Detailed Tree Safety Inspection Report For:

St Raphael's Convent

Court Drive

Hillingdon

UB10 0BW

Client:	MCO Group Ltd
Job Ref.:	24 25324 St Raphaels Convent DI T1
Survey Date:	25/10/2024
Report Date:	08/11/2024
Checked By:	AA

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Document Details:

Site address:	St Raphael's Convent, Court Drive, Hillingdon, UB10 0BW
Ref:	24 25324 St Raphaels Convent DI T1
Site visit undertaken by:	Joseph Blackwell ND Arb
Date of site survey:	25/10/2024
Report prepared by:	Joseph Blackwell ND Arb

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1 Instruction

1.1 GraftinGardeners Ltd was instructed by MCO Group Ltd to undertake a detailed tree safety inspection of tree T1 at St Raphael's Convent, Court Drive, Hillingdon, UB10 0BW.

1.2 The inspection was undertaken as a matter of routine maintenance enabling our client to fulfil their duty of care as defined by both civil law and the Occupiers' Liability Acts of 1957 & 1984.

1.3 Tree T1 was inspected to assess its general condition and to identify the level of risk it potentially may pose to persons and property within its target area (falling distance).

1.4 Remedial work will be recommended where levels of risk are deemed unacceptably high, or general management advice provided where appropriate.

2 Abbreviations

2.1 The following abbreviations will be used throughout this report:

BS 3998	British Standard - 'BS 3998:2010 Tree Work - Recommendations.'
LPA	Local Planning Authority
VTA	Visual Tree Assessment
TLP	Tree Location Plan
TPO	Tree Preservation Order
CA	Conservation Area

3 The Site

3.1 St Raphael's Convent (the 'site') is occupied by a two-storey property and two detached garages. The main building is set to the northwest of the site with one garage set to the northwest corner, and the other nearer the southwest corner.

3.2 The property has two gated entrances, both fronting onto Court Drive and an access road leading to the main property, garages and parking areas.

3.3 Remaining areas comprise lawn and landscaped gardens.

3.4 Reference to the BGS Geology Viewer (BETA) indicates that the underlying geology of the site forms part of the London Clay Formation - clay, silt and sand. Superficial deposits are recorded as Black Park Gravel Member - sand and gravel.

3.5 For the purpose of this report the area within falling distance of the T1 has been classified as having a high-risk target rating. This assessment is based upon the surveyor's observations at the time of the site visit, with consideration given to occupancy/frequency levels, and/or the estimated material value of the target (where relevant).

3.6 An aerial photograph of the site is included below:

Aerial image of site (© Google Maps 2024)

4 The Subject Tree

Tree Ref: T1	Details:
Common name:	Deodar Cedar
Botanical name:	*Cedrus deodara*
Age Class:	Mature
Height (m):	17
Physiological condition:	Fair
DBH (mm):	1275

Table 1: Tree Details

5 Defects/Observations

Tree Part:	Apparent significant defects/Observations:
Roots/Rooting Area:	No apparent significant defects to roots/rooting area. Some surface roots visible, partially restricted rooting environment due to hard standing.
Stem Base:	No apparent significant defects to stem base. Moderate swelling noted indicating potential decay.
Stem:	No apparent significant defects to stem. Old pruning wounds noted, partially occluded 'flush-cut' to west of stem at 2m. Further swelling noted as above indicating potential decay.
Crown Break/Primary Scaffolds:	No apparent significant defects to crown break/primary scaffolds. Storm damage, tear wounds from previous branch failure, competing apical stems on lateral boughs, branch end cavities with decay, overweighted lower boughs.
Secondary Scaffolds:	No apparent significant defects to secondary scaffolds. Storm damage, tear wounds from previous branch failure. Low branches over road and site.
Foliage/Outer Crown:	No apparent significant defects/observations to foliage/outer crown.

Table 2: Tree Defects/Observations

6 Definitions

In the context of tree management services, the following meanings apply:

6.1 Informal Observation

6.1.1 The informal observation of tree T1 should be undertaken by persons with good local knowledge and familiarity with the tree and its surroundings. Such people should be aware of potentially dangerous situations that may arise from unsafe trees and should be able to recognise gross defects or abnormalities should they occur.

6.1.2 Any person tasked with this responsibility should ensure that they remain aware of each tree's health and condition as they conduct their other daily tasks. They should identify any structural weakness or actual failure that poses an imminent threat to public safety and should report it or act upon it as required.

6.1.3 Any identified or reported tree-related safety problems arising from informal observations made by members of staff or the general public should be acted upon without delay. Initially, this may take the form of a formal inspection by a competent member of staff or an external inspector. This may then result in no further action being required, or in tree surgery, felling or implementing measures to manage the area within falling distance of the tree.

6.2 Formal Inspection

6.2.1 A formal inspection is undertaken with the specific purpose of performing an inspection that is not incidental to other activities. Formal inspections should be undertaken by persons with a general knowledge of trees and the ability to recognise abnormal features or serious signs of ill-health, should they occur.

6.2.2 Inspectors need the capacity to assess the area which may be at risk from a falling tree or tree part and must have the powers to request a detailed inspection should they believe that one is required.

6.2.3 A formal inspection will include a health and condition assessment and will comprise of ground-based visual checks. Whilst a formal inspection may not identify hidden features such as fungal fruiting bodies or internal decay it will be sufficient to recognise clear and present signs of immediate instability such as uprooting or other major structural failure.

6.3 Detailed Inspection

6.3.1 A detailed inspection will occur in two distinct stages. The first stage will comprise of a systematic and diagnostic process of visual inspection by a competent person from ground level using binoculars, mallet as required, with the aim of gaining an in-depth understanding of a tree's structural condition.

6.3.2 If deemed necessary by the inspector, and agreed by the client, then a second stage of more detailed investigations may be undertaken including soil and root condition assessments, aerial inspections of the upper trunk and crown or internal investigations using specialist diagnostic tools.

6.3.3 A detailed investigation will provide the information necessary in order to advise on a recommended reinspection interval and provide the detailed management recommendations necessary to adequately control any identifiable risk.

6.3.4 A detailed inspection must only be carried out by a competent and experienced person who is both qualified and insured to carry out this type of work. They should be familiar with a wide range of trees, their defects and decay fungi and should be capable of both assessing risk and recommending cost effective methods of mitigation.

7 Methodology

7.1 T1 was inspected in accordance with the Visual Tree Assessment (VTA) method, as described by Mattheck and Breloer (The body language of trees, Research for Amenity Trees, 2001).

7.2 No tissue samples were taken at the time of inspection and any internal investigation limited to that outlined below:

7.3 As part of the detailed inspection, the PiCUS Sonic Tomograph was employed to assess potential decay within the trees stem/lower stem.

7.4 The opinions, statements and recommendations provided within this detailed inspection report, do not take account of the working safety and/or structural integrity of any engineered structure(s), that may be attached to, or supported by the subject tree(s). Engineered structures may include wooden platforms, coach bolted steel rigging, lighting features and other services etc.

7.5 No assessment of the potential stresses & forces being applied and/or exerted by such features is offered.

7.6 In view of the above, GraftinGardeners Ltd accepts no liability should any legal issue arise in connection with such factors.

7.7 T1 was inspected only from land within the client's ownership or from public land. Where restricted access prevented a full inspection then this will be recorded along with any future access and reinspection requirements.

8 Protection Status

8.1 Tree Preservation Orders and Conservation Areas (Town and Country Planning Act 1990)

8.1.1 Our basic online searches suggest there to be TPO's pertaining to trees/vegetation on or adjacent to the site, the searches further suggest that the site is not located within a CA.

8.1.2 Further to the above, it must be stated that searches undertaken by GraftinGardeners Ltd with specific regard to the statutory protection status of trees are preliminary in nature and collated with information obtained from the respective LPA website. Such information is only a guide as LPA websites and the information provided within them are subject to continual change.

8.1.3 It is therefore strongly advised that information pertaining to the statutory protection status of a tree or trees, on and/or adjacent to development sites be fully investigated by contacting the respective LPA directly. Should a TPO or CA status be confirmed then full details should be obtained in writing from the respective LPA.

8.1.4 Where trees are protected by a TPO, or located within a CA, formal consent of the LPA should be obtained before any works are carried out. Failure to obtain the necessary consent is an offence and if convicted in a magistrates' court you could be fined up to £20,000 per offence. In serious cases, a person may be committed for trial in the Crown Court and, if convicted, is liable to an unlimited fine.

8.1.5 There are however some instances where the formal consent of the LPA is not required before carrying out works to protected trees. These 'exempt' works include urgent works to trees that are dead, or dangerous.

8.1.6 Although exempt, owners must still notify the LPA of your intention to carry out such works. Except in an emergency, you are advised to give at least five days' notice before carrying out any pruning or felling and to record both the works completed and the reason(s) for those works. It is in your interests to do this as you may be prosecuted should the LPA think that you have carried out unauthorised work.

8.1.7 Except in the case of a woodland TPO, there is an automatic duty to replace any tree that is removed because it is dead or dangerous. The LPA has the powers to waive this duty, and you are advised to contact them should you wish to avoid replanting.

8.2 Forestry Act 1967, and Felling Licences

8.2.1 Tree felling is a legally controlled activity.

8.2.2 Unless exempt you will normally need permission from the Forestry Commission to fell growing trees and they will normally provide this by issuing a felling licence.

8.2.3 The licence will allow you to fell identified trees and woodland legally.

8.2.4 Exemptions to the requirement for a felling licence are listed below:

- In any calendar quarter you may fell up to 5 cubic metres (m3) of growing trees on your property without a felling licence, as long as no more than 2m3 are sold.
- Tree pruning.
- If less than 8cm diameter when measured at 1.3m from ground level, or <10cm diameter for thinning to improve the growth of adjacent trees, or <15cm for understorey trees and coppiced trees.
- Fruit trees.
- Gardens, orchards, churchyards, public open spaces and trees growing within the inner London boroughs.
- Dangerous and nuisance trees where there is a demonstrable immediate serious risk of harm.
- Tree health where the felling of trees is necessary to prevent the spread of a quarantine pest or disease in accordance with a Statutory Plant Heath Notice (SPHN), as issued by the Forestry Commission under the Plant Health (Forestry) Order 2005.
- Where felling is permitted to implement an approved planning permission. Where felling is undertaken directly by a statutory undertaker.

9 Discussion

9.1 T1 Deodar Cedar was initially inspected on the 5th of October 2024 as part of a routine tree safety survey. Swelling was noted to the stem base/lower stem and further detailed inspection using decay detection apparatus recommended.

9.2 At that time of our detailed inspection, there were no obvious or apparent signs of ill health about the trees crown, and no further significant defects were recorded other than those originally outlined.

9.3 Decay detection, undertaken using the PiCUS Sonic Tomograph at 0.7m, identified limited amounts of incipient decay within the stem base/lower stem. Given the test result, further testing was considered unnecessary at this time.

9.4 No fungi were noted on the stem, or around the stem base at the time of inspection. The results, although mostly positive, suggest the potential presence of an active pathogenic decay fungus.

9.5 We advise, based on recent experience, that certain species of fungi appear to be fruiting later this year, therefore surveying/monitoring in the autumn months is recommended for future tree reinspection.

9.6 Recommendations for tree work and/or monitoring are aimed at lowering the current tree risk posed and can be found in section 10 Recommendations and Reasons for Works.

10 Recommendations and Reasons for Works

The reason for works will be required by the Local Authority where a tree need permission to be pruned or felled.

Specification:	Reason for Works:
Climbing inspection of all major stem/branch unions, cavities and wounds with decay, remove dead or diseased wood, remove competing upright apical stems on lateral boughs, thin crown by 15-20% to reduce loading to primary scaffold, crown lift to 6m over road and 4m over site Monitor in the autumn months on annual survey for potential fungal activity	To improve site safety and minimise the risk of structural failure and subsequent risk to persons and property

Table 3: Recommended Tree Works

10.1 Tree Works

10.1.1 Tree works shall be carried out in accordance with BS3998:2010 Recommendations for tree work (British Standards Institute, 2010), industry best practice and in line with any works already agreed with the relevant Local Authority.

10.1.2 If during the course of these operations the need for other work becomes apparent, then the advice of the project arboriculturist will be sought. No works other than those detailed within the report will be carried out without the prior written consent of the relevant Local Authority.

10.1.3 Attention is paid to the common law right to prune overhanging trees back to boundaries. Should this be required then all efforts will be made to contact the tree owner prior to the commencement of works and all work will be undertaken without access onto third party land.

10.1.4 The statutory protection afforded by the Wildlife and Countryside Act 1981 (Amended) and Countryside and Rights of Way Act 2000 (Amended) must also be adhered to. Where there is evidence that bats, nesting birds, or other protected species are present then specialist advice will be obtained prior to the commencement of work.

10.1.5 Further advice on bats is available from the Bat Conservation Trust (www.bats.org.uk) and on birds from the Royal Society for the Protection of Birds (www.rspb.org.uk).

10.1.6 All operations shall be carefully carried out to avoid damage to the trees being treated or neighbouring trees. No trees to be retained shall be used for anchorage or winching purposes.

10.2 Appointing a Contractor

10.2.1 When appointing a contractor, it is important to make them aware that a schedule of works already exists against which a quotation is sought.

10.2.2 Poorly executed tree works can result in injury to people, damage to property and harm to your trees. It is also possible that you may become liable should anything affect someone else or their property. You are therefore advised to ensure that any appointed contractor has Employers Liability Insurance (£5,000,000 minimum), Public Liability Insurance (£1,000,000 minimum) and holds NPTC certificates for any operation which they are required to undertake.

11 Reinspection Period

11.1 Given the limited decay identified in the stem/lower stem, T1 should be reinspected annually as part of the recommended and ongoing tree survey reinspection schedule, subject to the terms outlined in this report.

11.2 Trees are living organisms that can be subject to rapid physiological and structural change caused by many variable factors, such as weather, pests, disease, or alterations to their surroundings. We therefore recommend that all trees be subject to a regular programme of inspection and monitoring.

11.3 Interim inspections should also be undertaken and may be carried out by the owner, site manager or other persons involved with the management of the site. These interim inspections should consist of a combination of informal observations and formal inspections. Formal inspections should be undertaken following any significant weather event or after any change in the area surrounding any tree.

11.4 These interim inspections should seek to identify any apparent changes in their health or appearance of the tree with any observations referred to a qualified arboriculturist for further assessment should this be required.

12 Caveats

12.1 Inherent in tree inspection is assessment of the risk associated with trees close to people and their property. Most human activities involve a degree of risk, such risks being commonly accepted if the associated benefits are perceived to be commensurate.

12.2 Risks associated with trees tend to increase with the age of the trees concerned, but so do many of the benefits. It will be appreciated, and deemed to be accepted by the client, that the formulation of recommendations for all management of trees will be guided by a cost/benefit balance.

12.3 Lonsdale writes in 'Principles of Tree Hazard Assessment and Management' that… 'The (risk) value of 1 in 10,000 is generally considered as acceptable when an identifiable risk is imposed upon people in the "wider interest" and is perhaps appropriate as far as risks and benefits from trees are concerned.' Ultimately, the landowner/site manager will determine their own thresholds and exposure.

13 Validity Period

13.1 The discussion and recommendations in this report are valid for a period of 1 year from the date of this report. Trees are living organisms subject to change and this validity period may be reduced should changes occur to the tree or within the site or the surrounding area.

13.2 Therefore, the validity period of 1 year may be reduced, should significant changes in condition occur to the subject(s) of this report, or surrounding area. All recommendations are given in the context of the current site usage at the time of the site inspection. Significant changes to the site, or area surrounding the subject(s) of this report (i.e. development, demolition/construction) will invalidate the recommendations and potentially any conclusions drawn from the inspection.

13.3 In general, any significant weather events and/or environmental changes that may take place in proximity to the subject(s) of this report would dictate further reinspection.

14 References

Anon., 1981. Wildlife and Countryside Act (Amended). s.l.:HMSO.

Anon., 2000. Countryside and Rights of Way Act 2000 (Amended). s.l.:HMSO.

British Standards Institute, 2010. Tree work - Recommendations. London: BSI.

British Standards Institute, 2012. Trees in relation to design, demolition and construction - Recommendations. London: BSI Standards Ltd.

National House Building Council, 2010. NHBC Standards Chapter 4.2. s.l.:NHBC.

Roberts, J., Jackson, N. & Smith, M., 2006. Tree Roots in the Built Environment. Norwich: The Stationary Office.

The National Joint Utilities Group, 2007. Volume 4 - NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees, s.l.: NJUG Publications.

K. Weber, C. M. (2003). Manual of Wood Decays in Trees. Romsey: AA.

Lonsdale, D. D. (1999). *Principles of Tree Hazard Asessment and Management.* London: TSO.

Matheny, N. P., & Clark, J. R. (1994). *A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas* (2nd Edition ed.). Champaign: International Society of Arboriculture.

Mattheck, C., & Breloer, H. (2001). *The Body Language of Trees - A handbook for failure analysis.* London: TSO.

Winter, R. S. (2000). *Diagnosis of ill-health in trees* (2nd ed.). Norwich: TSO

Appendices

Appendix 1 Site Photographs

Photograph 1: T1, viewed from the northwest

Photograph 2: T1, viewed from the northwest

Photograph 3: T1, viewed from the northwest

Photograph 4: T1, viewed from the northwest

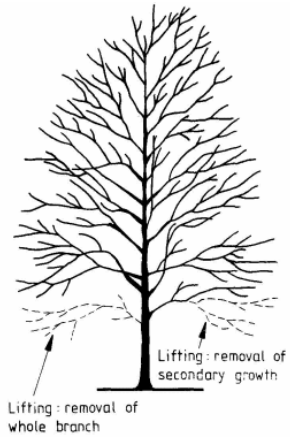
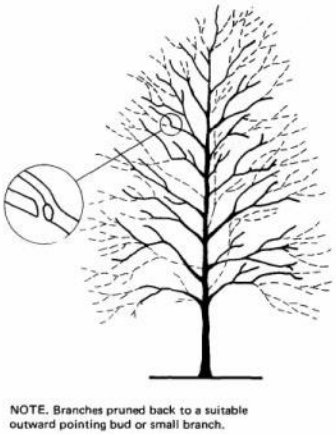
Photograph 5: T1, viewed from the northwest

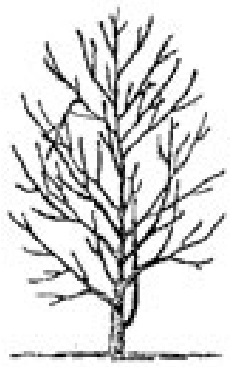
Photograph 6: T1, viewed from the northwest

Photograph 7: T1, viewed from the west

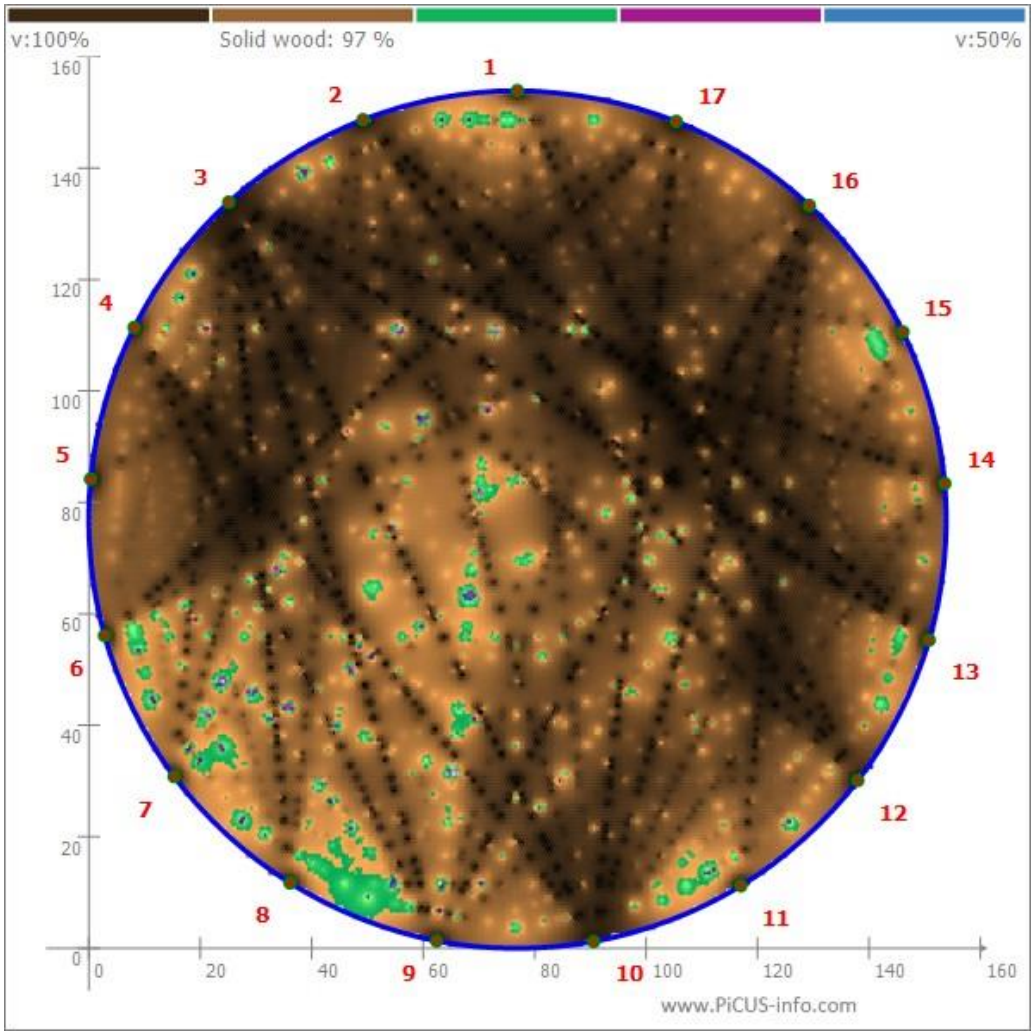
Photograph 8: T1, viewed from the west

Appendix 2 Glossary of Terms and Abbreviations

Management Prescription	Explanation
Bracing	The installation of cables, ropes and/or belts to reduce the probability that weakened part of the tree will fail because of excess movement.
Coppice Tree	The cutting down of the stem or stems (usually of a previously coppiced tree or species that is commonly coppiced) to within 300mm of ground level to promote the regrowth of fresh shoots.
Crown Clean	Removal of unsightly features within the tree; for example, climbing plants, dead or dying and damaged branches, accumulations of leaf litter and rubbish.
Crown Lift	Removal of the lowest branches or parts of these branches which extend below a particular height, usually necessitate access. Removal of branches greater in diameter than one third the diameter of the stem from which they are removed should be avoided. 
Crown Reduce	A crown reduction is a very common arboricultural operation performed to reduce the height and/or spread of a tree by selectively cutting back smaller branches. This can be done to help prevent damage to the tree caused by 'wind-loading', but more commonly is performed when a tree is outgrowing its confines, or for purely cosmetic reasons. Crown reductions are specified as a reduction of total leaf area. Reductions of greater than 30% should be avoided except in exceptional circumstances as this can be detrimental to the health of the tree.  Also, the branch removed should not leave a wound diameter greater than a ⅓ of the diameter of the branch from which it has been cut, at the pruning point.

Management Prescription	Explanation
Crown Thin	Crown thinning involves the removal of some of the branches and leaf area of the tree with the intention of creating an even and balanced tree structure. This may include the removal of damaged, crossing and crowded branches. As with reductions, removal of more than 30% of the leaf area should be avoided and the branch removed should not leave a wound diameter greater than a ⅓ of the diameter of the branch from which it has been cut.  Before  Crown Thinning
Epicormic Growth	Epicormic growth is the proliferation of young shoots around the stem and branches from adventitious buds present beneath the bark.
Fell to ground level	Complete removal of the tree leaving a stump at ground level.
Remove Hanger	Removal of a partially or completely loose branch which presents a hazard, especially in high wind.
Monolith	Removal of all side branches and treetop leaving a standing trunk at a given height which may then be left to decay and fall apart.
Pollard to original points	Pollarding involves the removal of the upper part of the stem and ends of the branches to create a robust framework from which new shots can grow. Pollarding should only be carried out on a young tree as the same work on an older tree often causes extensive decay. Pollarding to original points is to make a new series of cuts at the same position as the cuts of the previous cycle.
Tomograph/Resistograph and further detailed inspection	The second phase of a detailed inspection. This may include, but is not limited to, decay mapping, root and soil assessments and climbing inspections. These may be required when specific defects are identified whose full significance cannot be determined by visual assessment, probing, or tapping alone.

Appendix 3 PiCUS Sonic Tomograph Results (T1 Deodar Cedar)



Appendix 4 Tree Location Plan