

# Marcus Foster Arboricultural Design & Consultancy

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# <u>Tree Survey &</u> <u>Management Plan</u>

<u>Site</u>

Fitzroy Square London W1T 6EF

<u>Client</u>

Fitzroy Square Committee

Date of Report

May 2022

Report Reference

AS/MF/080/22

Report Prepared by

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## 1.0 Instructions

1.1 This report has been commissioned by Fitzroy Square Committee to survey, assess and provide recommendations for the trees within Fitzroy Square, London, W1T 6EF.

## 2.0 Introduction

2.1 A site visit was made on 11th May 2022 to survey and assess the trees within the grounds. The weather at the time of inspection was overcast with trees in early growing season with full bud burst having occurred.

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

2.3 The trees surveyed are shown in a site plan, *Appendix B*, and this corresponds to the Tree Survey Schedule - *Appendix A*.

2.4 This report and the opinions within it have been produced without prejudice by Marcus Foster a qualified Arboriculturist with over 20 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.

2.5 No documentation has been supplied relating to the trees for the compilation of this report.

## 3.0 Survey Details and Scope

3.1 The site survey included 12 no. trees (T1-T12) shown in the Tree Survey Schedule, *Appendix A*, and also highlighted on the site plan, *Appendix B*. The trees were surveyed in relation to:

(i) Hazard assessment to dispense with duty of care

3.2 All trees were surveyed from ground level. The heights of the trees were estimated and the diameters of the trunks were measured using a diameter tape.

3.3 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: approximate height in metres
- Tree Spread: approximate height in metres
- Stem diameter: measured in millimetres (mm) and taken at 1.5m above ground level
- Age Class: Y (young); EM (early-mature); M (mature); OM (overmature)
- Vigour: G (good); F (fair); P (poor); D (dead)
- Visual Condition: G (good); F (fair); P (poor); D (dead / dangerous / diseased)
- Structural conditions: Specific comments relating to each tree
- Management recommendations
- Priority Rating: Urgent (U); H (High); M (Moderate); L (Low)
- Inspection Priority: H (High); M (Moderate); L (Low)

3.4 The information contained within the report reflects the condition of the specimens examined at the time of the inspection. As the inspection was only visual no guarantee can be given concerning the condition of the wood at present any of the trees inspected and furthermore that no future problems or deficiencies may arise.

3.5 Information recorded in the tree survey is expanded in the report findings and a maintenance programme specified in the recommended schedule of works has been included.

3.6 Statutory protection is highlighted within the Tree Works Schedule - Section 6 where relevant.

## 4.0 Survey Limitations

4.1 No soil excavation or root inspection was carried out.

4.2 This report only considers 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 part of the trees inspected and furthermore that no future problems or deficiencies arise.

4.3 No internal decay devices/ invasive tools were used during this site survey.

4.4 Soil conditions have been researched but have not been physically investigated.

4.5 This report is a hazard assessment survey and further investigations may be required in order to reach firm conclusions and/or recommendations for action.

4.6 It should be noted that trees are dynamic organisms and are subject to environmental change / alterations further to site condition changes.

## 5.0 Tree Survey Findings

## Summary of Findings

5.1 The survey included all trees as specified within the site survey plan and survey findings, located within boundary of the site and neighbouring where relevant. A works specification has been included within Section 6 - Tree Works Schedule: Appendix A. This highlights all works, scheduled to be carried out under the following priorities:

• High Priority Works (H)

These works are scheduled to be carried out within 90 days of the survey having been carried out:

N/A

• Medium Priority Works (M)

These works are scheduled to be carried out within 1 year of the survey having been carried out:

*T2, T3, T4, T5, T6, T7, T11* 

• Low Priority Works (L)

These works are scheduled to be carried out within the next 3 years.

T10

5.2 The survey schedule also includes priority ratings for re-inspection of the trees which should be adhered to for continued hazard assessment within the communal grounds / land adjacent to public footpath. All trees are specified to be re-surveyed on a 'Low' priority every 3 years

## Summary Photographs

5.3 The following photographs and summary notes highlight the key findings:



Tree T8 as viewed to the east



Tree T7 as viewed to the north east



Tree T5 as viewed to the south



Tree T9 - crown reduced form as viewed to north west



Tree T12 as viewed to the south from entrance / shed area



Tree T11 as viewed to the west from the highway



Tree T2 as viewed to the north west



Area of decay / bark dieback historic to the tree (T2) at base to south



Tree T3 as viewed to the west



Trees T2-T4 as viewed to the north



Tree T4 as viewed to the south west



Area of decay with Gannoderma spp fruiting body at base to west of T4; good reaction growth surrounds point of decay / fungus



Tree T12 as viewed to the west within centre of square

5.4 Additionally where pruning is proposed to the lateral crown of trees T2 & T7 where over-extended the following photographs summarise these areas of the crown where works are specified



Over-extended north west crown of tree T2 at approximately 9-16 metres height



nded south west crown of tree T7 at approximately 8-16 Over-ext metres height

## Note on Massaria Disease of London Plane

5.5 The survey highlights that Massaria Disease of London Plane is evident as brittle fractures have been identified with selective decline of some areas of the crowns as highlighted within the schedule.

5.6 The disease may have developed from some of the key causal factors which include (list not exhaustive) compaction and drought of mature trees generally over 40 years of age, which these trees far exceed (with the exception of T5 which does not exhibit symptoms). These factors could account for the lower than normal crown densities for some of the London plane trees and the deadwood is evident.

5.7 Although a climbing inspection has not been undertaken and the disease is unconfirmed its presence within London and this species should be a key consideration where managing the trees in conjunction with the scheme. Given that water availability, drought and tree vitality appear to be significant factors it is vital to ascertain ways to improve disease resilience, such as through irrigation and improved soil porosity.

5.8 It is noted that the newly implemented landscape scheme including low shrub planting of *Prunus laurocerasus* 'Otto luyken' and *Sarcoccoca confusa* (within past 2 years) to the perimeter of the square within the root plate of trees includes an irrigation system which may alleviate any drought conditions for these trees. The status of the trees in relation to this implemented scheme shall be inspected within next inspection regime as included within recommendations.

## **Summary**

5.9 The trees within the site are generally in fair to good condition. The following works require prioritisation for continued management of the tree stock as follows:

- Implementation of MODERATE PRIORITY tree works within the scheduled 90 days timeframe
- Implementation of LOW PRIORITY tree works within the scheduled 2 year timeframe

5.10 The survey schedule also includes priority ratings for re-inspection of the trees - all to be re-surveyed within 1 year (with the exception of T10 as a 'Low' priority) - the cyclical inspection should be adhered to for continued hazard assessment within the land adjacent to public highway - Fitzroy Square.

## 6.0 Tree Works Schedule

6.1 Local Authority Permissions should be sought where applicable - checks should always be carried out prior to the commencement of any tree works. Statutory checks have been made and the following is applicable:

Local Planning Authority: London Borough of Camden

Conservation Area Status: Fitzroy Square Conservation Area

Tree Preservation Order Status: Checks not made - GIS information not available

6.2 All work must be carried out to BS3998: 2010 Tree Work Recommendations

6.3 Wildlife & Habitat Protection Guidelines are as follows:

The 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.

SECTION 6: TREE WORKS SCHEDULE - HIGH PRIORITY WORKS - PAGE 1/1 SITE: Fitzroy Square, London, W1T 6EF   DATE: May 2022							
Tree No.	Common Name	Tree Works					
		No works specified					

	SECTION 6: TREE WORKS SCHEDULE - MEDIUM PRIORITY WORKS - PAGE 1/1 SITE: Fitzroy Square, London, W1T 6EF I DATE: May 2022							
Tree No.	Common Name	Tree Works						
T2	London plane	Remove major deadwood Crown reduce over-extended lateral spread to north / north west - where required only - by up to 2.5m branch lengths to maximum 15m height to draw in over-extended laterals and balance with remainder of crown Crown lift to 6m height removing maximum sub 25mm diameter branches						
Т3	London plane	Remove major deadwood Crown lift to 6m height removing maximum sub 25mm diameter branches						
T4	London plane	Remove major deadwood Crown lift to 6m height removing maximum sub 25mm diameter branches						
T5	London plane	Crown lift to 5m height removing maximum sub 25mm diameter branches						
T6	London plane	Remove major deadwood Crown lift to 6m height removing maximum sub 25mm diameter branches and epicormic growth to this height						
Τ7	London plane	Remove major deadwood Crown lift to 6m height removing maximum sub 50mm diameter branches Crown reduce over-extended lateral spread to east / south-east - where required only - by up to 2.5m branch lengths to maximum 15m height to draw in over-extended laterals and balance with remainder of crown						
T11	London plane	Crown lift to 5m height removing maximum sub 25mm diameter branches						

	TREE WORKS SCHEDULE - LOW PRIORITY WORKS - PAGE 1/1 SITE: Fitzroy Square, London, W1T 6EF   DATE: May 2022							
Tree No.	Common Name	Tree Works						
T10	Purple plum	Remove reversion growth from upper crown to restore Purple plum form throughout. Prune to balance maximum 1m branch lengths						

# **Appendix A: Tree Survey Schedule**

### KEY TO TREE SCHEDULE

### Number:

Identity number which cross reference locations shown on the plan in Appendix A with the schedule in Appendix B also

### Species:

Listed by Latin name and / or common names as deemed appropriate

Tree Height: Height in metres

Tree Spread: Height in metres

### Stem diameter:

Measured in millimetres (mm) and taken at 1.5m above ground level

### Age Class: Y (young)

Recently planted or established tree - less than 150mm diameter

SM (semi-mature)

Established tree but with significant growth to reach optimum size and form EM (early-mature)

A tree at maturity but with potential for increased girth and spread which will continue to develop size and form

### M (mature)

A mature specimen within final third of lifespan; limited increase in size and/or development of form

OM (over-mature) A declining tree within latter stages of lifespan. Increased frequency within crown of structural defects and/or lower vigour are likely

### V (Veteran)

A tree of significant physical, biological, cultural or aesthetic value which has lived beyond the typical lifespan relative to species. Structural defects are likely a prominent feature and require appropriate management in relation to the importance of the tree Dead

The tree is dead and cannot be categorised within any of the above

## Physiological Condition:

G (good)
Generally in good health and condition - relative to species - and requiring no remedial action

- Minor deadwood may be evident although extent relative to species
- Leaf size, extension growth and crown density normal for species

F (fair)

- Tree is showing signs of stress including, although not exhaustive of lowered crown density, excessive deadwood, excessive epicormic growth, selective
- dieback, pests and diseases, abnormal leaf size / extension growth The condition may be alleviated with remedial works / plant health care although these works should not be prioritised in relation to health and safety P (poor)
- Tree is showing signs of signifiernt physiological decline including overall crown dieback, stag headed form, very poor crown density, limited extension growth, bud burst and decline thereafter, pest infestation
- Remedial work is unlikely to provide improvement in physiological condition
- D (dead The tree is no longer alive with no physiological attributes evident

### Structural condition:

- G (good)
- Few minor defects with overall good structural condition
- Showing no adverse risk of failure/s
- F (fair)
- A tree which has a structural defect (major in early / semi maturity or developing stages of life and minor in full maturity) which requires remedial action Structural defects could include significant compression forks, co-dominant stems, major deadwood, poor previous pruning, storm damage, limb failure,
- cavities, decay
- Tree may repair via self optimisation which could be dependant on species / age of tree. Or remedial tree works specified for management of defect P (poor)
- Tree's structural integrity compromised from poor structural condition
- Major structural defects may include decay, cavity, fungal fruiting bodies, significant dead wood, hanging limbs, major storm damage, excessive and significant pruning wounds D (dead)

Tree is dead

### **Comments & Observations**

Further to inspection comments which relate to both the physiological and structural condition of the tree and any important site factors also

### Management recommendations

Tree Works Specification in accordance with BS3998:2010 and where appropriate BS8545:2014

Work Priority Rating: U (Urgent)Immediately / Make safe within 24 hours VH (Very High) Within 5 days Also appropriate where significant site constraints / infrastructure organisation exists to enable implementation / 5 day notice H (High) Within 30 days M (Moderate)Within 90 days L (Low) Within 3 years. May refer to works related to aesthetics of the tree where deemed appropriate

### Inspection Frequency

U (Urgent)Carry out as soon as possible - likely for an aerial inspector VH (Very High)Within 30 days H (High)Within 6 months M (Moderate) Annually

L (Low) Every 3 years

## MARCUS FOSTER ARBORICULTURAL DESIGN & CONSULTANCY - TREE SURVEY SCHEDULE SITE: Fitzroy Square, London, W1T 6EF DATE OF SURVEY: 11th May 2022

Tree No.	Species	Height (m)	Stem Diameter (mm)	Crown Spread NESW (m)	Age Class	Structural Condition	Vitality	Comments	Recommendations	Work Priority Rating	Inspection Frequency
T1	London plane	5	50	2 1 1 1	Y	G	G	Newly planted tree within past 3-4 years. Staked with rope at 1.5m height; showing good vigour.	No action required at present.	1	L
T2	London plane	25	1310	12 10 8 9	М	G	F	Initial lean to south. Good sounding to base where tested with sounding mallet. Decay within buttress to west at ground level; limited reaction growth. Main branch framework develops from 5m height. Steel bracing at 10m to west - taught. Cobra bracing to south west at 11m height; slack. Selective crown reduction throughout, notably to west. Opening to upper western crown; selective dieback in upper crown (minor) likely associated with Massaria disease of London Plane. Lower crown showing improved vigour. North west root plate within hardscape to perimeter within 2m of main stem. Over-extended crown developing to north west	Remove major deadwood Crown reduce over-extended lateral spread to north / north west - where required only - by up to 2.5m branch lengths to maximum 15m height to draw in over-extended laterals and balance with remainder of crown Crown lift to 6m height removing maximum sub 25mm diameter branches	м	м
ТЗ	London plane	26	1420	10 9 10 10	М	G	G	Evenly distributed buttress roots at base. Straight main stem with crown break/branch framework developed from 6-7m height. Bifurcation at 9m sound. Cable bracing at 13m height from western leader to south west; bracing is slack. Improved density of crown to west and lower crown. Low growth developing to 3-4m. Absent lower northern crown from historic crown lifting. Historic management includes crown lifting, thinning and selective reduction to west.	Remove major deadwood Crown lift to 6m height removing maximum sub 25mm diameter branches	М	м
T4	London plane	27	1490	8 10 12 9	М	F	G	Accentuated buttress to east and west. Gannoderma spp fungal fruiting body within southern buttress at ground level with significant reaction wood surrounding to east and west. Where tested with sounding mallet, even sounding throughout. Main stem bifurcates at 4.5m height with dominant western leader. Steel bracing at 10m height between 2 main stems; appears taught. Absent lower northern crown from T3 adjacent to north. Low growth developing to 3m height. Lowering vigour developing within upper western crown likely associated with Massaria disease of London Plan. Historically crown lifted/ thinned/selectively reduced notably to west.	Remove major deadwood Crown lift to 6m height removing maximum sub 25mm diameter branches	м	М
T5	London plane	13	470	4 6 5 5	SM	G	G	Tree within 5m of sculpture. Newly planted in relation to mature specimens surrounding (likely post 1977 - age of adjacent sculpture feature with raised retainer where tree is sited). Lean/ growing to south west. Developing form.	Crown lift to 5m height removing maximum sub 25mm diameter branches	М	м
T6	London plane	26	1310	8 10 8 7	М	G	F	Accentuated buttress roots to north/west. Tested with sounding mallet at base - even sound density throughout. Lean to south east to main union with sound bifurcation to north and south leaders. Open cavity at 8m to north east; largely occluded. Developing lower main stem epicormic growth. Crown lifted to 9-12m with historic wounds fully occluded. Low growth developing to 4.5m height. Lowering vigour to upper crown, notably to east likely associated with Massaria disease of London Plan. Minor deadwood - dead 25mm diameter branches in mid to upper crown.	Remove major deadwood Crown lift to 6m height removing maximum sub 25mm diameter branches and epicormic growth to this height	м	м

Tree No.	Species	Height (m)	Stem Diameter (mm)	Crown Spread NESW (m)	Age Class	Structural Condition	Vitality	Comments	Recommendations	Work Priority Rating	Inspection Frequency
T7	London plane	26	1360	6 11 10 8	М	F	F	Accentuated buttress roots to west with lean to east. Base tested with sounding mallet with even density on all sides. Bifurcation at 3m height with co-dominant stems and sound union. Absent crown to north due to proximity of T8 to north. Bracing (cobra) at 16m from north east leader to eastern crown; slack. Eastern crown developing over-extended form in mid crown. Lowered vigour to upper crown notably to north. Additionally steel bracing from western to eastern leader; taught.	Remove major deadwood Crown lift to 6m height removing maximum sub 25mm diameter branches Crown reduce over-extended lateral spread to east / south-east - where required only - by up to 2.5m branch lengths to maximum 15m height to draw in over-extended laterals and balance with remainder of crown	М	М
Т8	London plane	20	1520	5 6 4 5	М	F	F	Even distribution of buttress roots with exception of to north. To north open cavity with kretzschmaria deusta fruiting bodies in early stages of colonisation. Reaction wood to west, limited to east and main buttress adjacent to decay where tested with sounding mallet showing poor density; remainder or buttress sound. Main branch framework reduced within past 12-18 months throughout to give compact form in response to decay pocket.	No action required at present	1	М
Т9	London plane	18	1600	8 6 6 6	М	F	F	Lean to north east. Sounding mallet shows even distribution of sound at base. Open cavity to west at 8m; occluding. Open cavity to south on secondary leader at 10m; occluding. Reduced to give compact branch framework at 8-18m within past 12 months.	No action required at present	I	М
T10	Purple plum	6	180	3 3 3 3	SM	F	G	Ornamental form. Upper crown reverting to root stock.	Remove reversion growth from upper crown to restore Purple plum form throughout. Prune to balance maximum 1m branch lengths	L	L
T11	London plane	16	710	8 7 6 7	SM	G	G	Lean to north. Sound at base where tested with sounding mallet. Balanced crown developing; dominant to north. Low growth developing to 4m.	Crown lift to 5m height removing maximum sub 25mm diameter branches	М	М
T12	London plane	15	490	5 7 6 6	SM	G	F	Initial lean to east. Balanced crown developing. Low vigour to south. Compost heap on rootplate.	No action required at present	1	м

## **APPENDIX B: TREE SURVEY SITE PLAN**

SITE: Fitzroy Square, London, W1T 6EF DWG REF: T001 DRAWN BY: Marcus Foster (MF) DATE: May 2022



Scale 1:1250 @ A4 All canopies and stems plotted by MF - not via GIS

# **Appendix C: References**

- 1. Principles of Tree Hazard Assessment and Management, Lonsdale, D. (Department for Transport, Local Government and the Regions, 1999).
- 2. Trees in Britain, Philips, R. (Pan Books, 1978)
- Diagnosis of III-health in Trees, R.G. Strouts & T.G.Winter (Department for Transport, Local Government and the Regions, 1994).
- 4. BS3998: Tree Work Recommendations (2010)

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