.5	7	8	9	Good	10	312	18	Good. Hazard beam on lowest branch on north side	20 to 40 yrs	A	1
T4	Lime	8	Semi-mature	470	2.5	2.5	2.5	2.5	Good	6	100	10	Fair. Pollard at 4.5m. Co dominant stems at 2.5m.	20 to 40 yrs	B	1
T5	Lime	7.5	Semi-mature	480	2	2	2	2	Good	6	104	10	Fair. Pollard at 4.5m	20 to 40 yrs	B	1
T6	Lime	7	Semi-mature	330	2	2	2	2	Good	4	49	7	Fair. Pollard at 4.5m	20 to 40 yrs	B	1
T7	Common Hawthorn	2.8	Mature	160	0.5	0.5	0.5	0.5	Fair	2	12	3	Fair. Heavily reduced. Poor form.	<10 yrs	C	1
T8	London Plane	7.5	Young	130	2	1	0.5	0.5	Decline	2	8	3	Poor. Extensive dieback. Leaning to east. Council owned.	<10 yrs	C	1
T9	London Plane	21.5	Mature	970	5	7.5	4	4	Good	12	426	21	Poor. Ganoderma at base on roadside. Co dominant stems from 4m. Heavily reduced. Council owned.	10 to 20 yrs	C	1

	Owned and maintained by Council

APPENDIX B

TREE CONSTRAINTS PLAN



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The Depot, Pixham Lane, Dorking RH4 1PH

01483 210066

Tree Constraints Plan

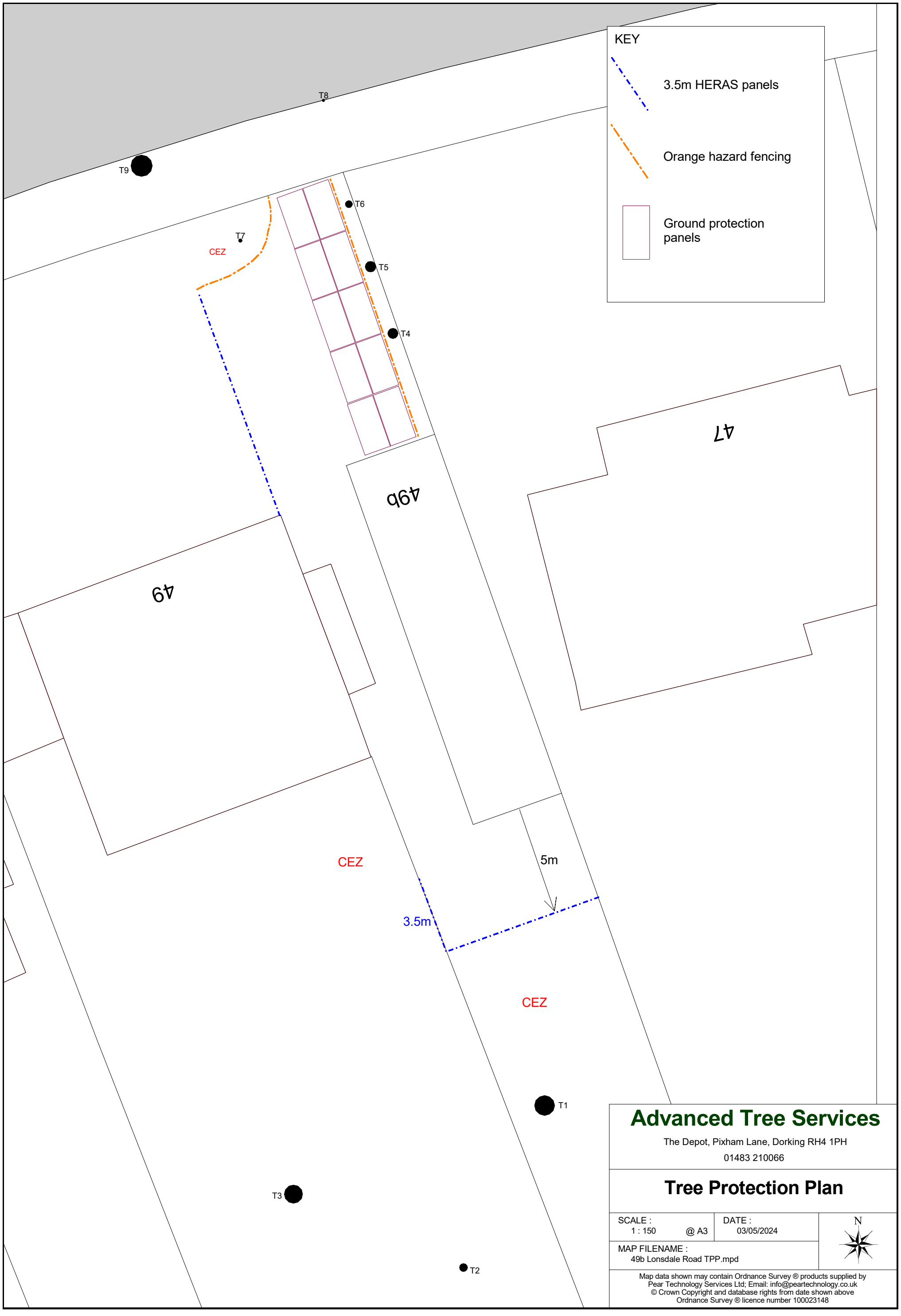
SCALE :	DATE :
1 : 150 @ A3	29/04/2024

MAP FILENAME :
49b Lonsdale Road TCP.mpd

N

APPENDIX C

TREE PROTECTION PLAN



Advanced Tree Services

The Depot, Pixham Lane, Dorking RH4 1PH

01483 210066

Tree Protection Plan

SCALE :	DATE :
1 : 150 @ A3	03/05/2024

MAP FILENAME :
49b Lonsdale Road TPP.mpd

N

APPENDIX D

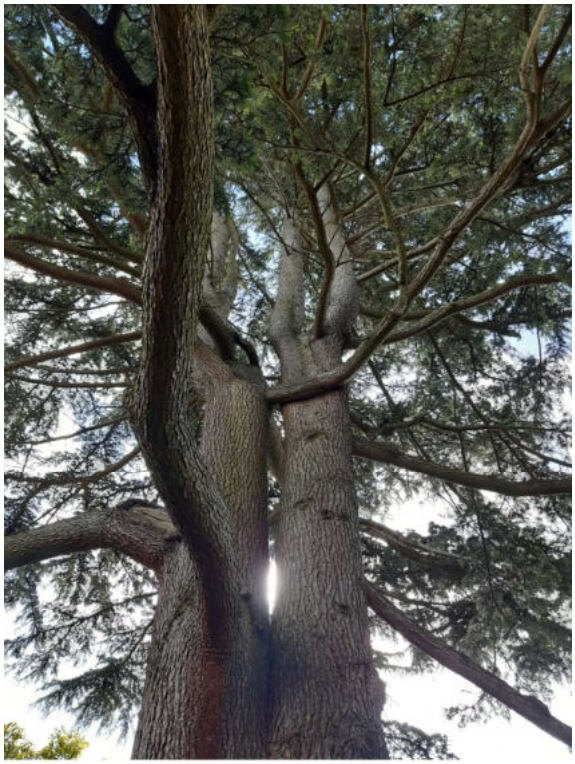
SITE PHOTOGRAPHS

49b Lonsdale Road SW13 9JR (29.04.2024)

T1 - Cedar

Shrubs to the rear of existing building

49b Lonsdale Road SW13 9JR (29.04.2024)



Rubbing branch on T1

Twin stem on T1

49b Lonsdale Road SW13 9JR (29.04.2024)

T2 - Monkey Puzzle

T4 - T6 - Lime

49b Lonsdale Road SW13 9JR (29.04.2024)

T8 - London Plane

Ganoderma at the base of T9

49b Lonsdale Road SW13 9JR (29.04.2024)

T7 - Hawthorn

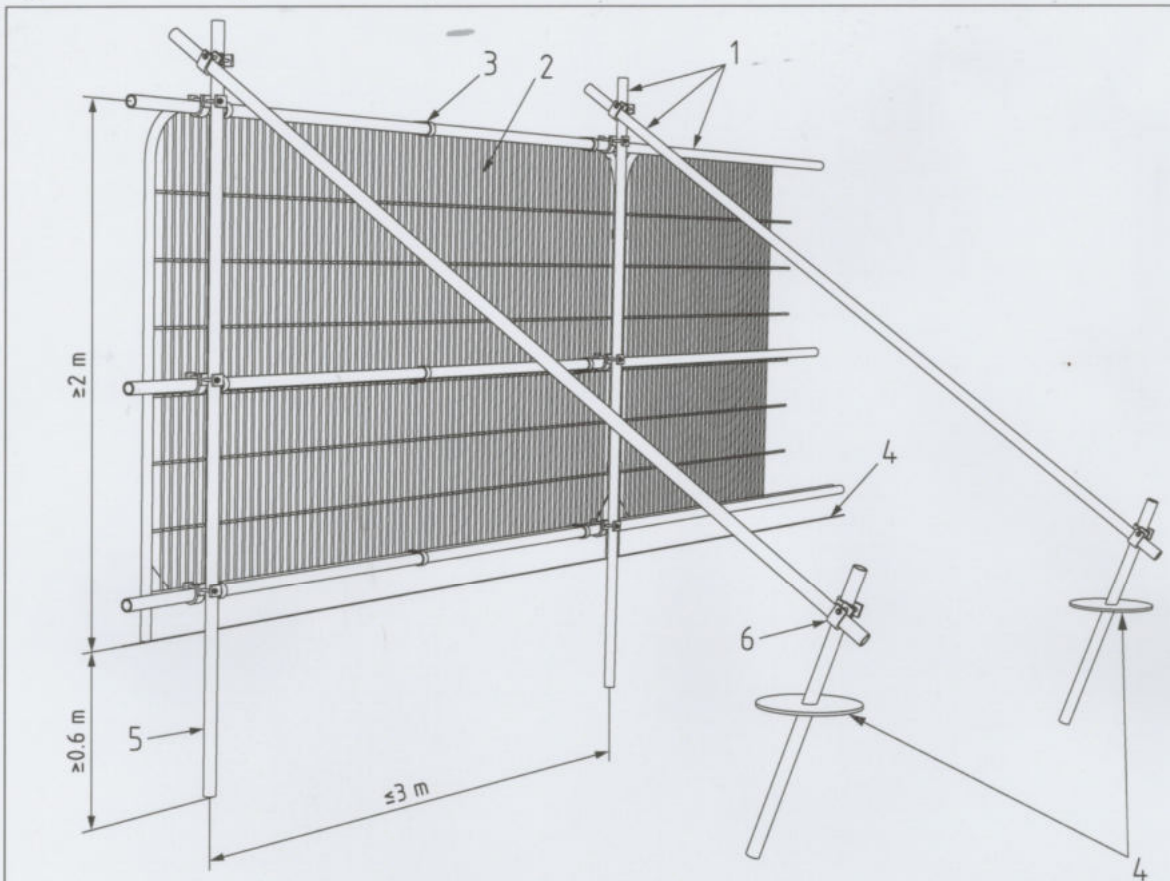
APPENDIX E

DETAIL OF TREE PROTECTION BARRIER

BRITISH STANDARD 5837:2012

Trees in relation to design, demolition and construction - Recommendations

Figure 2 **Default specification for protective barrier**



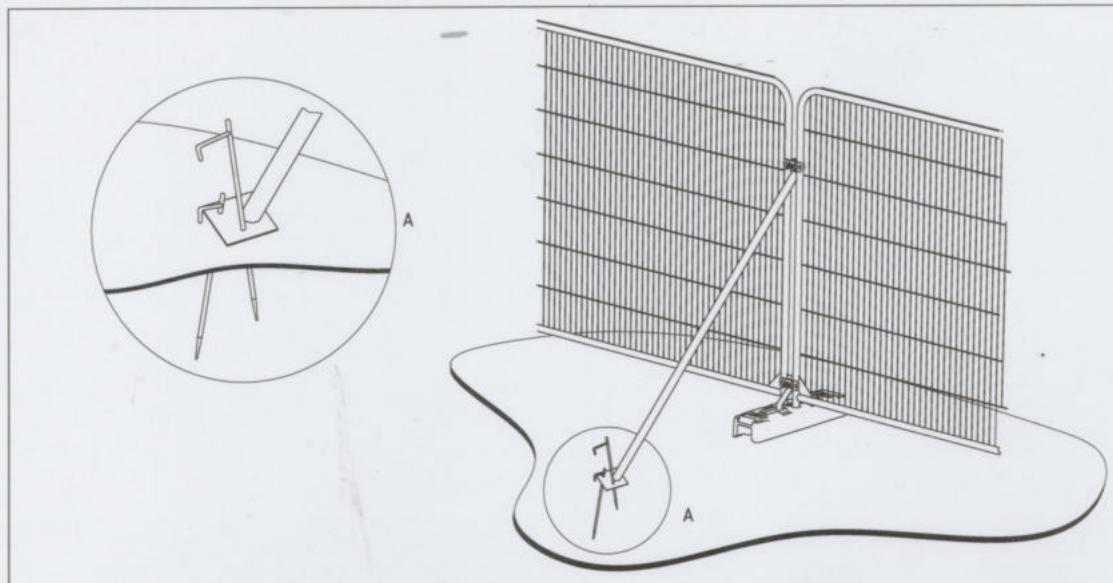
Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

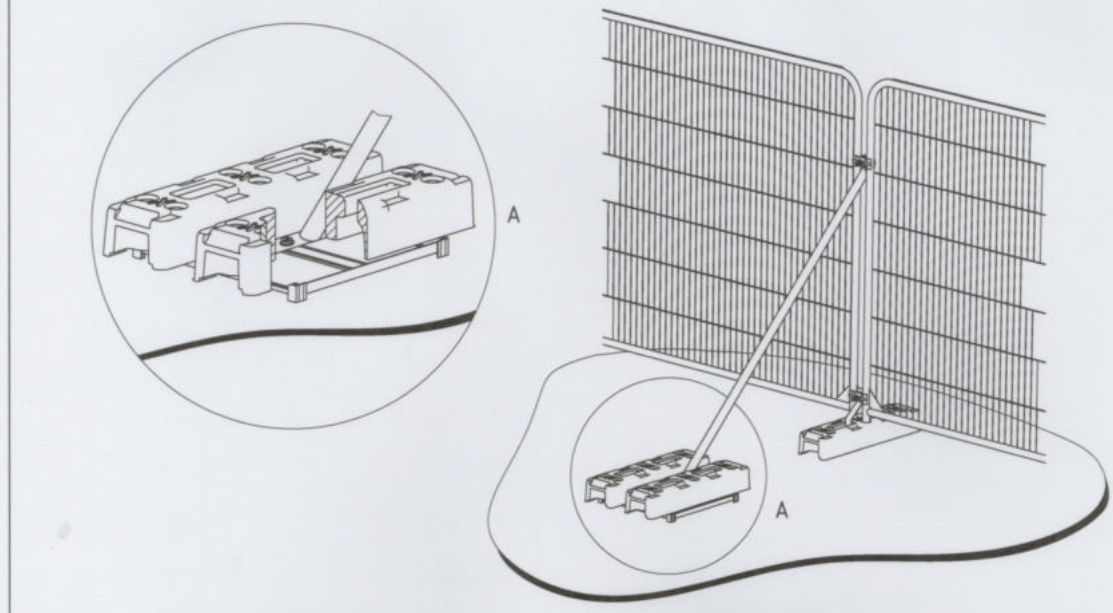
BRITISH STANDARD 5837:2012

Trees in relation to design, demolition and construction - Recommendations

Figure 3 **Examples of above-ground stabilizing systems**



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

Example of Orange Barrier Mesh

APPENDIX F

SITE SUPERVISION CHECKLIST

BS 5837:2012 – Trees in Relation to Design, Demolition and Construction – Recommendations

ARBORICULTURAL SITE SUPERVISION - SUMMARY

1. Once retained as Arboriculutral Consultants for a specific development site, all site monitoring will be undertaken by a suitably qualified and experienced Arboriculturalist.

2. Our Arboriculturalist will be present throughout the key operations to ensure compliance with the Arboricultural Method Statement and Tree Protection Plan. Key operational points will be agreed in writing with the client and LPA prior to commencement of works. Typically these will include;

    - Remedial tree works
    - Installation of protective measures (fences and ground)
    - Installation of site facilities
    - Demolition works
    - Installation of services
    - Landscaping within RPA's
    - Site completion

3. Monitoring will be undertaken on a fortnightly basis as well as ongoing communications with the Client, Site Manager and LPA. A checklist will be completed (*appendix a*) and a copy will be retained by the Site Manager with a copy sent to the LPA.

4. Monitoring visits will generally be unannounced. Upon arrival the Arboriculturalist will check in at the site office and inspect the tree protection measures in conjunction with the Site Manager. The Arboriculturalist will also visit the site at pre-determined dates to view specific operational issues (see above).

5. Any defects requiring attention will be notified to the Site Manager and Client (copied to the LPA by e-mail). Any emergencies will be notified to the Client and LPA by phone.

6. Day to day site supervision will be the responsibility of the Site Manager. They will be aware of the tree protection measures and significant steps in the development process which have arboricultural implications. To ensure compliance the Site Manager will undertake a site briefing with the retained Arboriculturalist before the commencement of works.

7. A final sign off visit will be carried out at the end of the development and a formal letter sent both to the client and the LPA to indicate the end of the monitoring period.

www.atstrees.co.uk
info@atstrees.co.uk
Tel: 01483 210066

Arboricultural Monitoring Report Sheet

(BS 5837:2012 Trees in Relation to Design, Demolition and Construction - Recommendations)

Client		**Planning Ref:**	
Planning Authority		**Date of inspection**	

Site Address	
Site Checklist	

Protective fencing in place	
Protective fencing to specification	
Ground protection in place (if applicable)	
Site Foreman briefed	
Tree(s) damaged?	
Remedial works required	

General Comments:

Recommendations:

Report sent to LPA:		**Inspection by:**	

ARB Approved CONTRACTOR trees.org.uk

bsi. ISO 9001 Quality Management | ISO 14001 Environmental Management | OHSAS 18001 Occupational Health & Safety Management

CHAS

APPENDIX G

PROTECTIVE FENCE WARNING SIGNS

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