Arboricultural Report

Planning and Development

Arboricultural Appraisal and Implications Assessment

Project Name and Address	**Queensmead, St Johns Wood Park, NW8**		
Prepared for	Kinleigh Folkard & Hayward	**Project Ref**	-
ACS Ref	ha/aiams1/queensmead	**Client**	KFH
Prepared by	Hal Appleyard Dip. Arb (RFS), F.Arbor. A. MICFor		
Report Date	31st July 2017		

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Hal Appleyard is an Arboricultural Association Registered Consultant and a Chartered Forester

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1.0 Introduction and Scope

Executive Summary

A mature London Plane tree stands within a small planting area to the front of an existing container used for estate office space. This building is to be removed and a new modular office is to replace it. The hard standing upon which the existing office building is seated will be retained. The new building will be supported by Jack Pads, which require no excavation. This report sets out the impact of the proposed works upon the tree and the tree protection measures, which are to be taken to ensure that the tree remains unharmed and preserved for the future. Subject to the implementation of the protection measures within this report, the proposals will have no material impact upon the tree.

1.1 A planning application for the replacement of a new concierge office has been submitted for consideration by the Local Planning Authority. The Council have requested the submission of an arboricultural report to set out the impacts of the tree proposals upon the tree and the measures by which the tree would be protected during construction.

1.2 The proposed construction is to be undertaken in the vicinity of a London Plane tree within a conservation area. The implications upon the tree and the methods for tree protection and preservation during construction are set out in this report and which includes a requisite a tree protection plan.

1.3 I have been appointed on behalf of the site owners as a competent and qualified arboricultural consultant to provide this report and to supervise any works that may have the potential to affect the protected and retained trees.

1.4 The tree has been inspected on 18th July 2017. The details are provided accordance with the guidance set out in BS 5837:2012 'Trees in relation to design, demolition and construction- Recommendations' (the BS) and an extract from that guidance is appended herewith. The root protection areas (RPAs) of the relevant trees are indicated upon the plans. Some RPAs may be modified from the standard circle by the presence of structures in the ground e.g. foundations, roads or kerbs.

2.0 The Site and Tree

2.1 The site comprises an existing free-standing container structure, which is being used for office space. It is located between ranks of garages upon the north and south sides. A brick boundary wall exists to the rear (east of the site). The tree stands in front of the existing office. Hard standing of small block paving and concrete exists within the space between the garages.

Fig. 1

2.2 The BS details of the trees are provided within the tree survey schedule at **Appendix 1** and their corresponding positions are shown on the tree protection plan included at **Appendix 2**.

2.3 There is the one tree of significance and which is growing normally from a small area between the garages. The area immediately around the tree's base is covered with loose slate. The tree has been recently pruned to reduce its height and spread but the typical and normal amount of regrowth has been produced.

Fig. 2 London Plane T1 with re-growth of young shoots bearing dense leaf cover.

2.4 The tree's root protection area (RPA) is based upon a radius measured from the trunk centre of 11.5m. All work therefore will be within this area.

Proposed Construction and associated works

2.5 The proposal involves a lorry-mounted crane removing the existing container by manoeuvring the building first into position and then pulling the building free from the tree and finally lifting the container away from the site and relocating it.

2.6 In order to protect the tree from mechanical impacts during construction, I have recommended that a trunk box be erected around the tree prior to commencement of any works and for that to be retained in position until the new office is seated into position.

2.7 The proposed building will similarly be supported by Jack pads which do not require excavations. The pads, which are adjustable in height, are located upon the ground existing hard surface. The pads are positioned upon a concrete block to spread load.

Fig. 3 Existing supports for the office building

2.8 Subject to the implementation of the tree protection measures from the outset of construction, the trees of importance to the landscape, will not be adversely affected by the proposals.

Table 1 Summary of Implications of Construction on Trees*

Tree Ident.*	Landscape Contribution	Implications/Impact	Mitigation measures	Impact Assessment**
T1 London Plane	Medium	Removal of existing and installation of a new office building within RPA	1. Install tree protection hoarding 2. Use Jack Pad footings (no excavations) 3. Monitor tree protection	Neutral

* Main trees selected for comment included above. Refer to previous notes on other trees.
** Negative – adverse impact upon trees and landscape; Neutral – no material impact (negative or positive); Positive – improvement (potential) to tree quality and landscape

3.0 Recommended Tree Protection Methods

3.1 In order to afford protection from general construction processes associated with the building of the new office, it will be necessary to erect robust tree protection barriers (normally OSB hoarding) in the position indicated on the Tree Protection Plan at **Appendix 2** (TPP1_QM). A recommended example of the type BS grade tree protection is included at **Appendix 3**.

3.2 Following erection of the tree protection hoarding, the existing office can be dismantled and removed from its current position. The existing hard standing is to be retained and which will afford protection to the roots beneath.

NOTE: THE APPOINTED ARBORICULTURAL SUPERVISOR IS TO BE CONSULTED BEFORE ANY WORK, EITHER SCHEDULED OR UNSCHEDULED, IS CONSIDERED WITHIN THE EXCLUSION ZONE OR ROOT PROTECTION AREAS OF ANY RETAINED TREE. FAILURE TO DO SO MAY LEAD TO ENFORCEMENT ACTION BY THE LPA.

3.3 In order to ensure that the tree protection measures are implemented effectively, a site monitoring exercise will be undertaken to confirm:

i) The efficacy and accuracy of the fencing and ground protection
ii) The root inspection and treatment exercise
iii) Maintenance of tree protection

An example of a site record (tree protection) is provided at **Appendix 4**. In this case, the form will be used as confirmation that all practical precautions have been undertaken in accordance with this method statement.

3.4 A copy of this method statement is to be retained on site for the duration of the build process together with a scaled, colour copy of the Tree Protection Plan.

3.5 The details pertaining to tree protection as set out in this method statement, specifically include:
i) erection of tree protection barriers/hoarding:
ii) lines of communication and incident reporting,
are to be explained to the Site Agent at the pre-commencement site meeting. It will be the responsibility of the Site Agent to ensure that all personnel working on site are aware to the tree protection measures processes. A copy of this method statement is to be retained on site for the duration of the build process together with a scaled, colour copy of the Tree Protection Plan.

3.6 Key times for site supervision include:

1. Completion of agreed/necessary tree works
2. Erection of tree protection barriers/hoarding
3. Works within RPAs of retained trees

3.7 Effective site monitoring will be undertaken from the outset of the project and at agreed intervals thereafter. The frequency of monitoring may well decrease following the proper installation of all tree protection measures. Below is a recommended programme of arboricultural supervision. (This programme may alter dependent upon site circumstances or by agreement.)

3.8 The process for recording the tree protection measures will involve:

i) Site Agent to contact Arboricultural Supervisor with a minimum of 5 days' notice of any site work commencement.

ii) Arboricultural Supervisor to monitor site to agree tree protection fencing
iii) When all tree protection is installed in accordance with the tree protection plan, the Arboricultural Supervisor is to arrange with LPA tree officer and relevant contractors **the pre-commencement site meeting** in order to agree the tree protection and subsequent works within RPAs of retained trees and importantly the lines of communication between the on-site contractors, the Arboricultural Supervisor and the LPA tree officer and incident reporting,
iv)Arboricultural Supervisor to record all site visits and distribute reports to LPA tree officer and contractors for their records
v)Subsequent to completion, Arboricultural Supervisor to sign-off and complete.
vi) Any incidents resulting in potential tree damage are to be reported in line with the 'Incident Reporting Flow Chart in **Appendix 4**.

Table 2 Preliminary site supervision schedule

Stage	Action	Arboricultural Supervisor (AS) (Required – Y/N)	Notes
1	Pre-commencement meeting*	Y	Site Agent(SA) and LPA tree officer, contractor to attend
2	Installation of tree protection	Y	PRIOR to ground/demolition works
3	Removal of the existing building	Y	SA to advise AS prior to commencement
4	Installation of the new building	Y	AS to monitor tree protection at agreed and suitable intervals
5	Remove tree protection	N	No tree protection to be removed without prior agreement with the AS
7	Completion	Y	Sign off

3.9 The frequency of tree protection monitoring depends upon the nature of the project. In this case, it will be appropriate for the SA to organise with the AS monitoring visits to be twice in the initial 28 days from commencement and thereafter once every 28 days for two months and then by agreement.

Table 4 Contact List (to be completed **PRIOR** to commencement)

Interested Party	Name	Company/LPA	Contact Number(s)	Comment/ Responsibilities
Site Agent	TBA			Day to day site management; co-ordination of timings; **contact with project Arboriculturist**
Main Contractor	TBA			Legal and administrative running of the project; finance; appointment of and liaison with all project consultants
Arb. Supervisor	TBA			Tree protection and management; dissemination of tree-related information
LPA Tree Officer	Nick Bell/ James Remmington	L B Camden	020 7974 4816	Tree protection and enforcement
Site Engineers	TBA			Technical advice and design
Architects	TBA			Design

TBA – to be advised

***Pre-commencement means i) before any works including tree felling or pruning and ii) before any ground works or demolition commences and upon completion of the initial installation of the tree protection, including ground protection.**

4.0 General site care (trees)

4.1 No fires will be lit on site.

4.2 No access will be permitted to within the fenced or otherwise protected areas (unless for site accommodation or Authorised agreement) at any stage during construction.

4.3 No materials, equipment or debris will be stored within the fenced areas unless agreed with the arboricultural supervisor.

4.4 Areas for mixing are to be located beyond RPAs of trees and contained to prevent leaching into the soil.

4.5 A copy of this report and the Tree Protection Plan is to remain on site at all times.

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Please note that all relevant planning approvals and approval to planning conditions must first have been issued by the relevant planning authority in order for this report to become effective. We strongly advise that you consult your planning advisors before implementing any recommendations set out in this report.

Hal Appleyard
Date:31st July 2017

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APPENDIX 1

ACS (Trees) Consulting
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Tree Survey Schedule

Site: Queensmead, NW8

Date: 18th July 2017

Surveyor:H. Appleyard
Ref:ts1/queensmead

Tree No.	English Name	Height	Crown Spread	Ground Clearance	Age Class	Stem Diameter	Protection Multiplier	Protection Radius	Growth Vitality	Structural Condition	Landscape Contribution	B.S. Cat	Sub Cat	Useful Life	Observations
T1	Plane, London	20	6 6 6 6	8/W6	Mature	960	12	11.5	Normal	Good	High	B	1,2	>40	Reduced in height and spread (apparently in around 2016) Grows within and small planting area; surrounded by hard standing and garages

Notes:

1. Height describes the approximate height of the tree in meters from ground level.
2. The Crown Spread refers to the crown radius in meters from the stem centre and is shown above on each of the four compass points (i.e. N, E, S, W) clockwise.
3. Ground Clearance is the height in meters of crown clearance above adjacent ground level together with the height and direction of the lowest branch
4. Stem Diameter is the diameter of the stem measured in millimetres at 1.5m from ground level. The diameter may be estimated (e), where access is restricted. An average (a) may be taken for tree groups. A full inspection is always recommended.
5. Protection Multiplier is 12 for single-stemmed trees; for multi-stemmed a cross-sectional area is calculated to derive the DBH, which in turn is multiplied by 12.
6. Protection Radius is a radial distance measured from the trunk centre and is used to calculate the BS RPA.
7. Growth Vitality - Normal growth, Moderate (below normal), Poor (sparse/weak), Dead (dead or dying tree).
8. Structural Condition - Good (no or only minor defects), Fair (remediable defects), Poor - Major defects present or suspected.
9. Landscape Contribution - High (prominent landscape feature), Medium (visible in landscape), Low (secluded/among other trees).
10. B.S. Cat. refers to British Standard 5837:2012 Table 1 category and refers to tree/group quality and value; 'A' - High, 'B' - Moderate, 'C' - Low, 'U' - Remove or very poor quality.
11. Sub Cat refers to the retention criteria values where 1 is Arboricultural, 2 is Landscape and 3 is Cultural including Conservation/ecological, historic and commemorative.
12. Useful Life is the tree's estimated remaining effective contribution in years.

Table 1 **Cascade chart for tree quality assessment**

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see **4.5.7**.*			See Table 2
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
Trees to be considered for retention				
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	See Table 2
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	See Table 2
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	See Table 2

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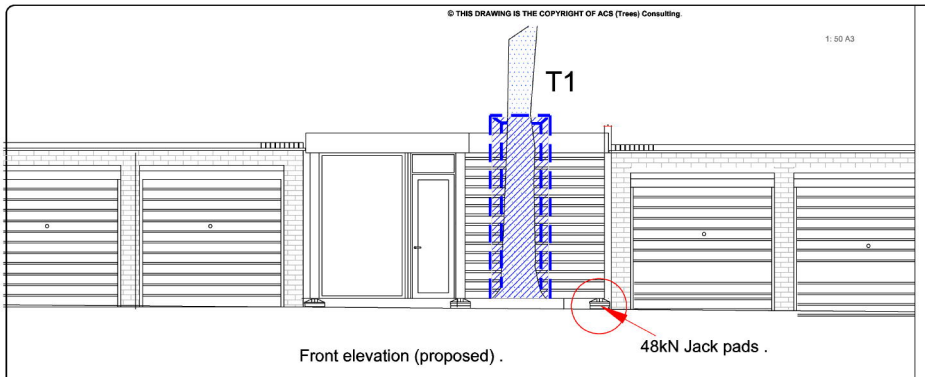
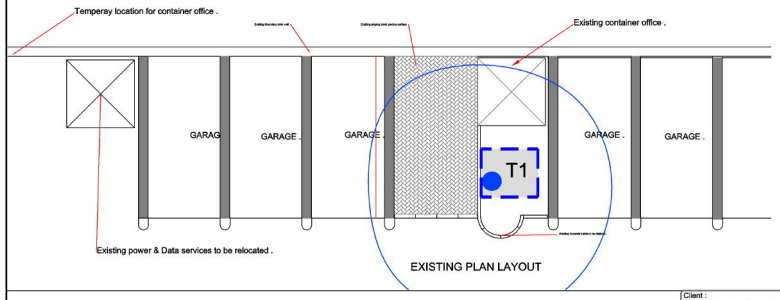
1: 50 A3



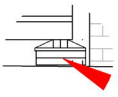
Front elevation (proposed) .



EXISTING PLAN LAYOUT

0 1 m 5 m 10 m

Scale: 1:100



Jack pad resting upon existing surface

1:20

ACS (Trees) Consulting LEGEND

Indicative

BS Root Protection Area, (RPA) shown uniform (above left) but site features such as roadways, retaining walls and foundations, may modify root patterns and therefore the RPA shape.

A grade trees

B grade trees

C grade trees

U grade trees

Position of tree/trunk protection. Exclusion zone for the duration of the project.

Tree Management Methods to be adopted on site.

1. Undertake pre-commencement site meeting to agree tree protection methods and timings.
2. Install all tree/trunk protection (see Appendix 3).
3. Remove/re-location existing container office.
4. Install new office upon Jack Pads.
5. Remove tree protection and carry out landscaping.

Client : Kinleigh Folkard & Hayward

Project :

Queensmead, St Johns Wood Road
NW8

Title :
Tree Protection Plan

Scale : 1: 100 A3 | Dwg No : TPP1_QM | Rev : -

Date : July 2017

Do not scale from this drawing. Any discrepancies are to be reported to ACS (Trees) Consulting.
This drawing is to be used when printed to scale & in colour.

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Example of Tree Protection Box Frame

Designed to provide immediate protection from impacts and damage to the trunk and root crown.

Specification:

Uprights x 4, min. 100 X 100 treated wood

Batons top, middle and base min. 25mm x 75mm

45° angled batons to and base for rigidity 25mm x 75mm

Fix 12mm OSB sheeting to framework

Affix 'Tree Protection' signage.

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Arboricultural Site Supervision

ACS CONSULTING

Site:	Project Site Address/Name
Inspected By:	Arboricultural Supervisor (AS)
Client:	Client
Site Agent:	Site Agent's Name (SA)
Date of Inspection:	24/02/2017
Time of Inspection:	8:15:00

Tree Protective Fencing

Tree protection in correct location

Comments/Action

Ground protection - temporary concrete and existing paving

Agreed Construction Exclusion Zone

No debris within construction exclusion zone

Comments/Action

Amendments to Documentation Required

No amendments required

Comments/Action

Remedial Works

Robust hoarding and temporary concrete ground protection

Tree protection Hoarding and ground protection over sharp sand.

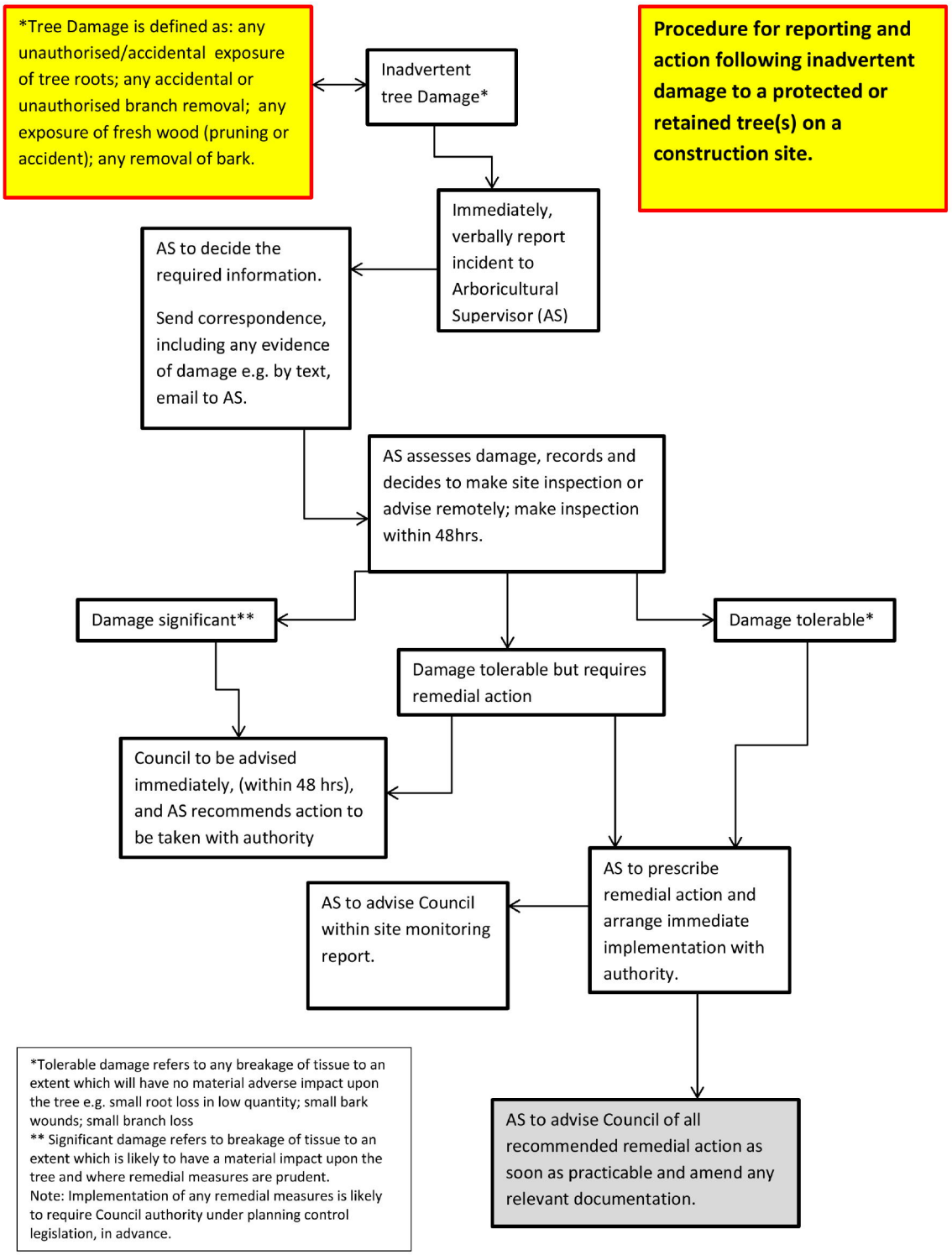
General Comments

1. Tree protection in position and effective
2. Position of site huts used as tree protection for T7 and T10
3. Temporary concrete used for ground protection for T10
4. Hoarding style tree and ground protection effective and in position

Next Inspection April 2017

Procedure for reporting and action following inadvertent damage to a protected or retained tree(s) on a construction site.

*Tree Damage is defined as: any unauthorised/accidental exposure of tree roots; any accidental or unauthorised branch removal; any exposure of fresh wood (pruning or accident); any removal of bark.



*Tolerable damage refers to any breakage of tissue to an extent which will have no material adverse impact upon the tree e.g. small root loss in low quantity; small bark wounds; small branch loss
** Significant damage refers to breakage of tissue to an extent which is likely to have a material impact upon the tree and where remedial measures are prudent.
Note: Implementation of any remedial measures is likely to require Council authority under planning control legislation, in advance.

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