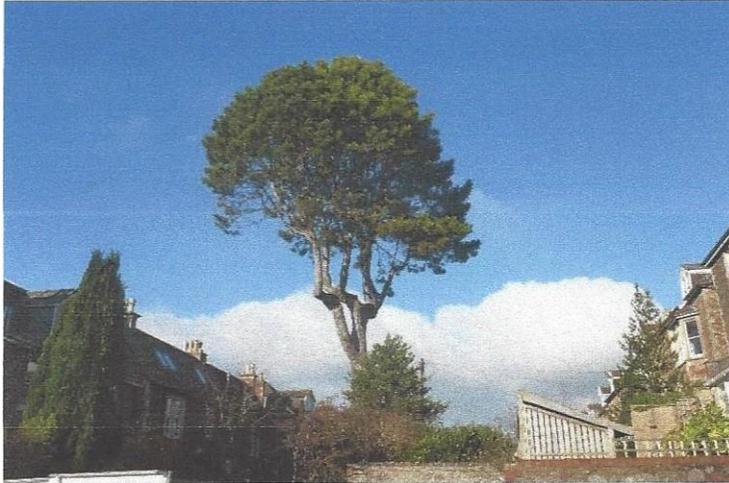


Tree Condition Assessment of Black Pine *Pinus nigra*



32 St John's Road
Clifton
Bristol
BS8 2HG

On behalf of
XXXXX

Prepared by
Jim Walker TechArborA
All Tree Services Ltd

Survey date

19th January 2017

1.0 Introduction

1.1 I was instructed by XXXXX to carry out an inspection of a Black Pine located in the garden of 32 St John's Road, Clifton, Bristol, BS8 2HG.

All Tree Services Ltd, Cutlers Green, Chewton Mendip, Somerset, BA34NE

Tel: 01761241871 email: info@alltree.co.uk website: www.alltree.co.uk



alltree

services ltd



2.0 Scope of survey

2.1 Undertake a visual assessment of the health and condition of the tree from ground level and record the findings.

2.2 Make recommendations where appropriate, to reduce risk of harm or damage to a level as low as reasonably practical.

3.0 Limitations and inspection notes

3.1 The tree was inspected by Jim Walker on 19th January 2017.

3.2 No information has been provided regarding any previous inspection or management of the tree.

3.3 No assessment has been made with regard to any impact the tree may have on buildings or structures, with the exception of direct contact from aerial parts. Comments are restricted to arboricultural considerations associated with tree condition and safety.

3.4 The tree was inspected from ground level using the visual tree assessment method (Mattheck and Breloer 1994). Only binoculars, nylon mallet and metal probe have been used to aid tree assessment. No internal decay detection devices were utilised.

of

3.5 Stem diameter has been measured at 1.5m from ground level and rounded to the nearest 10mm. Tree height has been measured with a clinometer. All other measurements are estimated and approximate.

3.6 It was not possible to gain access to the neighbouring properties at the time of inspection, therefore all observations have been made from 32 St John's Road and Chantry Road.

3.7 This report and the recommendations within it are valid for a period of twelve months from the date of survey.

4.0 Risk management

4.1 The overall risk to human safety from tree failure is extremely low. Each year between five and six people in the UK are killed by trees, which equates to a risk of about one in ten million. The Health and Safety Executive consider risks below one in a million to be broadly acceptable and comparable to those that people regard as insignificant within their daily lives (HSE 2001).

4.2 In 2011, following extensive industry and government consultation, The National Tree Safety Group (NTSG) produced its guide to tree risk management - Common Sense Risk Management of Trees. Its overall approach is that the evaluation of what is considered reasonable tree management should be based on a balance between the benefits and risks from trees. This position is underpinned by a set of five key principles:

- Trees provide a wide variety of benefits to society
- Trees are living organisms that naturally lose branches or fall
- The overall risk to human safety is extremely low
- Tree owners have a legal duty of care
- Tree owners should take a balanced and proportionate approach to tree safety management

4.3 Landowners, together with any party who has control over a tree's management, have a legal duty to take reasonable care for the safety of those who may come within the vicinity of a tree. Trees are dynamic, living organisms that may shed branches or fail as

part of their natural processes. Although the risk of harm from failure is clearly very low, no tree can be considered entirely risk free. It would be unacceptable to attempt to remove all risk from trees, both in terms of loss of the many benefits that they provide, as well as the huge cost implications. A tree owner is not, therefore, expected to guarantee that their trees are safe. They should take only reasonable care such as could be expected from a reasonable and prudent landowner, to consider the risks posed by their trees (NTSG 2011).

- 4.4 In line with current guidance this survey aims to provide a reasonable assessment of tree condition and risk, which balances the benefits that the tree provides with the duty of care owed by the tree owner.

Services Ltd,
01761 241871

5.0 Findings

- 5.1 The tree is mature black pine located in the northeast corner of the rear garden of 32 St John's Road, Clifton, BS8 2HG. It is situated in a small raised bed within 40cm of two stone boundary walls. It is 20m in height with a stem diameter of 850mm and an average crown spread radius of 7m.
- 5.2 The tree has a very slight stem lean to the south, with an estimated crown spread radius of 7m on the north, south and east aspects and 6m to the west. The canopy overhangs the gardens of 32 St John's Road to the north and 28 and 30 Hurle Crescent to the east. Ground level in the gardens of Hurle Crescent is approximately 1m higher than the tree base.
- 5.3 A utility pole is located 2m to the northeast of the tree, with telephone cables running beneath the canopy to adjacent properties; two of which are abrading the stem.
- 5.4 The tree is a prominent specimen, being highly visible from Chantry Road to the south. It appears to be in fair physiological health with normal needle size and extension growth for its age and species. However there is minor foliar chlorosis around the outer canopy.
- 5.5 There were no signs of ground disturbance or root plate movement at the time of inspection; nor was there any evidence of fungal fruit bodies around the root zone, base or lower stem. The adjacent boundary walls were not inspected in detail but appear to be structurally sound.
- 5.6 The main stem is lightly ivy covered. There are numerous old pruning wounds up the main stem and scaffold stems to approximately 14m. Some of these wounds remain unoccluded with resinous exudation. In particular there is a suspected old pruning wound beneath the ivy at 4m on the east aspect and a large unoccluded wound at 8m on the south east aspect.
- 5.7 The main stem forks at 8.5m and 10m to three scaffold stems. It appears that historically the tree was topped at approximately 11m-12m. In response to this the surviving laterals have grown phototropically to form six vertical crown stems (Plate 1).

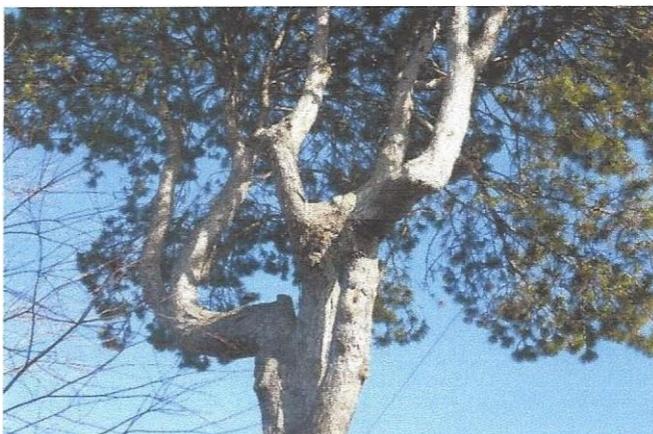


Plate 1

5.8 The southwest scaffold stem has an acute dog-legged formation at 11m, with an unoccluded pruning wound and open cavity below the elbow on the south/southeast aspect (Plate 2). The stem then grows vertically before dividing into two at 13m.



Plate 2

5.9 The central scaffold stem forks at 11m to two crown stems. The westernmost of these two stems divides again into two at 12m, one of which has recently been lost or removed. There is a large pruning wound, plus a possible compression fork union at the base of the remaining stem (Plate 3).



Plate 3

5.10 The northern scaffold stem at 10m grows horizontally for 1.5m before dividing into two vertical crown stems and one secondary stem. There appears to be some bark dysfunction and/or fibre buckling on the underside (Plate 4).



Plate 4

- 5.11 Lower branches have been progressively removed over time to raise the crown of the tree. Canopy height is now at approximately 13m on the north, east and south aspects and 15m on the west aspect.
- 5.12 The loss/removal of the crown stem has resulted in a light crown asymmetry to the east.
- 5.13 The crown stems divide at between 13m and 14m to form a dense canopy with numerous crossing and rubbing limbs, together with dead wood up to approximately 5cm diameter.

6.0 Discussion

- 6.1 The tree is a variety of black pine that is commonly planted for forestry and shelterbelt purposes. It grows well in most soil types and is considered to be generally wind firm. It copes well with exposure, pollution and drought and may also be long-lived (200 years +).
- 6.2 In general, the tree seems to be in fair structural condition with no obvious significant defects at the base or on the main stem. However, there are structural faults and signs of stress around the old topping point at approximately 10m-12m, where there are abruptly angled stem formations, tight fork unions, bark inclusions, fibre buckling and a small cavity.
- 6.3 The tree has been excessively crown lifted over the years and recent loss/removal of crown growth on the west aspect has exposed internal unadapted growth to prevailing westerly winds.
- 6.4 Physiologically the tree is in fair condition, with no signs of imminent decline, although there is some light yellowing of foliage on the crown periphery.

6.5 The tree is a prominent specimen within the local landscape with high visual amenity. Being evergreen its prominence increases during the winter months, when the surrounding deciduous trees have lost their leaves.

- 6.6 In my opinion the most likely point of failure in strong winds will be from individual crown stems or branches. Due to past management and the current form of the tree, there is little scope for remedial work to reduce mechanical stress. Light crown thinning would help reduce the wind sail of the whole crown, but this may also increase exposure to unadapted growth and raise the likelihood of failure of individual crown parts.
- 6.7 Given the close proximity of the tree to residential properties, it is likely that shedding of needles, cones and minor live and dead growth may be considered a problem by residents. However, these are all natural processes and are unlikely to be considered grounds for tree removal by the Local Planning Authority in any future application.
- 6.8 The target in the event of branch/stem failure would be residential gardens. This is most likely to occur during periods of extreme weather when the gardens are not in use; therefore in my opinion the risk of personal injury should this occur is low.
- 6.9 In my opinion the tree may be retained in the short to medium term. However given its position close to residential properties I recommend that it is inspected annually and after periods of extreme weather. In addition, an aerial inspection should be undertaken within twelve months to investigate the identified defects around the old topping point at 10-12m, plus any defects not visible from the ground.

7.0 Legal and good practice

- 7.1 It is understood that the tree is protected by a Tree Preservation Order. With the exception of removal of dead wood, planning consent must be obtained from the Local Planning Authority prior to any treework being carried out.
- 7.2 All tree work should be undertaken to BS 3998:2010 'Tree Work - Recommendations' and carried out by a suitably qualified and experienced contractor.
- 7.3 Attention is drawn to the Wildlife and Countryside Act 1981 (as amended), Countryside and Rights of Way Act 2000, and The Conservation of Habitats and Species Regulations 2010. These acts and regulations provide statutory protection for listed species of flora and fauna. Of particular relevance to tree work is the comprehensive protection afforded to birds and bats. This has implications for timing of works, as well as the requirement for surveys and licences in certain cases.

Services Ltd,
01761 241871 of

References

National Tree Safety Group, (2011). Common Sense Risk Management of Trees. FC

Lonsdale, D. (1999). Principles of tree hazard assessment and management. HMSO, London.

Strouts, R.G. & Winter, T.G. (1994). Diagnosis of ill-health in trees. HMSO, London.

Mattheck, C. & Breloer, H. (1994). The body language of trees: A handbook for failure analysis. Research for amenity trees 4. HMSO, London.

Fay, N, Dowson, D & Helliwell, R (2005). Tree Surveys: A Guide to Good Practice. Arboricultural Association.

Schwarze F.W.M.R, Engels J & Mattheck C (2004). Fungal Strategies of Wood Decay in Trees. Springer, Heidelberg.

Shigo, Alex L. (1991). Modern Arboriculture. Shigo & Trees Associates, Durham NH.

Weber, K. & Mattheck, C. (2003). Manual of wood decay in trees. Arboricultural Association.

Mattheck, C. (2007). Updated Field Guide for Visual Tree Assessment. Karlsruhe GmbH

British Standards Institution, (2010). BS 3998:2010 Tree Work - Recommendations. London

Health and Safety Executive, (2001). Reducing risks protecting people. HSE's decision making process. HSE book. Sudbury.

Health and Safety Executive, (2007) Management of the risk from falling trees. HSE Sector Information Minute, SIM01/2007/056.

Trees & Design Action Group, (2015). Trees in Hard Landscapes —A Guide for Delivery. TDAG

of

Appendix A - Tree Schedule

32 st John's Road, Clifton, Bristol, BS8 2HG

Tree Number	Common & Scientific Name	Stem Diameter (mm)	Crown Spread(m)	Physiological Condition	Structural Condition	Condition and Site Notes	Recommendations	Work Priority	Re-inspect Frequency
			S W						
	Black Pine Pinus nigra	0	7 7 7 6	F	F	<ul style="list-style-type: none"> • Located in northeast corner Of rear garden immediately adjacent to two stone boundary walls. Stem base 300mm from east wall and 400mm from north wall. • In small raised brick bed. Elder at base on north aspect and holly to southeast • Utility pole 2m to northeast - cables running beneath canopy, two abrading stem • No apparent defects at base. Light ivy. Slight lean to south • Numerous old pruning wounds on main stem, some unoccluded with resinous exudation. Suspected Old pruning wound at 4m on east aspect. Large pruning wound on stem at 8m on southeast aspect <p>Main stem forks at 8.5m and 10m to three scaffold stems. Appears historically topped at 11-12m- Laterals have grown phototropically to form six crown stems Southwest scaffold stem acute dog-legged formation at 11m with unoccluded pruning wound and open cavity below elbow on south/southeast aspect. Stem then grows vertically and forks again at 13m to two stems</p> <p>Central scaffold stem forks at 11m to two stems - westernmost divides again into two at 12m, one Of which is recently lost/removed. Large pruning wound and possible compression fork union at base of remaining stem.</p> <p>North scaffold stem at 10m grows horizontally for 1.5m, then divides into two vertical crown stems and one secondary stem. Appears to be some bark dysfunction and/or fibre buckling on underside Dense crown. Crossing and rubbing branches.</p> <p>Minor deadwood up to 5cm diameter</p> <p>Minor foliar chlorosis around outer canopy</p>	Carry out detailed aerial inspection and report in particular to investigate past pruning wounds and defects around Old topping point at 10-12m	1	1

Client XXXXX
 Su rveyor Jim Walker TechArborA
 Date 19th January 2017
 Appendix 1: Survey schedule Of Corsican Pine at 32 St Johns Road, aifton, Bristol, BS82HG
 All Tree Services Ltd, Cutters Green, Chewton Mendip, Somerset, BA34NE
 Survey date: 19th January 2017
 Surveyor: Jim Walker TechArborA

Key to

Schedule

Estimated Height (m) Height estimated in metres

Stem Diameter (mm) Stem diameter in mm measured at 1.5m or immediately above root flare for multi-stem trees

Crown Spread (m) Branch spread in metres as radius from stem taken at the four cardinal points (N, S, E, W)

Age Class
Y Young (newly planted tree 0-10yrs)
SM Semi-mature (tree in first third Of normal rife expectancy for species)
EM Early Mature (tree in second third of normal life expectancy for species)
M Mature (tree in final third of normal life expectancy for species)
OM Over mature (tree beyond normal life expectancy for species)

Physiological Condition V Veteran (tree that is of interest biologically, aesthetically or culturally because of its age, size or condition).

G Good Fully functioning biological system with normal extension growth, leaf/bud size, crown density, incremental growth for species
F Fair Fully functioning biological system but displaying below average extension growth, leaf/bud size, crown density, incremental growth for species.
p poor Biological system with low functionality- Symptoms include: - poor extension growth, small and/or chlorotic leaves, small buds, limited incremental growth, sparse crown and/or die back.

Structural Condition D Tree is dead

Work Priority
G Good Tree without any significant structural defects
F Fair Tree with minor defects that may be remedied with appropriate management.
p poor Tree with significant defects that cannot be remedied

Determining timing Of work:-

Re-inspection Frequency

1*	Urgent	Undertake work as soon as possible
1	High Priority	Work to be undertaken within twelve months
2	Moderate Priority	Work to be undertaken within twenty four months
3	Low Priority	Work to be undertaken as part of routine estate management

1	Reinspect in twelve months
2	Reinspect in twenty four months
3	Reinspect in thirty six months