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Arboricultural Survey
Impact Assessment & Method Statement
Report (BS5837:2012)

Site

Kings Road
Devonport
Plymouth

Client

Plymouth Argyle Football Club

Date of Report:

August 2025

Report Reference:

AIA/MF/0140/25

Report Prepared by:

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1.0 Instructions

1.1 This report has been commissioned by Kings Road, Devonport, Plymouth to survey, assess and provide an Arboricultural Impact Assessment and Method Statement for the trees sited within close proximity of proposed highway works at Kings Road, Devonport, Plymouth.
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2.0 Introduction

2.1 A site visit was conducted on 11th August 2025 to survey and assess the trees. The weather at the time of inspection was mild with trees in the late growing season.

2.2 The tree survey, report and recommendations have been compiled for the 26 no. trees (T1-T26) assessed within the site and neighbouring sites where relevant.

2.3 The details of the subject trees are set out in the Tree Survey Schedule within *Appendix A*. The trees were surveyed on the date and time shown above and the tree survey assessment information for the tree describing size, condition and surroundings are found within this appendix.

2.4 The trees located within the site are shown in tree survey drawings T001-T003, Appendix B, and these correspond to the tree survey results table, Appendix A. Photographs of the trees can also be found in Appendix C.

2.5 This report and the opinions within it have been produced by Marcus Foster, a qualified arboriculturist and Professional Member of the Arboricultural Association with over 25 years experience and holding a National Diploma in Arboriculture, the Arboricultural Association's Technicians Certificate, Professional Tree Inspection Certificate (LANTRA) as well as a degree in History and Society. Work experience within the industry includes work as a Contracts Manager for an Arboricultural Association Approved Company, a Local Authority Tree Preservation Officer and an independent Arboricultural Consultant. As a consultant many of projects undertaken are in the inner London Boroughs of Islington, Hackney, Westminster, Camden, Southwark and RBKC, making Marcus Foster familiar with the most recent requirements of development and constraints on urban trees.

3.0 Survey Details and Scope

3.1 The tree survey included the 26 no. trees (T1-T26) as shown in the survey, *Appendix A*, and also highlighted on the site plans, *Appendix B*.

3.2 The following information was recorded for each tree and is shown in the Tree Schedule included in *Appendix A*:

- Number: an identity number which cross-references locations shown on the plan in Appendix A with the schedule in Appendix B.
- Species: listed by common names
- Tree Height: height in metres (m)
- Tree Spread: spread in metres (m)
- Stem diameter: measured in millimetres (mm) and taken at 1.5m above ground level
- Age Class: Y (young); EM (early-mature); M (mature); OM (over-mature)
- Vigour: G (good); F (fair); P (poor); D (dead)
- Structural Condition: G (good); F (fair); P (poor); D (dead)
- General Condition Specific comments relating to each tree
- Estimated Remaining Contribution (years)
- BS5837 Category Grading
- Protection Distance m2 Area (where applicable – BS5827: 2012)
- Protection Distance Radius (where applicable – BS5827: 2012)

3.3 Information recorded in the tree survey, *Appendix A* is expanded in the report findings and preliminary recommendations have been made in *Section 5*.

3.4 Findings as shown within *Appendix A* and assessed within *Section 5* are also highlighted within *Appendix B* which incorporates the Tree Constraints Plan (TCP) - drawing T002 addressing areas where arboricultural solutions are required. The Tree Protection Plan (TPP) - drawing T003 provides outline tree protection measures.

4.0 Survey Limitations

4.1 No soil excavations have been carried out.

4.2 This report only considers the trees and conditions at the time of inspection. As the inspection was only visual no guarantee can be given concerning the condition of the wood at present in any of the trees inspected and furthermore that no future problems or deficiencies may arise.

4.3 The survey has been undertaken as a survey of the trees without prior influence of the development and implicating factors.

4.4 No invasive tools were used during this site survey.

4.5 It should be noted that vegetation including shrubs within this / the neighbouring sites have not been included in the survey as none were within close or relevant proximity .

4.6 The survey has been undertaken from within the site only.

4.7 No additional documentation unrelated to the property or development has been referred to for the trees or the property for the compilation of this report.

5.0 Tree Survey Summary

5.1 The trees have been surveyed in accordance with BS5837: 2012 'Recommendations for trees in relation to construction' (BS5837: 2012) and have been rated as follows:

Category 'A' trees

Trees of high quality with an estimated remaining life expectancy of at least 40 years. Trees have been categorised as 'A' trees for one of the following reasons:
- Mainly arboricultural qualities
- Mainly landscape qualities
- Mainly cultural values including conservation

Within the Site Plan (Appendix B) those trees rated as 'A' category trees have a **green** outline as denoted within the site plan key / survey.

T9, T22, T23, T26

Category 'B' trees

Trees of moderate quality with an estimated remaining life expectancy of at least 20 years. Trees have been categorised as 'B' trees for one of the following reasons
- Mainly arboricultural qualities
- Mainly landscape qualities
- Mainly cultural values including conservation

Within the Site Plan (Appendix B) those trees rated as 'B' category trees have a **blue** outline as denoted within the site plan key.

T1, T6, T8, T10, T11, T15, T19, T20, G21, T24, T25

Category 'C' trees

Trees of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm. Trees have been categorised as 'C' trees for one of the following reasons

- Arboricultural qualities - unremarkable trees of very limited merit
- Mainly landscape qualities
- Trees with no material conservation or cultural value

Within the Site Plan (Appendix B) those trees rated as 'C' category trees have a **grey** outline as denoted within the site plan key.

T2, T3, T4, T5, T7, T12, T14, T16, T17, T18,

Category 'U' trees

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.Within the Site Plan (Appendix B) those trees rated as 'U' category trees have a **red** outline as denoted within the site plan key.

T13

5.2 The trees have been surveyed taking into account condition, general health and form without the development process influencing the survey. In addition they have also been surveyed taking account of amenity value that is offered in relation to both the landscape and surrounding buildings and streetscape. This report outlines the impact that the proposed development will have on the overall treescape and landscape; it provides recommendations to ensure that long-term amenity value for the area is retained.

5.3 The report has been written with close reference to the British Standard Guidance, British Standard 5837: 2012 'Recommendations for trees in relation to construction' (BS5837: 2012), which addresses the juxtaposition between trees and structures. The Arboricultural Impact Assessment highlights areas where the trees will require protection which should be addressed within the Arboricultural Method Statement (AMS) and/or Tree Protection Plan (TPP) specific to the site and proposed scheme, and corroborating with all construction and landscape method statements as relevant.

5.4 The report specifies precautions which shall be taken when working close to retained trees. Important terms include:

Root Protection Area (RPA)
The area defined as requiring protection from development from retained trees within BS5837 (2012). Using a calculation provided within BS5837 a radius distance is provided based on a measurement of the main stem taken at 1.5m height.

Construction Exclusion Zone (CEZ)
This is the RPA where no construction activity should occur and damage is prevented by either installing fencing to restrict access or installing ground protection that allows limited access above the ground, while protecting the rooting environment below.

Due to site constraints and the encroaching nature of development for an area within the RPA outside the CEZ where works are proposed, works must be carried out with care to minimise any impact on the tree rooting environment.

Tree Protection Plan (TPP)
The document which defines the extent and methodology of tree protection for the entire development process. This should be referred to AT ALL TIMES by the principal contractor and shall ensure safe protection of all retained trees on site.

Precautionary Area
An area where works must be undertaken with direct consultation with methodology as specified within the AMS report and / or scheme of Arboricultural supervision

6.0 Arboricultural Impact Assessment

Site Overview

6.1 The 26 no. trees (T1-T26) are located as follows:

T1-T26:
Kings Road Devonport, Plymouth, PL1

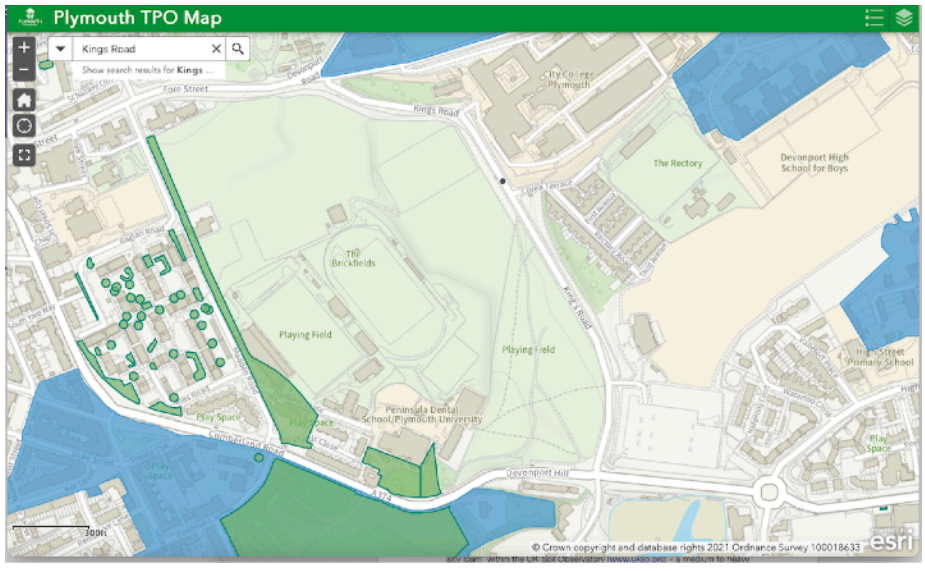
6.2 The following statutory checks have been made for the site:

LOCAL PLANNING AUTHORITY
Plymouth City Council

CONSERVATION AREA STATUS
N/A

TREE PRESERVATION ORDER (TPO) STATUS
N/A

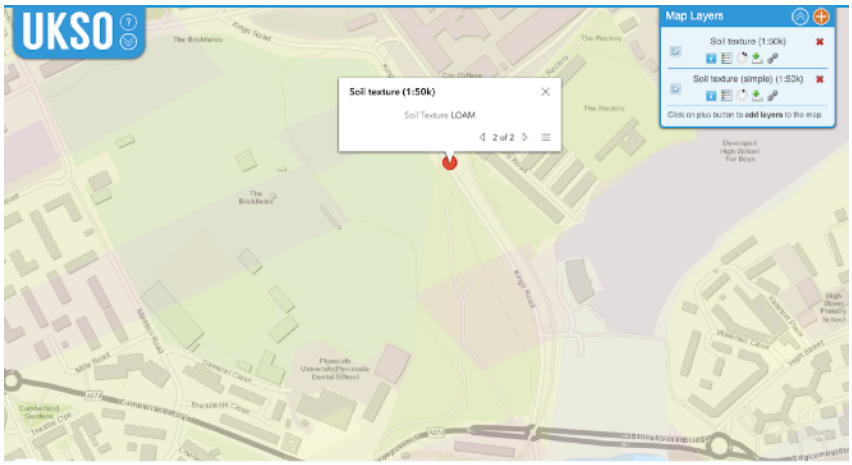
6.3 The site location and absence of statutory protection due to trees being within the public realm is confirmed as below:



Extract from:

https://plymcc.maps.arcgis.com/apps/webappviewer/index.html?id=f540c8258f1d4f39bb50e37fbd9cc526

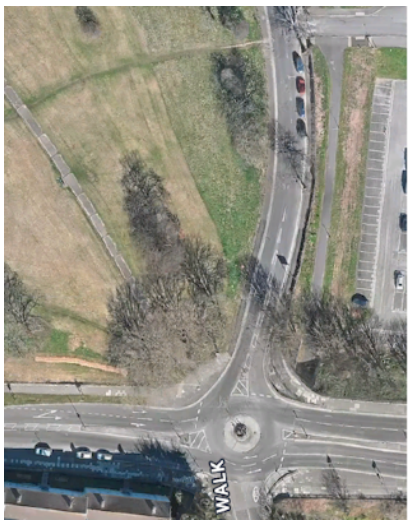
6.4 The underlying soil to this area is classified as 'loam' and 'clayey loam to silty loam' within the UK Soil Observatory (www.ukso.org) - a medium to heavy soil mix. The presence of a clay element within the soil is significant in terms of both tree protection and foundation design. Clay soils can experience substantial volume changes when vegetation extracts moisture from the ground they are also prone to compaction when wet; the soil is deemed as being of medium to heavy texture with greater susceptibility to compaction and volumetric change. Any foundations should also be designed in accordance with the recommendations contained within NHBC Chapter 4.2 (National House Building Council, 2010) and should account for the possibility of both subsidence and heave. The soil profile is confirmed as below:



Extract from Soil Observatory - 24/09/23 - www.ukso.org

6.5 The site comprises the public highway where highway updates shall be made; comprising the north and south section of Kings Road:

Kings Rd, north section: trees T1-T18



Kings Rd, south section: trees T19-T26

6.6 Development proposals are for

Public highway updates incorporating tree removal to facilitate road safety updates

6.7 For the purposes of this report, reference has been made to the following plans for the proposed development:

Topographical Survey
25-3772-001-002 Topographical Survey - Project Zeus, Plymouth
25-3772-UT01_04 - Utility Survey - Project Zeus

Sands

6.8 The summary of arboricultural impact which shall be assessed is as follows:

•Loss of 1 no. B Category tree: T5, T24

•Loss of 3 no. C Category trees - T2, T4

• Potential compaction and damage of the retained trees in relation to the highway update works

• Potential damage to canopies of the retained trees surrounding the site during highway update works

• The use of and storage of materials and chemicals on site within close proximity of the trees

• Impact of development upon trees via future occupancy / updated usage of the site

• Replacement tree planting strategy

6.9 The trees and the impact from the proposed development are evaluated within this section to determine overall arboricultural impact from the proposed development. Where trees are retained the Root Protection Area (RPA) for each tree is evaluated in relation to proposed development works. The following is assessed within this section:

(i) Where tree protection measures are deemed appropriate these are highlighted

(ii) Mitigation for tree loss where trees are proposed for removal

6.10 Reference is also made to the Local Authority's Local Plan and wider relevant policy:

(i) Plymouth & South West Devon Local Plan 2014 - 2034 (Adopted 2019)

Specifically Policy GR06 Delivering Plymouth's natural network.which states as follows:
The City will ensure that the natural environment is fully considered and embedded in the delivery of the city's vision for growth. The Natural Network will consist of a functional network of green and blue spaces that support a high quality of life for communities as well as providing an attractive environment for investment, space for nature to thrive and increased resilience to the impacts of climate change.

(ii) PSWD JLP Supplementary Planning Document (2021)

Specifically Trees, woodlands and hedgerows (DEV28) states as follows
The LPAs expect all applications to adhere to the mitigation hierarchy in relation to trees:Avoid loss; Mitigate; Compensate; and, Enhance.

(ii) Plymouth's Plan for Trees (Plymouth City Council)

(iii) National Planning Policy Framework February 2019 Ministry of Housing, Communities and Local Government

Arboricultural Impact Assessment

Tree Survey Overview

6.11 The trees sited within the subject site are of the following species:

Acer pseudoplatanus (Sycamore)
Platanus x acerifolia (London plane)
Pinus sylvestris (Scots pine)
Tilia europaea (Common lime)
Ulmus procrea (English Elm)

6.12 The general condition of the 26 no. trees (T1-T26) is summarised below as follows:

TREE SURVEY CONDITION SUMMARY			
Tree No.	Common Name	BS5837 Category	Summary of Condition
T1	Common lime	B	Previously pollarded; lapsed 5 yrs +
T2	Common lime	C	Vehicular damage to base; limited lifespan. Poor location of tree in relation to curbstone directly to west
T3	Scots pine	C	Off site; low growth extending within highway
T4	Common lime	C	Pollarded; limited branch framework. Poor location of tree in relation to curbstone directly to west
T5	Common lime	C	Pollarded; limited branch framework. Poor location of tree in relation to curbstone directly to west
T6	Common lime	B	Previously crown reduced, lapsed managed 5 years plus. Poor location of tree in relation to curbstone directly to west
T7	Common lime	C	Pollarded; limited branch framework. Poor location of tree in relation to curbstone directly to west
T8	Common lime	B	Previously crown reduced, lapsed managed 5 years plus Poor location of tree in relation to curbstone directly to west
T9	Elm	A	Mature form; excellent specimen for species with limited pruning history
T10	Common lime	B	Good form. Previously crown reduced, lapsed managed 5 years plus. Poor location of tree in relation to curbstone directly to east

T11	Common lime	B	Previously crown reduced, lapsed managed 5 years plus. Poor location of tree in relation to curbstone directly to west
T12	Elm	C	Poor specimen; limited lifespan
T13	Elm	U	Tree is dead
T14	Elm	C	Poor specimen; limited lifespan
T15	Common lime	B	Limited pruning history except being crown lifted. Good form.
T16	Elm	C	Supressed tree; limited form
T17	Elm	C	Supressed tree; limited form
T18	Common lime	C	Declining form. Crown reduced. Limited lifespan
T19	Common lime	B	Previously reduced, lapsed 5 years +. Crown lifted
T20	Common lime	B	Previously reduced, lapsed 5 years +. Crown lifted
G21	Sycamore	B	Off site multi-stem grouping
T22	London plane	A	Early mature form; developed crown. Low growth developing
T23	London plane	A	Early mature form; developed crown. Low growth developing
T24	London plane	B	Early mature form; developed crown. Low growth developing. Dead section
T25	London plane	B	Early mature form; developed crown. Low growth developing
T26	London plane	A	Early mature form; developed crown. Low growth developing, lifted over highway

Summary photographs are shown within Appendix C and highlight key attributes of the trees and their wider setting.

Arboricultural Impact Assessment - Trees Retained

6.13 For those trees surveyed within close proximity the potential impacts for the trees surveyed are as follows:

(i) For tree T19 & T25, drop kerb works within close proximity of trees northern RPA

(ii) For tree T19 remedial tree works to facilitate update / include site visibility

(iii) Development / construction site activities where incurring within or within close proximity of all retained trees - including:

- General development site activities including storage of spoil / materials / chemicals
- Use of heavy machinery, welfare, site offices and installation of utilities / drainage, not exhaustive of other practice
- Welfare

6.14 Protection of all retained trees is justified based on the following:

(i) Application of general tree protection measures for development process for all trees

(ii) Application of site specific tree protection measures for development process including Precautionary Areas highlighted as requiring further protective measures

(iii) Tree works where deemed relevant are restoring cyclical pruning regimes / undertaking general management works in accordance with BS3998: 2010 - Tree Work - Recommendations. Works are applicable for:

- T3: Scots pine
- T20: Common lime

6.15 The following tree protection measures shall be applied as specified within Section 6, AMS and the TPP which shall mitigate against any potential damage ensuring all trees remain protected:

(i) TREE PROTECTION FENCING
Fencing to create Construction Exclusion Zones as shown within the AMS & TPP

(ii) GROUND PROTECTION

Ground protection for RPA area exposed to construction works shall be implemented as shown within the AMS & TPP or as required during development process

(iii) PRECAUTIONARY AREA

For the precautionary area for those retained trees where site features extend within the RPA, proposed updates shall be carried out in accordance with tree protection measures as outlined within the AMS

(iv) PROTECTION FROM SITE STORAGE, INFRASTRUCTURE & WELFARE

Site storage, mixing of chemicals and site welfare shall be sited outside of the RPA of retained trees

(v) FACILITATIVE TREE WORKS

Minor pruning works set out within Tree Works Schedule

Arboricultural Impact Assessment - Tree Removal

6.16 The proposed development requires loss of the following trees:

- B Category tree:
  T24, London plane

- C Category trees:
  T2, Common lime
  T4, Common lime
  T5, Common lime

6.17 The tree removal shall be mitigated with a robust replacement tree planting scheme which will deliver enhanced canopy cover within Plymouth City Council. In accordance with the PSWD JLP Supplementary Planning Document, mitigation for tree removal shall be achieved by delivering the following no. of replacements:

Trunk diameter of tree lost to development (cms) (cm measured at 1.5m above ground level	No. of replacement trees
Less than 15	0-1
15 - 19.9	1
20 - 29.9	2
30 - 39.9	3
40 - 49.9	4
50 - 59.9	5
60 - 69.9	6
70 - 79.9	7
80+	8

Extract from
PSWD JLP Supplementary Planning Document (2021)

6.18 In accordance with the policy, the following no. of replacements shall be applicable for each tree removed

T2 (58cm diameter): 5 no. trees
T4 (48cm diameter): 4 no. trees
T5 (42cm diameter): 4 no. trees
T24 (60cm diameter): 6 no. trees

TOTAL: 19 no. trees to mitigate for removed trees

6.19 The tree removals are of trees which offer the following constraints within the public realm / highway setting:

T2 - Common lime
Limited lifespan based on previous vehicular damage to base of tree with *Kretzschmaria deusta*[1] fruiting bodies as identified during survey confirming limited lifespan of tree

T4 - Common lime
Poorly sited with buttress abutting the curb to west with interaction between carriageway and tree likely in the future. Tree with diminished form being heavily pollarded with limited branch framework

T5 - Common lime
Poorly sited with buttress abutting the curb to west with interaction between carriageway and tree likely in the future. Tree with diminished form being heavily pollarded with limited branch framework

T24 - London plane
Tree with previous management. Of the 4 no. London plane trees to the south west corner of Kings Road, tree T24 is the poorest specimen with dead central leader

These attributes and constraints further justify the tree removal which shall enable a safer road environment in relation to general road traffic conditions and the potential increase in highway and pedestrian traffic which shall likely occur from proposed works at the Brickfields recreation ground.

6.20 The tree planting strategy shall mitigate for those trees removed by providing as follows:

- Tree replacement proposals as mitigation to provide greater than 1:1 ratio of replacement
- 19 no. newly planted trees which will be a mix of native & non native species with varying species to provide diversity
- Mix of medium to large canopy species trees
- Right tree right place mantra adopted in accordance with the Plymouth Tree Plan

[1] *Kretzschmaria deusta* fruiting bodies at the base. The identified fungus is a simultaneous 'soft rot' which in advanced stages, can as described within Fungi on Trees, Watson, G. & Green, T. (Arboricultural Association, 2011*)*

6.21 All replacement plantings shall incorporates a species mix in accordance with the following:

- Climate change resilience
- Pest and disease resilience
- Implementation of scheme to BS8545 (Trees: From Nursery to Independence in the Landscape, 2014)
- Aftercare and establishment programme

Summary of Arboricultural Impact

6.22 The proposed development requires tree protection measures and mitigation for the implementation of development as follows:

Tree Protection applicable to the following trees:
All 'A', 'B' and 'C' category trees where retained

Mitigation applicable for the removal of the following trees:
1 no. 'B' category tree
T24, London plane
3 no. 'C' category trees
T2, Common lime
T4, Common lime
T5, Common lime

6.23 In summary the arboricultural impact as outlined within drawing T003 - Tree Protection Plan (TPP): require the following tree protection measures and mitigation:

(i) TREE PROTECTION FENCING
(ii) GROUND PROTECTION
(iii) PROTECTION FROM SITE STORAGE, INFRASTRUCTURE & WELFARE
(iv) PRECAUTIONARY AREA
(v) FACILITATIVE TREE WORKS

6.24 The tree protection measures and mitigation via replacement planting to include 19 no. trees in accordance with Local Policy shall ensure that the highway update works do not detrimentally impact the amenity value and canopy cover of the public realm. Furthermore the scheme provides improvement of road safety for the direct location of tree removal by retaining the trees of greatest importance and delivering enhancement of canopy cover for areas within close proximity of the Kings Road highway.

7.0 Arboricultural Method Statement

7.1 The following tree protection measures require close adherence AT ALL TIMES as outlined within this report. The measures are outlined within Tree Protection Plan (TPP) - drawing T003.

7.2 **Tree Works**

7.2.1 Tree Works included within Schedule of Works - Section 9 - shall be undertaken at pre-commencement stage.

7.3 **Tree Protection Fencing**

7.3.1 Protection of the trees highlighted for retention must be implemented as explained below and as specified within the TPP - drawing T003:

To provide Construction Exclusion Zone (CEZ). Specified as

(i) BS5837:2012 Figure 2 - see TPP & Appendix E
(ii) Basal Shuttering- see TPP & Appendix E

7.3.2 These measures must remain for the entire construction process in order to provide a comprehensive barrier from the trees

- The area surrounding the trees must be surrounded by protective fencing as outlined in TPP - T003

- The protective fencing used must be suitable for the purpose of excluding construction activity and appropriate to the degree and proximity of work taking place around the retained trees.

- This barrier must remain rigid and complete during the entire construction process. Protection is not required surrounding entire trees where boundary treatments intervene in RPA's as the remainder of the root plate will remain unaffected by virtue of being located within the neighbouring properties

- Once the Exclusion Zone has been protected by fencing all weather notices as included in *Appendix D* must be put onto the barrier warning that the area is a construction exclusion zone.

- No heavy plant shall come into contact with any part of the canopies of the trees.

- No building materials or chemicals shall be stored within the tree protection zone as indicated on the TPP

7.4 **Ground Protection**

7.4.1 Ground protection shall be required where the tree protection fencing requires removal and with written consent of the Local Authority Tree Officer and/or appointed Arboricultural Consultant:

(i) Retention of existing hard landscapes

OR

(ii) Ground protection
- Implementation of 75mm bark mulch layer overlapped with minimum 15mm plyboard surface or load bearing ground protection boards to provide ground protection for development process
- No storage of spoil within this area
- No storage of chemicals within this area

7.4.2 Ground protection may also be applicable for areas where tree protection is required but fencing is not achievable.

7.4.3 Where applied, ground protection shall be removed for final landscapes works within the RPA of retained trees.

7.5 **Storage of Construction site related materials, plant and spoil / Site Welfare & Site Office**

7.5.1 A designated storage area / site welfare & office shall be ocated outside of the RPA of retained trees and within existing hard standing. Strict adherence to this area must be made to this area and any amendment would require written consent from the tree officer.

7.5.2 Site welfare and the site office shall be located outside of the RPA of retained trees. Strict adherence to this area must be made to this area and any amendment would require written consent from the tree officer.

7.6 **Fires**

7.6.1 There must UNDER NO CIRCUMSTANCES be fires within this site.

7.7 **Precautionary Areas**

7.7.1 All Precautionary Areas are shown within the TPP and require tree protection measures applied and to corroborate with construction methodology.

7.7.2 BS5837 (2012) makes provision for undertaking excavations in RPAs, explaining that all excavation must be carried out carefully using spades, forks and trowels, It is important not to damage the bark and wood of any roots. For this area, these tools must be used with no machinery used for the preliminary works.

7.7.3 For the 'Precautionary Area' works where manual excavations within the RPA of retained trees may be required the following must apply:

- Removal of existing surface by hand or where hard landscapes with low pneumatic tools under arboricultural supervision
- Initial excavations to be either of the following as deemed appropriate within construction methodology:

  (i) air spade (see *Section 7.8.5)*
  (ii) hand dug (see *Section 7.8.4)*

7.7.4 For hand dug excavations the following tools are appropriate with methodology described below:

- Initial 750mm to be hand dug excavations to ensure no severance of major roots. With all works for this area undertaken by hand, the severance of any larger roots encountered up to 25mm diameter should then be undertaken by the supervising arboricultural consultant to ensure clean severance

- Where tree root severance is not feasible due to size)significant root density in excess of 25mm diameter size)and nature structural engineering solutions / bridging of tree roots as agreed with consulting arboriculturist must be applied.

- Close adherence with detailed tree root protection specifications as outlined within this report
-

7.7.5 Where Air spade techniques are deemed appropriate these must be operated by qualified contractors. His spades utilise a two-tool air compressor and hand-held lance to dislodge soil, using highly pressurised jets of air. This allows trenches to be excavated without causing the significant root damage associated with the use of conventional digging techniques such as, spade or excavator buckets. Example imagery is shown below:

Example imagery of air spade use for implementing utilities beneath root plate (existing)

7.9 **Final Hard Landscape Works within RPA of Retained Trees**

7.9.1 For final landscaping works the following shall apply where carried out within the RPA of retained trees

-
- Close adherence with detailed excavations and root protections specifications as outlined within *this report*
- No compaction of soils for establishing level base for hard landscapes
- No installation of drainage channels / landscape features without prior written consent of the Local Authority

7.9.2 BS5837 (2012) makes provision for undertaking ground works in RPAs, explaining that all excavation must be carried out carefully using spades, forks and trowels, It is important not to damage the bark and wood of any roots. Specialist tools for removing soil around roots using compressed air may be an appropriate alternative to hand digging, if access is available.

7.9.3 For the construction of proposed hard surfaces that encroach within RPA's damage to tree roots shall be avoided by building them above existing soil level, to avoid any excavations. The locations where these measures will be required are marked clearly on the TPP

7.9.4 Within the RPA of retained trees the tree protection methods for areas currently laid to different surfaces is clearly defined as follows and must adhere to tree protection guidelines outlined within this AMS:

ABOVE SOIL SURFACING (SOFT LANDSCAPE GROUND)
Where within a defined RPA, surfaces shall be installed above existing soil level where located in ground currently unsurfaced (turf removal permitted). Works are deemed as 'Precautionary Area Works' and must be included within the scheme of arboricultural supervision

ABOVE SOIL SURFACING (SURFACED)
Where within a defined RPA, hard surfaces shall be installed above existing soil level where located in ground currently surfaced to levels no deeper than the base of existing surfaces. Works are deemed as 'Precautionary Area Works' and must be included within the scheme of arboricultural supervision

7.10 **Installation of utility services**

7.10.1 The installation and/or amendment of utility services within the RPA of retained trees is not required. However where an amendment is required and utilities are required within the RPA of any retained tree the consulting arboriculturist and Local Authority must be notified prior to any ground tree protection / fencing and barrier removal and the following details adhered to:

- Trenching for the installation of underground services severs any tree roots present and can have a detrimental impact on the structural integrity of affected trees. When services are required to pass through a Tree Protection Area / CEZ, detailed plans showing proposed routes should be drawn up in conjunction with the consulting arboriculturist to avoid long term problems for related trees.

- The preferable method for trenching is to use a 'Air Spade' or similar to remove soil with compressed air, therefore minimising damage to roots in the process. Should hand dug excavations be required within the RPA this shall only be undertaken with arboricultural supervision.

7.10.2 Further reference can be made to National Joint Utilities Group (Volume 4, Issue 2) for guidance but any approach must be approved by both the consulting arboriculturist and Local Authority tree officer.

8.0 Communication, Monitoring and Compliance

8.1 In ensuring that all Tree Protections Specifications as highlighted within this method statement are fully adhered to at all times, it is important to set out for the long term of the development, communication details for key individuals and tasks that require monitoring.

8.2 An Arboricultural Supervision Scheme must be prepared and agreed by Plymouth City Council at pre-commencement which corroborates with the construction sequencing to ensure tree protection measures as outlined within this report are fully enforced and adhered to.

8.3 The key individuals appointed for advising and complying with Tree Protection specifications must adhere to the following at all times:

- Relevant parties / key individuals must be advised of any changes in personnel or contractor during the development process.
- Relevant parties / key individuals must be responsible for relaying information regarding tree protection within work force where deemed applicable / relevant

8.4 Once the Tree Protection Fencing has been installed and for the remainder of the development until the final stage as highlighted in *Section 3: Sequence of Events* above, it must be considered as sacrosanct and should not be removed or altered without prior written consent from the Local Authority tree officer and/or consulting arboriculturist.

8.5 The local authority, Plymouth City Council Tree Officer shall have free access to the site and forward any concerns / recommendations directly to the consulting arboriculturist.

CONSULTING ARBORICULTURIST
Name - Marcus Foster MArborA
Telephone - 07812024070
Contact - Marcus Foster
Email - mail@marcus-foster.com

PLYMOUTH CITY COUNCIL- TREE OFFICER
Name - Tree Officer - Planning
Contact - protectedtrees@plymouth.gov.uk
Telephone - 01752 304366
Email - protectedtrees@plymouth.gov.uk

9.0 Tree Works Schedule

9.1 Tree Removal Works Schedule

TREE WORKS SCHEDULE: TREE REMOVAL WORKS Project Zeus - Kings Road, Devonport, Plymouth				
Tree No.	Common Name	BS5837 Category	Tree Works	Reasons for works
T2	Common lime	C	Fell to ground level and grind out stump	To facilitate development
T4	Common lime	C	Fell to ground level and grind out stump	To facilitate development
T5	Common lime	C	Fell to ground level and grind out stump	To facilitate development
T24	London plane	B	Fell to ground level and grind out stump	To facilitate development

9.2 Tree Pruning Works Schedule

TREE WORKS SCHEDULE: PRUNING WORKS Project Zeus - Kings Road, Devonport, Plymouth				
Tree No.	Common Name	BS5837 Category	Tree Works	Reasons for works
T3	Scots pine	C	Prune low south west crown overhanging highway by 1.5m branch lengths to lift / give clearance	To facilitate development
T20	Common lime	B	Crown reduce height and spread 3-4m branch lengths to previous most recent reduction points Remove all epicormic trunk growth to 5m height	To facilitate development

9.3 All tree work shall be carried out to BS 3998; 2010 Recommendations for Tree Work.

9.4 Tree works shall be undertaken at pre-commencement stage.

9.5 Wildlife & Habitat Protection Guidelines

The tree work specifications included within this report do not provide an exemption from the requirements to comply with the Wildlife and Countryside Act 1981, the Habitats Regulations 1994 and the Countryside and Rights of Way Act 2000, or any acts offering protection to wildlife. Of particular note is the protection offered to bats, birds and their nests, whilst being built or in use. It must be noted that failure to comply with the Acts may result in a criminal prosecution.

Appendices

Appendix A

Tree Survey Schedule (BS5837:2012)

Project Zeus - Kings Road, Devonport, Plymouth

Colour Key: BS5837: 2012 (see Section 3.6)

Tree Survey Key: BS5837: 2012

- · Number: an identity number which cross-references locations shown on the plans
- · Species: listed by common names
- · Tree Height: height in metres (m)
- · Tree Spread: spread in metres (m)
- · Stem diameter: measured in millimetres (mm) and taken at 1.5m above ground level
  m/s - denotes multi-stemmed with measurement taken of largest stem at base
  t/s - denotes twin -stemmed with measurement taken of largest stem at base
  (e) denotes estimated
- · Age Class: Y (young); EM (early-mature); M (mature); OM (over-mature)
- · Vigour: G (good); F (fair); P (poor); D (dead)
- · Structural Condition: G (good); F (fair); P (poor); D (dead)
- · General Condition Specific comments relating to each tree
- · Estimated Remaining Contribution (years)
- · BS5837 Category Grading - refer to key - Section 1
- · First branch height (metres) / First canopy height (metres)
- · Protection Distance m2 Area (where applicable – BS5827: 2012)
- · Protection Distance Radius (where applicable – BS5827: 2012) - Root Protection Area (RPA)*

BS5837:2012 TREE SURVEY
SITE: Kings Road, Devonport, Plymouth | SURVEY DATE: 11th August 2025

Tree No	Species	Height (m)	DBH (mm)	Spread (m) N/E/S/W	Age	Structural Condition	Vitality	BS5837 (2012) Rating	Remaining Contribution (years)	Comments / Structural Condition	First branch height (m)	First canopy height (m)	Root Protection Area (RPA) m2	Root Protection Area (RPA) Radius (m)
T1	Common lime	15	670	5 6 5 6	M	F	G	B1	20+	Lean to North. Limited planting pit in pavement. Lifting tarmac to South. Retaining wall directly to North. Crown lifted and previously reduced, lapsed five years plus.	5	3	203.1	8.0
T2	Common lime	14	580	6 5 5 5	EM	P	G	C1	10+	Western buttress root abutts curbstone. Vehicle damage at 0.2 to 0.5 m height to North with open cavity which extends 200 mm within main stem and demonstrates limited reaction wood. Fungal fruiting bodies - *Kretzschmaria deusta* - within cavity and decay extends to eastern main stem where dead section of bark also exists. Previously crown lifted and reduced, lapsed five years plus. Low growth developing from regenerative trunk growth	5	2	152.2	7.0
T3	Scots pine	7	380 @0.3m	2 5 5 4	SM	F	G	C1	10+	Off site within raised ground 2 m height plus above pavement. Low Southwest crown extends within pavement area where lapsed managed/crown lifting has not been undertaken recently.	1	1	65.33	4.6
T4	Common lime	10	480	3 3 2 3	EM	F	F	C1	10+	Western buttress abutts curb structure. Curb stone to South raised where being lifted. Tree has been pollarded at 5 to 8 m height with diminished branch framework and columnar form.	5	2	104.24	5.8
T5	Common lime	11	420	3 2 3 3	EM	F	F	C1	10+	Western buttress abutts curb structure. Curb stone to south and north within 2 m of main stem raised being where being lifted. Tree has been pollarded at 5 to 8 m height with diminished branch framework and columnar form.	5	2.5	79.81	5.1
T6	Common lime	18	640	6 6 7 2	M	F	G	B1	20+	Western buttress root growing directly against curbstone, being displaced to north and south. Limited root flair to west, tarmac to base. Accentuated buttresses within pavement to southeast and previous root girdling evident. Lower North Crown growing within lighting. Previously crown reduced and lifted 7 to 14 m height, lapsed managed five years plus with low growth from regenerative trunk growth.	5	3	185.32	7.7
T7	Common lime	10	360	2 2 2 2	EM	F	F	C1	10+	Western buttress abutts curb structure. Curb stone to South And north within 2 m of main stem raised where being lifted. Tree has been pollarded at 5 to 8 m height with diminished branch framework and columnar form.	5	2.5	58.64	4.3
T8	Common lime	16	610	6 5 6 6	M	F	G	B1	20+	Western buttress has displayed has displaced curb stones within 2 m of main stem. Exposed root against the curbstone. Previously crown reduced lapsed five years plus generally balanced crown shape.	7	2	168.36	7.3
T9	Elm	22	1240	8 11 10 11	M	G	F	A1	40+	Mature and spreading form for species; tree appears disease resistant. Sited within soft landscape verge with accentuated buttresses to West. East buttress roots abut tarmac surface. Mature with limited pruning history. Limb has been removed at 5 m to north within past five years with reaction growth evident. Crown lifted over the highway and site entrance; low growth remains to West within subject site.	5	2	651.59	14.8
T10	Common lime	15	440	4 4 4 5	EM	F	G	B1	20+	Tree is columnar with eastern buttress growing over curbstone. Generally an even distribution of buttress roots. Low growth from regenerative trunk Growth only	5	2	87.59	5.3
T11	Common lime	15	400	4 5 3 4	EM	F	G	B1	20+	Tree is columnar; tree roots have raised tarmac to West and eastern buttress is on line of curbstone. Previously crown reduced, lapsed 3 to 4 years plus. Low grow from regenerative trunk Growth only	5	2	72.39	4.8

Tree No	Species	Height (m)	DBH (mm)	Spread (m) N/E/S/W	Age	Structural Condition	Vitality	BS5837 (2012) Rating	Remaining Contribution (years)	Comments / Structural Condition	First branch height (m)	First canopy height (m)	Root Protection Area (RPA) m2	Root Protection Area (RPA) Radius (m)
T12	Elm	7	Ms 160	2 3 1 2	Y	F	F	C1	10+	Suppressed understory tree with congestion congested low union	2	2	11.58	1.9
T13	Elm	8	M/s 200	2 3 2 3	Y	D	D	U	0	Tree is dead	/	/	/	/
T14	Elm	7	T/s 120	1 3 2 2	Y	F	F	C1	10+	Twin stemmed with developing form	2	2	6.52	1.4
T15	Common lime	16	600	5 7 5 5	EM	F	G	B1	20+	Located within soft landscape verge to west of Highway. Excessive climbers at base to 3 m height. Limited pruning history except being crown lifted. Good form.	5	3	162.9	7.2
T16	Elm	13	380	3 2 4 4	SM	F	F	C1	10+	Suppressed tree growing to west within soft landscape verge. No signs of Dutch Elm disease.	3	3	65.33	4.6
T17	Elm	13	360	5 4 5 3	SM	F	F	C1	10+	Tree is growing to north likely formed by previous existing tree. Back to upper crown appears unrelated to Dutch Elm disease which is not present.	3	3	58.64	4.3
T18	Common lime	16	890	9 8 10 8	M	F	P	C1	10+	Tree leans to east towards highway within soft landscape verge. Staining on main stem to 3 m height., Notably to east. Congested main union at 3 m height, broad spreading crown shape now reduced with diminished form and dieback / decline to mid and upper crown. Crown lifted over highway. Limited lifespan.	6	5	358.38	10.7
T19	Common lime	14	520	5 6 4 8	M	F	G	B1	20+	Limited planting pit location. Accentuated buttress to north, lifted tarmac to south east. Previously reduced, lapsed 5 years +. Crown lifted - low growth from epicormic trunk growth only	5	2	122.34	6.2
T20	Common lime	14	510	7 5 5 4	M	F	G	B1	20+	Absent east buttress. Pavers lifted to south. Infrastructure / railings to south. Previously pollard / reduced, lapsed 5 years +. Crown lifted - low growth from epicormic trunk growth only	5	2	117.68	6.1
G21	Sycamore	14	M/s 300	8 8 8 8	EM	F	G	B1	20+	Off site to highway - 5 no. stems and larger stem at lower topography beyond retainer and wall. Crown lifted over pavement	5	3	/	3.6
T22	London plane	18	870	9 9 7 9	EM	G	G	A1	40+	Sited within soft landscape verge. Mature form, crown lifted previously, lapsed with low growth from secondary branch growth only	7	2	342.26	10.4

Tree No	Species	Height (m)	DBH (mm)	Spread (m) N/E/S/W	Age	Structural Condition	Vitality	BS5837 (2012) Rating	Remaining Contribution (years)	Comments / Structural Condition	First branch height (m)	First canopy height (m)	Root Protection Area (RPA) m2	Root Protection Area (RPA) Radius (m)
T23	London plane	18	850	8 5 9 5	EM	G	G	A1	40+	Sited within soft landscape verge. Mature form, crown lifted previously, lapsed with low growth from secondary branch growth only. South crown growing within lighting	7	1	326.89	10.2
T24	London plane	18	600	5 7 7 5	EM	F	G	B1	20+	Sited within soft landscape verge. Maturing form, crown lifted previously, lapsed with low growth from secondary branch growth only. Dead central sub leader	7	2	162.9	7.2
T25	London plane	18	710	9 5 9 7	EM	F	G	B1	20+	Sited within soft landscape verge. Maturing form, crown lifted previously, lapsed with low growth from secondary branch growth only (crown lifted over highway)	8	2	228.08	8.5
T26	London plane	18	910	9 6 8 9	EM	G	G	A1	40+	Sited within soft landscape verge. Mature form Crown lifted to 8m over highway; lapsed low growth from secondary branch growth to north, west and south only (crown lifted over highway)	7	2	374.67	10.9

Appendix B

Project Zeus - Kings Road, Devonport, Plymouth (BS5837:2012)

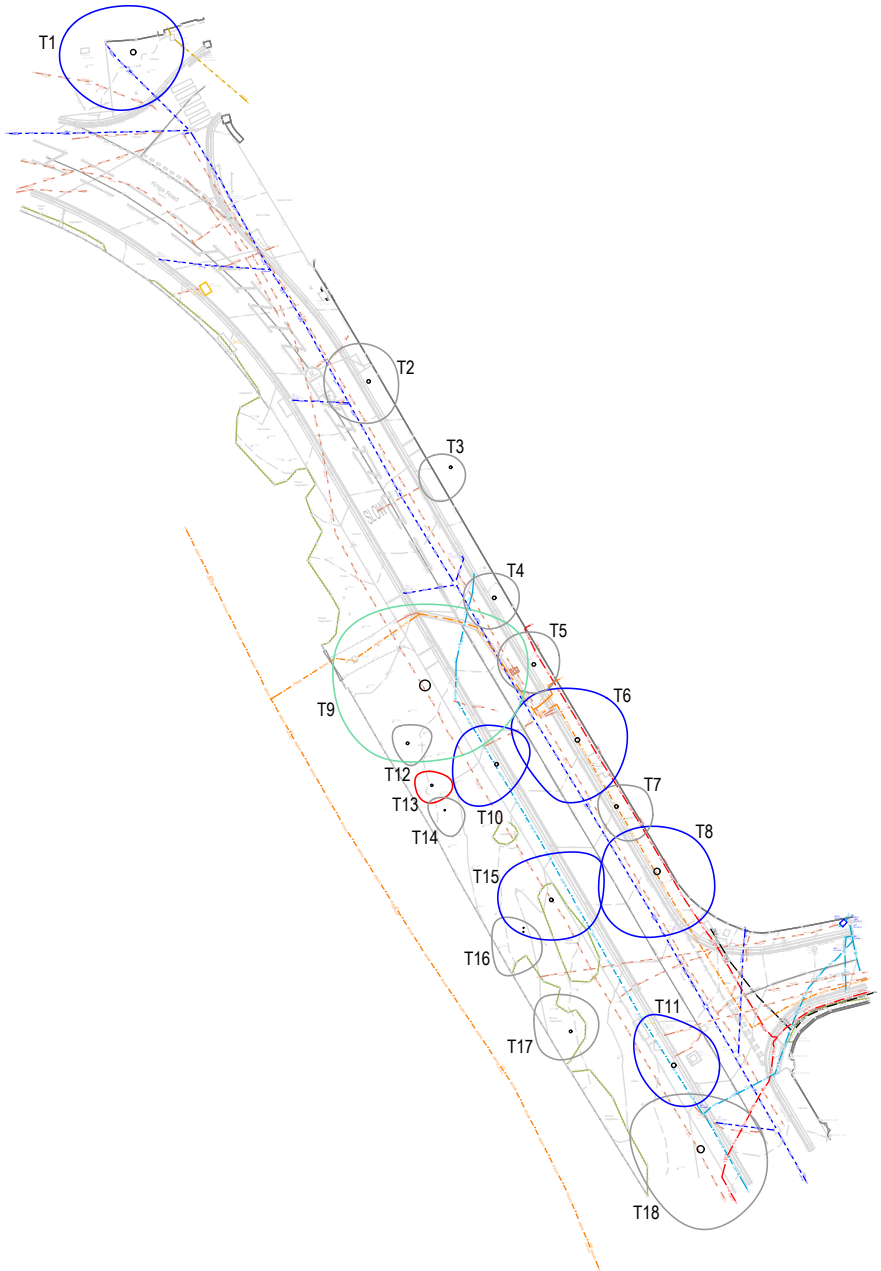
Existing Tree Survey (T001)
T001a - Kings Road North
T001b - Kings Road South

Tree Constraints Plan (T002)
T002a - Kings Road North
T002b - Kings Road South

Tree Protection Plan (T003)
T003a - Kings Road North
T003b - Kings Road South

Colour Key: BS5837: 2012 (see Section 3.6)

- Category A
- Category B
- Category C
- Category U



KEY

	CATEGORY A
	CATEGORY B
	CATEGORY C
	CATEGORY U

BS5837 (2012) Tree Survey Notes

1. In accordance with BS5837(2012) this drawing is a colour coded schedule and should not be read in black and white.

2. If received electronically it is the recipients responsibility to print this drawing to correct scale. Only written dimensions should be used where not printed to scale.

3. This drawing should be read in conjunction with all other relevant drawings and specifications.

4. Marcus Foster Arboricultural Design & Consultancy accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided.

5. Off site trees have been plotted based on site visit survey and locations are not based upon topographical survey.

NOTE: Tree survey locations based on previous undertaken topographical surveys for design issue and additional GIS mapping has not been undertaken for the purposes of this survey.

All off site trees where not plotted within topographic survey information are plotted using on site survey tools from within the site only.

Revisions

Rev.	Date		Checked
/	14.08.2025	ISSUED FOR INFORMATION	MF

SITE	Kings Road, Plymouth
CLIENT	Plymouth Argyle FC
DWG TITLE	Existing Tree Survey Plan
SCALE	1:600 @ A3
DATE	AUG 2025
JOB NO	AIA/MF/0140/25
DWG NO.	T001a

0 5 10 20 30 40 50m

N

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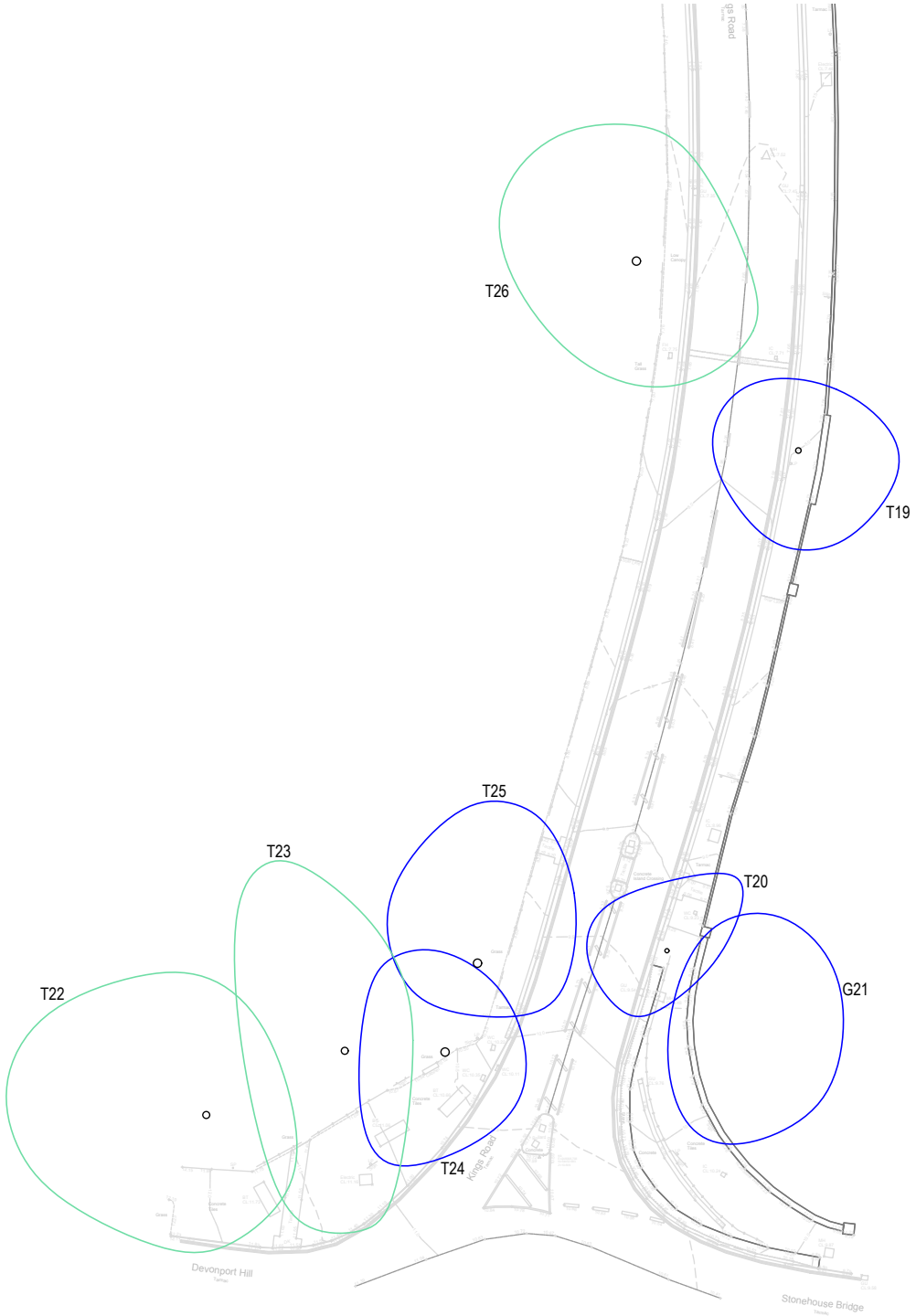
TREE CONSULTANCY



KEY

○	CATEGORY A
○	CATEGORY B
○	CATEGORY C
○	CATEGORY U

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Revisions

Rev.	Date		Checked
/	14.08.2025	ISSUED FOR INFORMATION	MF

SITE	Kings Road, Plymouth
CLIENT	Plymouth Argyle FC
DWG TITLE	Existing Tree Survey Plan
SCALE	1:350 @ A3
DATE	AUG 2025
JOB NO	AIA/MF/0140/25
DWG NO.	T001b

0 5 10 15 20m

N

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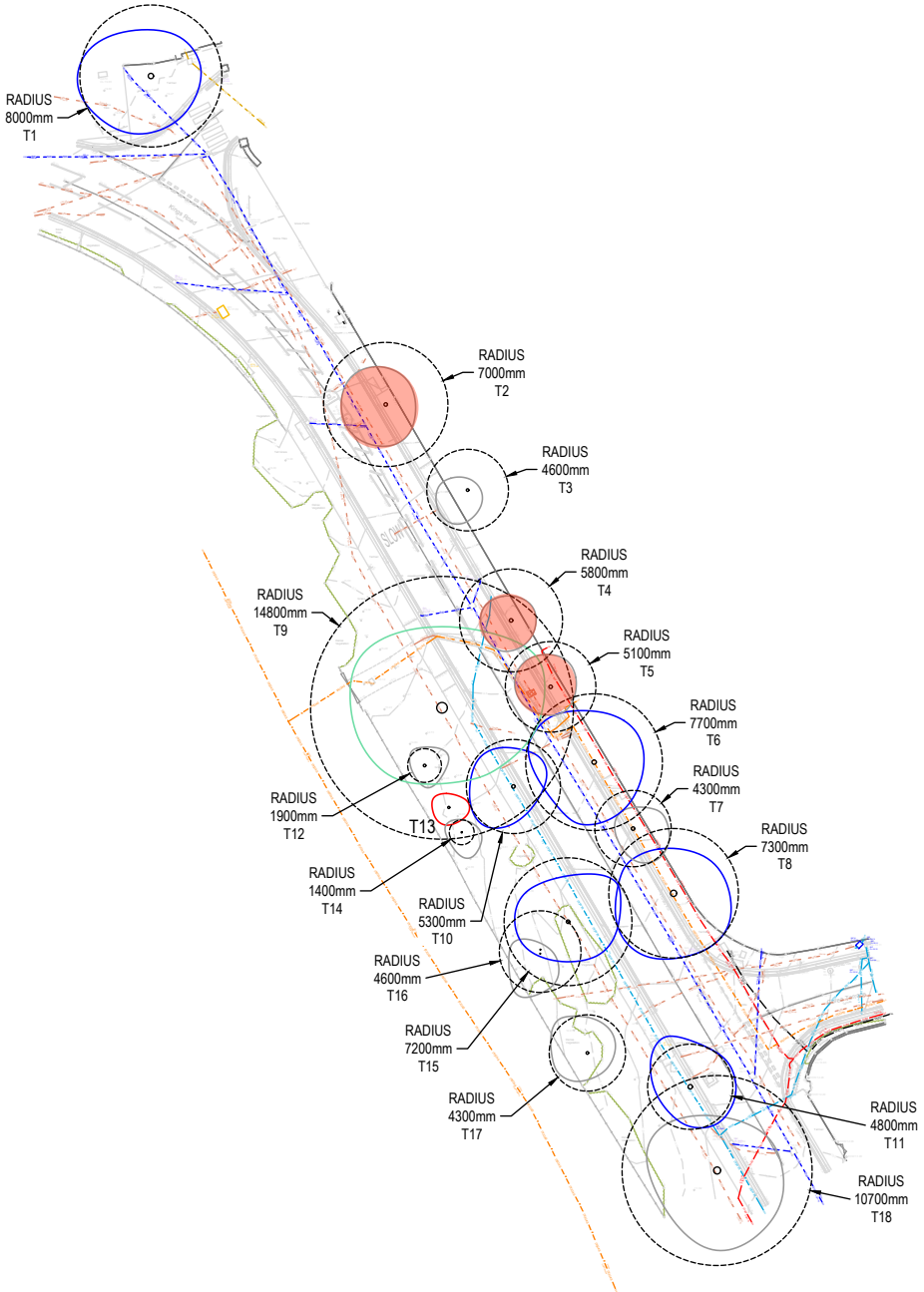

KEY

	CATEGORY A
	CATEGORY B
	CATEGORY C
	CATEGORY U
	TREES REMOVED
	RPA
	RPA INCURSION

BS5837 (2012) Tree Survey Notes

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Revisions

Rev.	Date		Checked
/	14.08.2025	ISSUED FOR INFORMATION	MF

0 5 10 20 30 40 50m

N

SITE Kings Road, Plymouth

CLIENT Plymouth Argyle FC

DWG TITLE Tree Constraints Plan

SCALE 1:600 @ A3

DATE AUG 2025

JOB NO AIA/MF/0140/25

DWG NO. T002a

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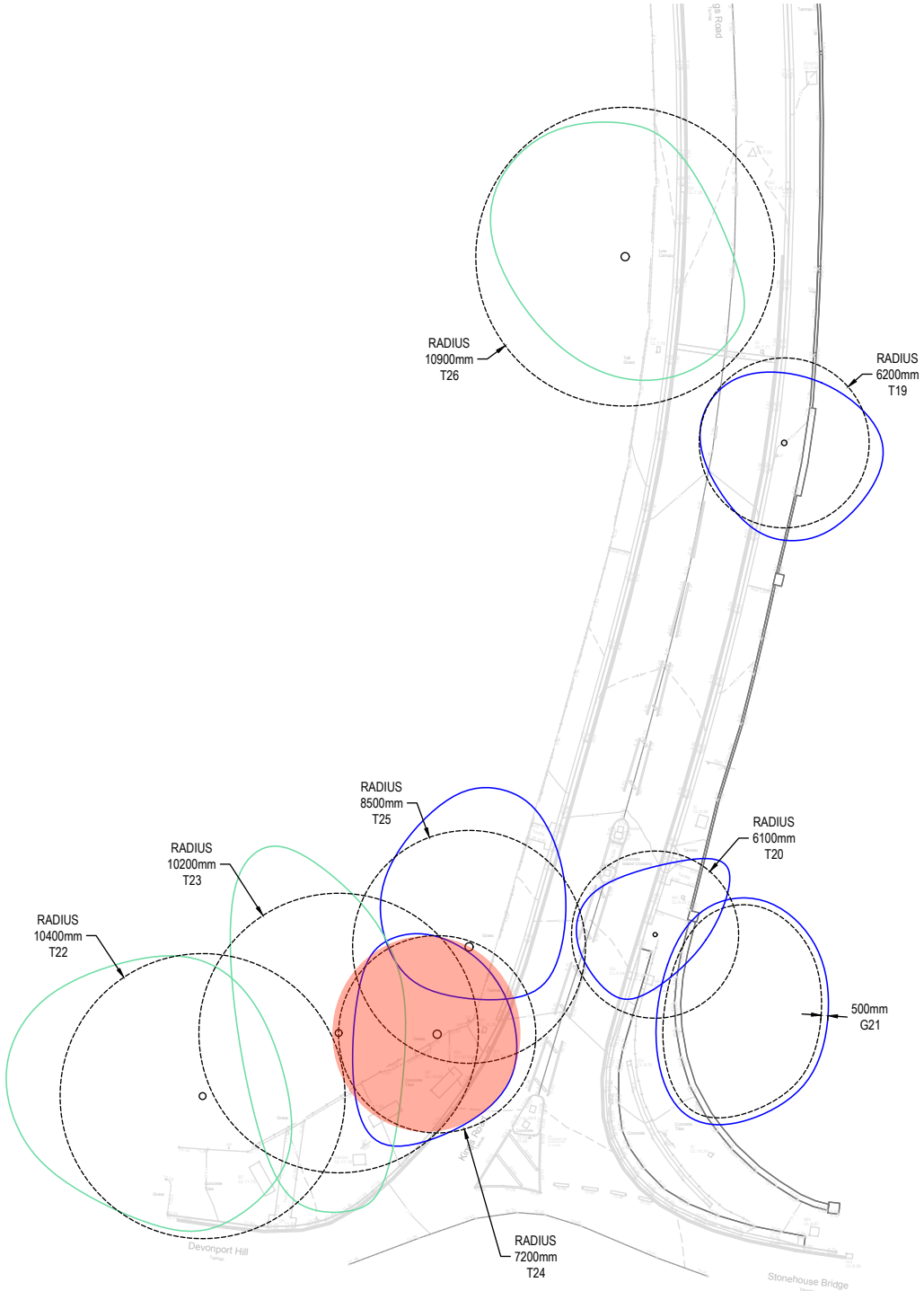

KEY

CATEGORY A
CATEGORY B
CATEGORY C
CATEGORY U
TREES REMOVED
RPA
RPA INCURSION

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Revisions

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/	14.08.2025	ISSUED FOR INFORMATION	MF

SITE	Kings Road, Plymouth
CLIENT	Plymouth Argyle FC
DWG TITLE	Tree Constraints Plan
SCALE	1:350 @ A3
DATE	AUG 2025
JOB NO	AIA/MF/0140/25
DWG NO.	T002b

0 5 10 15 20m

N

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Appendix C:
Tree Survey Photographs

Project Zeus - Kings Road, Devonport, Plymouth

Taken by M Foster_ August 2025

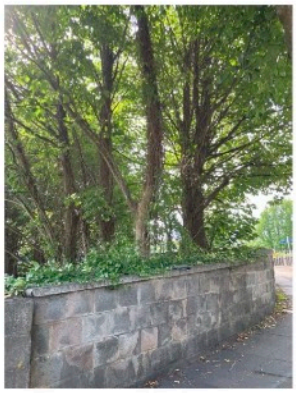
Kings Road North : T1-T18


T19 viewed to north


T26 viewed to north

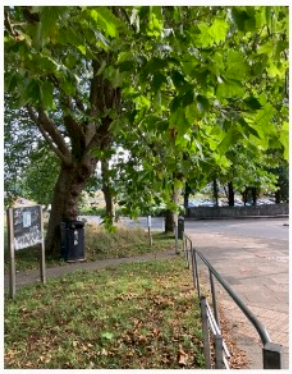

T25-T22 viewed to south


T20 & G21 viewed to east

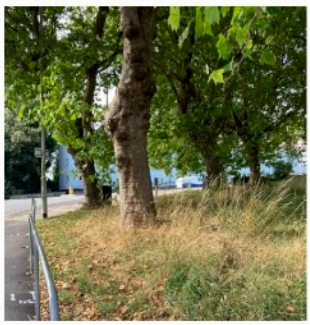

G21 viewed to south east

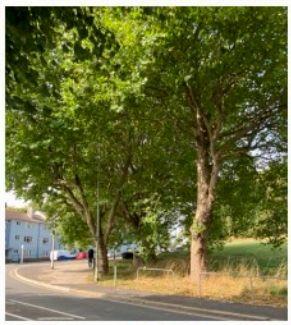

Base of T20 w/ buttress abuting railing


T25 viewed to south


T22-T25 viewed to south

T22-T24 viewed to west

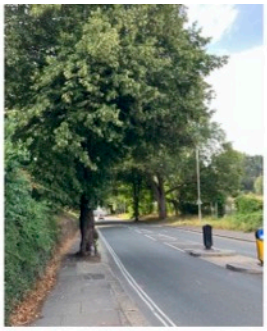

T22-T25 viewed to south


T22-T25 viewed to south


T26 viewed to north west

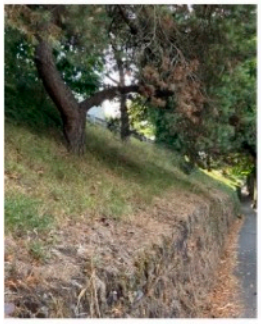
Kings Road South: T19-T26


T1 viewed to north

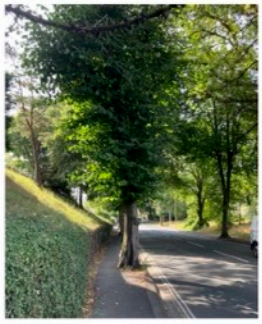

T2 viewed to south


Decay / vehicular damage to base of T2


T1-T3 viewed to north

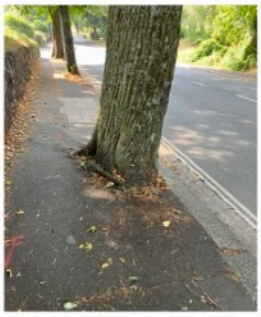

T3 viewed to south


T4-T9 viewed to south east


T4-T5 viewed to south


T4-T9 viewed to north

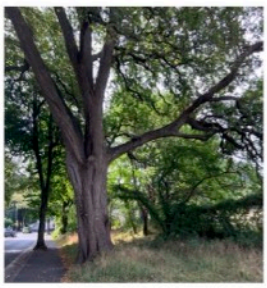

T5 viewed to north

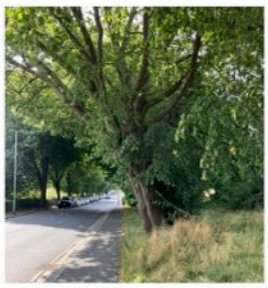

T6 viewed to south

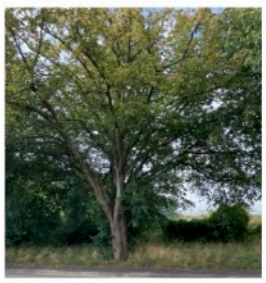

T7 viewed to north


T4 viewed to north


T9 viewed to east


T9-T10 viewed to south


T18 viewed to south


T18 viewed to west

Appendix D:
Tree Protection Notice

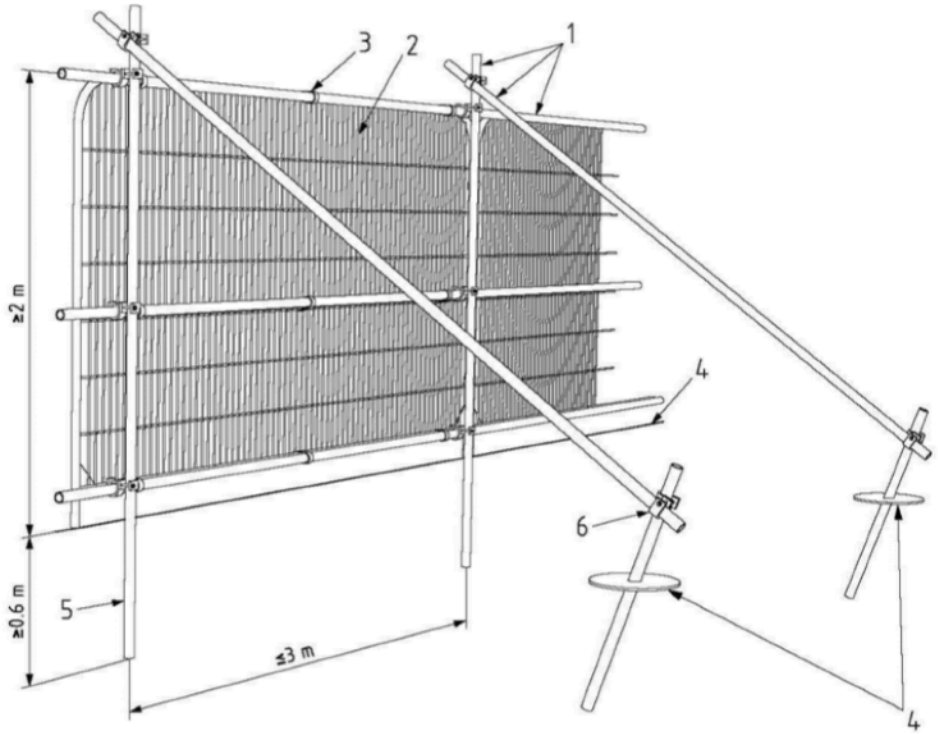
Generic Tree Protection Notice
(BS5837: 2012):

Notice to be clearly shown on site where fencing constructed
AT ALL TIMES

Appendix E
Tree Protection Fencing Specifications

Figure 2 BS5837:2012

BS5837:2012 - Figure 2 Fencing Specification



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

Basal Shuttering

BASAL SHUTTERING

Specification of Basal Shuttering Tree Protection

The fencing must fully enclose the main stem and initial buttress roots of the tree by being constructed as a self supporting structure to the following specifications:

Plywood Specification: 25mm thickness, external grade
Supporting Structure: 4" x 2" softwood timbers to form structure within shuttering
NOTE: - No ground supports permitted
Structural integrity of structure to be determined by building contractor and approved by supervising arboriculturilt
Tree Protection Fencing Notices: 5 x Notices

Example of Basal Shuttering Tree Protection

Appendix F: References

1. BS5837: British Standard: Trees in relation to construction - Recommendations, British Standard (2012)

2. Principles of Tree Hazard Assessment and Management, Lonsdale, D. (Department for Transport, Local Government and the Regions, 1999)

3. The Body Language of Trees, Mattheck, C. and Breloer, H. (HMSO, 1994)

4. Trees in Britain, Philips, R. (Pan Books, 1978).

5. Diagnosis of Ill Health in Trees, Strouts, R. and Winter, (TSO, 1994)

6. Fungi on Trees, Watson, G. & Green, T. (Arboricultural Association, 2011)

7. National Planning Policy Framework February 2019 Ministry of Housing, Communities and Local Government

8. Plymouth & South West Devon Local Plan 2014 - 2034 (Adopted 2019)

9. NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (Issue 2), (November 2007)

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END OF REPORT