

# Arboricultural Impact Assessment and Tree Protection Plan

for trees at

## Dolphin Square Project Future



*On behalf of*

**The Dolphin Square Ltd**

Dolphin Square  
London  
SW1V 3LX

*Inspected and prepared by*

Ben Rose BSc (Hons) MSc DipArb (RFS) MICFor RCArborA  
*Chartered Arboriculturist*  
*Arboricultural Association Registered Consultant*

2<sup>nd</sup> November 2021

## SUMMARY

This arboricultural impact assessment report supports a planning application, submitted by Dolphin Square Ltd, for the restoration and re-landscaping of the gardens at Dolphin Square in London.

Arboricultural advice was taken early in the planning process with the aim of incorporating the best trees on the site. The garden restoration works will require 72 trees to be removed, including two B-grade trees, 68 C-grade trees and two trees in poor condition (category U trees). Although 11 of the trees to be removed are to be saved and relocated in another part of the garden. The trees that are scheduled for removal are mostly small-growing trees, palms and shrubs; the new landscape design retains all of the larger specimen trees. Nevertheless, the loss of these trees will be compensated by new tree planting that has been designed to complement the new site layout. These new trees will also provide age and species diversity to enhance the resilience of the existing tree canopy cover.

To avoid soil compaction, vehicle use by construction traffic must only be permitted on areas that are currently paved.

For this project I do not consider the use of temporary tree protection fencing will be appropriate because I do not expect there to be new building foundations or underground services to be installed. Also, the use of construction vehicles will be restricted for use only on the existing network of paths and hard surfacing.

Supervision by a suitably qualified arboriculturist will be required in the event of any unforeseen construction activity within the root protection area of retained trees at or near the development site. It is advised to inform the project arboriculturist and the local authority's arboricultural officer of necessary works near trees as soon as they become apparent.

This report also includes further advice on the protection of trees during construction works. The site manager must be made aware of the tree protection requirements at the site. They must be given a copy of this report and impart the information herein to all construction staff.

## Contents

|  |          |
|--|----------|
| <b>Summary .....</b>   | <b>i</b> |
| <b>1 Introduction .....</b>  | <b>1</b> |
| 1.1 Background .....   | 1        |
| 1.2 The assignment .....   | 1        |
| 1.3 Limitations.....   | 2        |
| <b>2 Tree Survey Information.....</b>                                  | <b>2</b> |
| 2.1 Details of the site visit.....                                     | 2        |
| 2.2 Data collection .....  | 2        |
| 2.3 The tree protection plans .....                                    | 3        |
| <b>3 Arboricultural Impact Assessment and Proposed Mitigation.....</b> | <b>3</b> |
| 3.1 Trees for removal.....   | 3        |
| 3.2 New tree planting .....  | 3        |
| 3.3 Construction access .....  | 3        |
| 3.4 New service runs.....  | 4        |
| 3.5 Tree protection fencing .....                                      | 4        |
| 3.6 General method statement for effective tree protection .....       | 4        |
| <b>4 Recommendations .....</b>   | <b>5</b> |
| 4.1 Tree work .....  | 5        |
| 4.2 Legal restrictions to tree works .....                             | 5        |
| 4.3 Arboricultural supervision.....                                    | 6        |

Appendix 1: Tree schedule, group schedule and schedule key

Appendix 2: Table listing all trees to be removed

Appendix 3: Tree protection plans (TPP-1 and TPP-2)

## 1 INTRODUCTION

### 1.1 Background

Dolphin Square Ltd proposes a new development at Dolphin Square in London (SW1V 3LX). This land is hereafter referred to as the 'site'. Project Future will involve numerous building restoration operations and the re-landscaping of the communal gardens; these proposals are hereafter referred to as the 'proposed development'.

The following documents have been reviewed to inform this report:

- General Arrangement Plan - Sally Prothero Landscape Architecture - Drawing numbers 035\_300 Series GA-A1\_310 to 035\_300 Series GA-A1\_318

An initial tree constraints plan was produced in September 2021 and this has informed the layout of the proposed site layout.

A check of the Westminster Council online mapping system confirms that the site is within the Dolphin Square conservation area.

### 1.2 The assignment

Instructed by Dolphin Square Ltd, Bosky Trees conducted a site visit, surveyed the trees that might be affected by the proposed development and specified suitable tree protection measures in the event of a successful planning application. The information compiled in this report is in accordance with the British Standard *BS5837:2012 – Trees in relation to design, demolition and construction – Recommendations*.<sup>1</sup>

This report includes the following to accompany a planning application for the proposed development:

- A tree survey plan based on the topographical survey provided, with any additional tree(s) indicatively plotted
- An arboricultural impact assessment of the proposed development, identifying trees that will be lost, as well as trees that can be retained and protected during development works
- A tree protection plan, including information on the location of tree protection fencing and ground protection measures
- Recommendations for remedial works for retained trees to be undertaken before site clearance and construction
- Method statements for works near trees

---

<sup>1</sup> British Standards Institution (2012). *BS5837 Trees in relation to design, demolition and construction – Recommendations*. BSI: London.

### 1.3 Limitations

The assessment and works recommendations relate to conditions found at the time of inspection. Any significant alteration to the site that may affect present trees, or have implications for planning (including level changes, hydrological changes, storms, extreme climatic events or site works) will necessitate re-assessment of the trees.

Note that this survey is not a tree safety inspection; it has been carried out to inform the planning process. Where clear and obvious hazards have been observed, these have been addressed in the works recommendations. A full assessment of the risks posed by trees would be informed by consideration of site use together with hazards present within a tree. Changes in site use are likely to occur during, and result from, the proposed development. Given these factors, regular tree risk assessments are advised.

This report does not consider tree-related building subsidence. If shrinkable clay soils are present on site, then guidance given in the National House Building Council (NHBC) Standards, chapter 4.2<sup>2</sup> should be used to avert the risk of future subsidence of new buildings.

No detailed assessment of the potential conflict between future Site use and the shade cast by trees has been undertaken within this report.

## 2 TREE SURVEY INFORMATION

### 2.1 Details of the site visit

Ben Rose of Bosky Trees visited the site and carried out tree surveys on 22<sup>nd</sup> April 2021. The survey was not constrained by weather conditions and considered all trees on and around the site.

The site is a large private residential building with parking and leisure facilities. A central courtyard is occupied by a variety of trees and shrubs which largely consist of horse chestnut, olive and palm.

### 2.2 Data collection

Trees, tree groups and hedgerows were allocated a unique identifying number, used throughout this report. ID numbers are listed in the tree schedule and are used on the tree plans.

Trees were inspected at ground level using the visual tree assessment method.<sup>3</sup> As described in table 1 of BS5837,<sup>4</sup> each tree was placed into one of four retention categories: A, B, C or U. Stem diameter was used to calculate the root protection area (RPA)<sup>5</sup> required by each tree during construction. Information on each tree and tree group is given in Appendix 1.

---

<sup>2</sup> National House Building Council (2008). *NHBC Standards Chapter 4.2 - Building near trees*. NHBC: Milton Keynes.

<sup>3</sup> Mattheck, C. and Breloer, H. (1995). *The body language of trees: a handbook for failure analysis*. Research for Amenity Trees 4. HMSO: London.

<sup>4</sup> British Standards Institution (2012). *BS5837 Trees in relation to design, demolition and construction – Recommendations*. BSI: London.

<sup>5</sup> The root protection area (RPA) is a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of roots and soil structure is treated as a priority.

A total of 124 individual trees and two groups of trees were surveyed (see table 1).

**Table 1: Summary of the retentive worth of trees and tree-groups included in the survey**

| <b>BS5837 Category</b> | <b>Quality</b> | <b>Number of trees</b> | <b>Number of groups</b> |
|------------------------|----------------|------------------------|-------------------------|
| A                      | High           | 4                      | 2                       |
| B                      | Moderate       | 20                     | 0                       |
| C                      | Low            | 98                     | 0                       |
| U                      | Very poor      | 2                      | 0                       |
|                        | <b>Total</b>   | <b>124</b>             | <b>2</b>                |

### **2.3 The tree protection plans**

The tree protection plans (TPP-1 and TPP-2) show the root protection areas required by each tree and identifies which trees are to be removed to enable the proposed development.

## **3 ARBORICULTURAL IMPACT ASSESSMENT AND PROPOSED MITIGATION**

### **3.1 Trees for removal**

72 individual trees must be removed to construct the proposed development but 11 of these will be re-located within the site. The removals include two category B trees and 68 category C trees.

The removal of two further trees is recommended, regardless of development proposals, because they are in poor condition and have less than 10 years useful life expectancy. These trees are considered to be category U, in accordance with guidance provided in table 1 of BS5837.

The trees that are scheduled for removal are mostly small-growing trees, palms and shrubs; the new landscape design retains all of the larger specimen trees. A table listing all the trees to be removed is provided in Appendix 2.

### **3.2 New tree planting**

The loss of trees will be compensated by an extensive programme of new tree planting. A total of 30 new trees will be planted to compliment the new site layout. The proposed locations for these trees are shown on the planting plans produced by Sally Prothero Landscape Architecture that accompany this submission. The new trees will provide age and species diversity to enhance the resilience of existing tree canopy cover.

### **3.3 Construction access**

The building restoration works will require scaffolding to be installed within Dolphin Square Garden. The scaffolding itself will need to be delivered to site on heavy goods vehicles (HGVs). Soil compaction can occur quickly by vehicles passing over an area of soil. Compaction may cause reduced infiltration rates of water, poor drainage, reduced availability of water and reduced air and oxygen supply to roots. This leads to reduced root growth and, as a result, the health of the tree is affected. To avoid soil compaction, vehicle use must only be permitted on areas that are currently paved.

The scaffolding itself must be carefully installed to avoid damaging soft landscaped areas and above-ground conflicts with tree crowns. Care must be taken when planning site operations to ensure that wide or tall loads, or plants with booms, jibs and counterweights, can operate without coming into contact with retained trees. If necessary, branches may be tied out of the way.

If construction staff need pedestrian access over tree root protection areas ground protection will be required (the root protection areas required by the retained trees are shown on the tree protection plans). Direct ground protection can be provided by load spreading boards laid on top of a 5cm layer of woodchip mulch. Alternatively, a low-level walkway could be installed the scaffolding just above ground level.

### **3.4 New service runs**

Typical 'open trench' installation of underground services near trees is likely to sever roots; this will harm the tree's physiological condition, provide an opportunity for fungal infection, and could leave them prone to windthrow. Therefore, new underground services will be located and designed to avoid retained trees' root protection areas.

If any additional underground services are required it will be necessary for suitable members of the project team, including an arboricultural consultant, to design their routes. An appropriate specification and method statement are required for their installation and guidance provided in Volume 4 of the National Joint Utilities Guidelines (NJUG4)<sup>6</sup> must be followed.

### **3.5 Tree protection fencing**

For this particular project I do not consider the use of temporary tree protection fencing will be appropriate because I do not expect there to be new building foundations or underground services to be installed. Also, the use of construction vehicles will be restricted for use only on the existing network of paths and hard surfacing.

### **3.6 General method statement for effective tree protection**

Trees are vulnerable to root damage caused by ground disturbance, direct injury of the trunk or branches, environmental change, pests and diseases. Construction work often exerts pressures on existing trees. A tree that has taken many decades to reach maturity can be irreparably damaged in just a few minutes by unwitting or negligent actions. The site manager must be informed of the tree protection requirements at the site and the guidance in this report.

All construction staff should be made aware of the following restrictions applying to root protection areas of retained trees:

- 1) Excavation or raising of soil levels is prohibited within root protection areas without written permission from the project arboriculturist.
- 2) Site offices and staff welfare facilities must be located outside of root protection areas unless agreed with the local authority's arboricultural officer.
- 3) No materials of any kind should be stored within the root protection area.

---

<sup>6</sup> National Joint Utilities Group (2007). *Guidelines for the planning, installation, and maintenance of utility apparatus in the proximity to trees*. Volume 4 (NJUG4). National Joint Utilities Group: Eastleigh.

- 4) No utility trenches should be routed through a root protection area without written permission from the local authority's arboricultural officer.
- 5) Care must be taken when planning site operations to ensure that wide or tall loads, or plants with booms, jibs and counterweights, can operate without coming into contact with retained trees. If necessary, branches may be tied out of the way.
- 6) Potential contaminants, such as fuel, oils and chemicals, must be stored on an impervious base within a bund able to contain at least 110% of the volume stored. Provision must also be made for any spillage or run-off to be contained away from the protected area.
- 7) Cement and concrete mixing must take place at least 10m from any trees, over a suitable hard surface to prevent soil contamination from spillage or washing out.
- 8) Avoid fires; however, if permitted by the site manager, they must not be lit where heat could affect foliage or branches (at least 15m from the base of a tree is normally sufficient).

## 4 RECOMMENDATIONS

### 4.1 Tree work

All tree works necessary for the proposed development are listed in the schedule in Appendix 1.

All permitted and approved tree work must be undertaken in accordance with BS3998:2010 *Recommendations for tree work*,<sup>7</sup> ideally at the beginning of the construction phase, before protective fencing is erected. Only qualified and insured tree surgeons should be employed.

### 4.2 Legal restrictions to tree works

The *Town and Country Planning (Tree Preservation) (England) Regulations 2012*<sup>8</sup> and the accompanying *Guide to tree preservation procedures* make clear that it is an offence to deliberately destroy a tree subject to a tree preservation order, or to damage it in a manner that is likely to destroy it, without the permission of the local planning authority. To do so is punishable by an unlimited fine and a replacement tree would normally need to be planted. Trees standing within a conservation area protected in the same way as a tree protected by a tree preservation order.

If this report is submitted with a full planning application that is subsequently approved, any tree works listed in this report may be carried out before construction work begins without further permission from the local planning authority. However, since the trees are situated in a conservation area, any arboricultural works taking place before planning permission has been approved must be granted by application for tree works to the local planning authority. Similarly, permission will be required for any additional tree pruning works that are listed in Appendix 1.

---

<sup>7</sup> British Standards Institution (2010). *BS3998 Recommendations for tree work*. BSI: London.

<sup>8</sup> Town and Country Planning, England. *The town and country planning (tree preservation) (England) regulations 2012*. Town and Country Planning, England: London. Available at: [https://www.legislation.gov.uk/uksi/2012/605/pdfs/uksi\\_20120605\\_en.pdf](https://www.legislation.gov.uk/uksi/2012/605/pdfs/uksi_20120605_en.pdf).



Works may be constrained between March and August because it is illegal to disturb an active bird's nest. Bat roosts are also protected, so tree works might be delayed if roosting bats are encountered. A tree surgeon or ecologist will advise on this matter.

### **4.3 Arboricultural supervision**

Supervision by a suitably qualified arboriculturist is required if any unforeseen construction activity is to take place within the root protection area of any trees retained on or near the site. The project arboriculturist and the local authority's arboricultural officer should be informed of necessary works near trees as soon as they become apparent.

Appendix 1 - Tree Schedule

Site: Dolphin Square Gardens

Surveyor: Ben Rose

Date of Survey: 22nd April 2021



| Area | Tree Number | Tree Species              | Height (m) | Number of Stems | Stem $\phi$ (cm) | N - Radius (m) | S - Radius (m) | E - Radius (m) | W - Radius (m) | 1st Branch (m) | Age Class | Overall Health | ULE (Years) | Tree Structural Condition & Site Notes  | Recommended Management                                       | Category |
|------|-------------|---------------------------|------------|-----------------|------------------|----------------|----------------|----------------|----------------|----------------|-----------|----------------|-------------|---|--|----------|
| W1   | T1          | Cherry                    | 6          | 1               | 15               | 4.5            | 3              | 3.5            | 1.5            | 3              | EM        | G              | 10+         | Growing in a raised wooden frame approx. 0.8m tall and 1.2m square. Good overall condition. No obvious significant defects.   | Crown lift to 4m over the pathway to facilitate site access. | C1       |
| W1   | T2          | Cherry                    | 6          | 1               | 17               | 4.5            | 3              | 4              | 4.5            | 4              | EM        | G              | 10+         | Growing in a raised wooden frame approx. 0.8m tall and 1.2m square. Good overall condition. No obvious significant defects.   | No action required at present.                               | C1       |
| W1   | T3          | Cherry                    | 5          | 1               | 10               | 2              | 2.5            | 2              | 2              | 3.5            | EM        | G              | 10+         | Growing in a raised wooden frame approx. 0.8m tall and 1.2m square. Good overall condition. No obvious significant defects.   | No action required at present.                               | C1       |
| W1   | T4          | Cherry                    | 6          | 1               | 14               | 4              | 2.5            | 3              | 3.5            | 2              | EM        | G              | 10+         | Growing in a raised wooden frame approx. 0.8m tall and 1.2m square. Good overall condition. No obvious significant defects. Branches growing close to adjacent windows. | No action required at present.                               | C1       |
| W1   | T5          | Holly 'Argenta Marginata' | 9          | 1               | 16               | 2.5            | 2              | 2.5            | 2              | 2              | M         | G              | 40+         | No obvious significant defects.   | Fell to remove shading of nearby windows.                    | C1       |
| W1   | T6          | Holly 'Argenta Marginata' | 7          | 1               | 16               | 2.5            | 2.5            | 2.5            | 2.5            | 2              | M         | G              | 40+         | No obvious significant defects.   | Fell to remove shading of nearby windows.                    | C1       |
| W1   | T7          | Holly 'Argenta Marginata' | 8          | 1               | 17               | 2.5            | 2.5            | 2.5            | 2.5            | 2              | M         | G              | 40+         | No obvious significant defects.   | No action required at present.                               | C1       |
| W1   | T8          | Holly 'Argenta Marginata' | 6          | 1               | 12               | 2              | 2              | 2              | 1.5            | 2              | M         | G              | 40+         | No obvious significant defects.   | Fell to remove shading of nearby windows.                    | C1       |
| W1   | T9          | Sweet gum                 | 18         | 1               | 27               | 3              | 2.5            | 3              | 2.5            | 2              | M         | G              | 40+         | Raised surface roots with mower damage. Tall and narrow crown. Appropriate for this context.  | No action required at present.                               | A1       |
| W1   | T10         | Sweet gum                 | 16         | 1               | 20               | 3              | 3              | 4              | 2.5            | 3              | M         | G              | 40+         | Secondary stem developing from 2.5m. Tall and narrow crown. Appropriate for this context.   | Crown lift by removing the two branches at 2.5m.             | A1       |
| NW   | T11         | Tibetan cherry            | 6          | 1               | 15               | 4.8            | 1.2            | 3              | 4.5            | 3              | M         | G              | 10+         | Asymmetric crown, congested in the centre. Branches are touching the railings above.  | Formatively prune.   | C1       |
| NW   | T12         | Indian bean tree          | 12         | 1               | 25               | 5.5            | 4              | 5              | 1.5            | 2              | M         | G              | 20+         | Old trunk wounds up to 1.1m. Tree leans to east. Recent branch tear at 7m.  | Prune out the torn branch.                                   | B2       |
| NW   | T13         | Apple cv                  | 5          | 1               | 9                | 1.5            | 2              | 1              | 2              | 3              | SM        | G              | 20+         | Small tree with no obvious significant defects.   | No action required at present.                               | C1       |

A key explaining each category is provided at the rear of the schedule

| Area | Tree Number | Tree Species      | Height (m) | Number of Stems | Stem Ø (cm) | N - Radius (m) | S - Radius (m) | E - Radius (m) | W - Radius (m) | 1st Branch (m) | Age Class | Overall Health | ULE (Years) | Tree Structural Condition & Site Notes   | Recommended Management                           | Category |
|------|-------------|-------------------|------------|-----------------|-------------|----------------|----------------|----------------|----------------|----------------|-----------|----------------|-------------|--|--|----------|
| NW   | T14         | False acacia      | 9          | 1               | 26          | 4              | 2              | 3.5            | 2              | 4              | M         | F              | 10+         | Restricted root area. Stunted growth and branch dieback.   | No action required at present.                   | C1       |
| W2   | T15         | Cordyline palm    | 6          | 1               | 24          | 2              | 1              | 0.5            | 1              | 5              | M         | F              | 10+         | No obvious significant defects.  | Fell to allow restoration.                       | C1       |
| W2   | T16         | Cordyline palm    | 6          | 1               | 15          | 3              | 0.5            | 2.5            | 1              | 4              | M         | F              | 10+         | Secondary stem developing at base. Two small dead limbs. No obvious significant defects.   | Fell to allow restoration.                       | C1       |
| W2   | T17         | Cordyline palm    | 7          | 1               | 16          | 3              | 0              | 3              | 0              | 5              | M         | F              | 10+         | Trunk lean. No obvious significant defects.  | Fell to allow restoration.                       | C1       |
| W2   | T18         | Cordyline palm    | 5          | 1               | 13          | 1              | 0.5            | 0.5            | 1              | 4              | M         | F              | 10+         | No obvious significant defects.  | No action required at present.                   | C1       |
| W2   | T19         | Cordyline palm    | 6          | 1               | 19          | 2              | 2              | 1              | 2              | 5              | M         | F              | 10+         | No obvious significant defects.  | Fell to allow restoration.                       | C1       |
| NW   | T20         | Apple cv          | 4          | 1               | 10          | 2.5            | 2.5            | 1.5            | 2              | 1              | SM        | G              | 20+         | Small tree with no obvious significant defects.  | No action required at present.                   | C1       |
| NW   | T21         | Cherry            | 6          | 1               | 7           | 1              | 1.5            | 1.5            | 1              | 3              | SM        | P              | <10         | Sparse foliage. Poor form. Little long-term future.  | Remove and replace.                              | U        |
| C    | T22         | Bull bay magnolia | 7          | 1               | 18          | 2.5            | 3              | 3              | 3              | 2              | EM        | G              | 40+         | This is an attractive tree in a prominent location. Low crown.   | No action required at present.                   | A1       |
| C    | T23         | Chinese magnolia  | 5          | 3               | 14          | 2              | 3.5            | 3.5            | 1              | 2              | EM        | G              | 40+         | Slight lean away from the building. No obvious significant defects.  | No action required at present.                   | B1       |
| C    | T24         | Cordyline palm    | 5          | 1               | 18          | 0.5            | 0.5            | 0.5            | 0.5            | 3              | M         | F              | 10+         | Past crown retrenchment.   | Fell to allow restoration.                       | C1       |
| C    | T25         | Black mulberry    | 7          | 3               | 30          | 3              | 3.5            | 3              | 3.5            | 1.5            | M         | G              | 40+         | Two large wounds from poor pruning cuts on the trunk. Healthy and attractive crown. No obvious significant defects. Presented by the Worshipful Company of Fruiterers in 1989. | No action required at present.                   | B1       |
| C    | T26         | Apple             | 8          | 1               | 30          | 5              | 3              | 5.5            | 4.5            | 2              | M         | G              | 40+         | Dense crown (would benefit from a prune).  | Thin/prune using traditional orchard techniques. | B1       |
| C    | T27         | Cordyline palm    | 5          | 3               | 24          | 1.5            | 1.5            | 1.5            | 1.5            | 3              | M         | G              | 20+         | Three stems from 0.2m.   | Fell to allow restoration.                       | C1       |
| W3   | T28         | Cordyline palm    | 4          | 1               | 9           | 0.5            | 0.5            | 0.5            | 0.5            | 3              | M         | F              | 10+         | Sparse foliage.  | Fell to allow restoration.                       | C1       |
| W3   | T29         | Japanese privet   | 5          | MS              | 21          | 2              | 3              | 2              | 3.5            | 3              | M         | G              | 40+         | Low crown. Appropriate for the location.   | No action required at present.                   | B2       |
| W3   | T30         | Japanese privet   | 5          | MS              | 20          | 2              | 3.5            | 2              | 2.5            | 2              | M         | G              | 40+         | Low crown. Appropriate for the location.   | No action required at present.                   | B2       |
| W3   | T31         | Japanese privet   | 5          | MS              | 25          | 2              | 3.5            | 2.5            | 3              | 2              | M         | G              | 40+         | Low crown. Appropriate for the location.   | No action required at present.                   | B2       |
| W3   | T32         | Japanese privet   | 5          | MS              | 25          | 3              | 3              | 2              | 3.5            | 2              | M         | G              | 40+         | Low crown. Appropriate for the location.   | No action required at present.                   | B2       |

A key explaining each category is provided at the rear of the schedule

| Area | Tree Number | Tree Species   | Height (m) | Number of Stems | Stem Ø (cm) | N - Radius (m) | S - Radius (m) | E - Radius (m) | W - Radius (m) | 1st Branch (m) | Age Class | Overall Health | ULE (Years) | Tree Structural Condition & Site Notes  | Recommended Management                                       | Category |
|------|-------------|----------------|------------|-----------------|-------------|----------------|----------------|----------------|----------------|----------------|-----------|----------------|-------------|---|--|----------|
| W3   | T33         | Bay            | 9          | 2               | 16          | 2              | 3              | 3              | 2.5            | 3              | EM        | G              | 40+         | Tall and narrow crown. No obvious significant defects.  | Fell to remove shading of nearby windows.                    | B1       |
| W3   | T34         | Cordyline palm | 4          | 1               | 13          | 1              | 0.5            | 1              | 0.5            | 3              | M         | F              | 10+         | Suppressed by adjacent bay.   | Fell to allow restoration.                                   | C1       |
| W4   | T35         | Cordyline palm | 7          | 1               | 12          | 0.5            | 1              | 1              | 0.5            | 6              | M         | G              | 20+         | Tall and narrow crown. No obvious significant defects.  | Fell to allow restoration.                                   | C1       |
| W4   | T36         | Bay            | 9          | 1               | 28          | 3.5            | 2              | 4              | 2              | 5              | M         | G              | 40+         | The crown has been pruned into a dome shape. No obvious significant defects.                                | Fell to allow restoration.                                   | B1       |
| W4   | T37         | Viburnam tinus | 5          | 2               | 7           | 1              | 2              | 1.5            | 1              | 3              | EM        | F              | 20+         | Small shrub.  | Fell to allow restoration.                                   | C1       |
| W4   | T38         | Cordyline palm | 7          | 1               | 13          | 1.5            | 0.5            | 1              | 1              | 5              | M         | G              | 20+         | Tall and narrow crown. No obvious significant defects.  | Fell to allow restoration.                                   | C1       |
| S    | T39         | Cotoneaster    | 7          | 1               | 20          | 5              | 3              | 4.5            | 3              | 2              | M         | F              | 20+         | Recent shoot growth at base and on the trunk. Large scar at 1.5m where a limb has been removed in the past. | No action required at present.                               | C1       |
| S    | T40         | Apple cv       | 8          | 1               | 29          | 5              | 5              | 5              | 4              | 2              | M         | G              | 20+         | Epicormic growth on crown stems. Central crown stem has recently died.                                      | No action required at present.                               | C1       |
| S    | T41         | False acacia   | 11         | 1               | 29          | 5              | 6              | 5              | 5              | 3              | M         | G              | 40+         | Torn branch at 6m. Minor deadwood in the crown. No obvious significant defects.                             | No action required at present.                               | B2       |
| S    | T42         | Common lime    | 8          | 1               | 35          | 3              | 3              | 3              | 3              | 4              | M         | G              | 40+         | Recent heavy crown reduction. No obvious significant defects.   | No action required at present.                               | B1       |
| S    | T43         | Cotoneaster    | 4          | 1               | 28          | 4.5            | 4.5            | 4              | 4              | 1.2            | M         | F              | 20+         | Squat crown shape. No obvious significant defects.  | Crown lift to 3m over the pathway to facilitate site access. | B1       |
| S    | T44         | Cherry         | 9          | 1               | 28          | 4.5            | 4.5            | 4.5            | 4.5            | 2              | M         | G              | 40+         | No obvious significant defects.   | No action required at present.                               | B1       |
| S    | T45         | Cherry         | 8          | 1               | 31          | 5              | 4              | 4              | 5              | 2              | M         | G              | 40+         | Surface roots. No obvious significant defects.  | No action required at present.                               | B1       |
| S    | T46         | Cotoneaster    | 4          | 1               | 28          | 4.5            | 5              | 4              | 4              | 2              | M         | F              | 20+         | Squat crown shape. No obvious significant defects.  | No action required at present.                               | B1       |
| S    | T47         | Common lime    | 13         | 1               | 48          | 3.5            | 3.5            | 3.5            | 3.5            | 5              | M         | G              | 40+         | Recent heavy crown reduction. No obvious significant defects.   | No action required at present.                               | B1       |
| S    | T48         | Rowan          | 11         | 1               | 33          | 5              | 5              | 3.5            | 4.5            | 2              | M         | G              | 10+         | Mower damage to surface roots. Nectaria canker. Small stub at 3.5m.   | No action required at present.                               | C1       |
| S    | T49         | False acacia   | 3          | 1               | 4           | 1              | 1              | 1              | 1              | 2              | Y         | G              | 40+         | Recently planted tree.  | No action required at present.                               | C1       |
| S    | T50         | Apple cv       | 9          | 1               | 26          | 4              | 4              | 3              | 4.5            | 2              | M         | G              | 40+         | No obvious significant defects.   | No action required at present.                               | C1       |

A key explaining each category is provided at the rear of the schedule

| Area | Tree Number | Tree Species              | Height (m) | Number of Stems | Stem Ø (cm) | N - Radius (m) | S - Radius (m) | E - Radius (m) | W - Radius (m) | 1st Branch (m) | Age Class | Overall Health | ULE (Years) | Tree Structural Condition & Site Notes   | Recommended Management                   | Category |
|------|-------------|---------------------------|------------|-----------------|-------------|----------------|----------------|----------------|----------------|----------------|-----------|----------------|-------------|--|--|----------|
| S    | T51         | Indian bean tree          | 15         | 1               | 40          | 5              | 3              | 1.5            | 8              | 2              | M         | G              | 20+         | Slight lean to west. It appears that the rootplate shifted in the past but has now stabilised. Past crown reduction, now with approx. 4m regrowth. | No action required at present.           | B1       |
| E5   | T52         | Chinese magnolia          | 4          | 1               | 8           | 2              | 2              | 1.5            | 2.5            | 3              | EM        | G              | 40+         | No obvious significant defects.  | No action required at present.           | C1       |
| E5   | T53         | Purple Japanese maple     | 3          | 3               | 10          | 2.5            | 2              | 2.5            | 2              | 2              | EM        | G              | 40+         | No obvious significant defects.  | No action required at present.           | C1       |
| E4   | T54         | Cordyline palm            | 8          | 1               | 14          | 0.5            | 0.5            | 0.5            | 0.5            | 7              | M         | G              | 20+         | Tall and narrow crown. No obvious significant defects.   | Fell to enable improved planting.        | C1       |
| E4   | T55         | Windmill palm             | 2.5        | 1               | 10          | 1              | 1.5            | 1              | 1.5            | 0              | M         | G              | 20+         | No obvious significant defects.  | Fell to enable improved planting.        | C1       |
| E3   | T56         | False acacia              | 5          | 1               | 6           | 1.5            | 0.5            | 0              | 1.5            | 1              | SM        | G              | 40+         | No obvious significant defects. Situated in a narrow planting area.  | Fell to facilitate air source heat pump. | C1       |
| E3   | T57         | False acacia              | 6          | 1               | 7           | 1.5            | 1              | 1              | 1              | 2              | SM        | G              | 40+         | No obvious significant defects. Situated in a narrow planting area.  | Fell to facilitate air source heat pump. | C1       |
| E3   | T58         | Holly 'Argenta Marginata' | 6          | 1               | 14          | 2              | 2              | 2              | 2              | 2              | EM        | G              | 40+         | No obvious significant defects.  | No action required at present.           | C1       |
| E3   | T59         | Holly 'Argenta Marginata' | 6          | 1               | 13          | 1.5            | 2              | 2              | 2              | 2              | EM        | G              | 40+         | No obvious significant defects.  | Fell.                                    | C1       |
| E3   | T60         | Lilac                     | 5          | 1               | 9           | 1.5            | 1              | 1              | 2.5            | 2              | EM        | G              | 40+         | No obvious significant defects.  | Fell to enable improved planting.        | C1       |
| E3   | T61         | False acacia 'Frisia'     | 12         | 1               | 15          | 3              | 4              | 3              | 3.5            | 4              | EM        | G              | 40+         | Two stems from 2m. Good overall condition.   | No action required at present.           | C1       |
| E3   | T62         | Holly 'Argenta Marginata' | 5          | 1               | 15          | 2              | 2              | 2              | 2              | 1              | EM        | G              | 40+         | No obvious significant defects.  | No action required at present.           | C1       |
| E3   | T63         | Holly 'Argenta Marginata' | 5          | 1               | 17          | 2              | 2              | 2              | 2              | 1              | EM        | G              | 40+         | No obvious significant defects.  | No action required at present.           | C1       |
| C    | T64         | Black mulberry            | 7          | 1               | 20          | 3.5            | 3.5            | 2              | 5.5            | 2              | EM        | G              | 40+         | No obvious significant defects.  | No action required at present.           | C1       |
| C    | T65         | White mulberry            | 6          | 1               | 24          | 3              | 4.5            | 4.5            | 4              | 2              | M         | G              | 40+         | Graft point at 2m. No obvious significant defects. Planted in honour of Sarah and Robert Tennyson 2007.  | No action required at present.           | A1       |
| C    | T66         | Cordyline palm            | 6          | 2               | 26          | 1              | 1              | 2              | 1              | 3              | M         | G              | 20+         | No obvious significant defects.  | Fell to allow restoration.               | C1       |
| C    | T67         | Bull bay magnolia         | 4          | MS              | 9           | 1.8            | 1.8            | 1.8            | 1.8            | 1              | M         | F              | 40+         | No obvious significant defects. Not as healthy as the opposite tree on the west side.  | No action required at present.           | C1       |

A key explaining each category is provided at the rear of the schedule

| Area | Tree Number | Tree Species     | Height (m) | Number of Stems | Stem Ø (cm) | N - Radius (m) | S - Radius (m) | E - Radius (m) | W - Radius (m) | 1st Branch (m) | Age Class | Overall Health | ULE (Years) | Tree Structural Condition & Site Notes  | Recommended Management                                       | Category  |
|------|-------------|------------------|------------|-----------------|-------------|----------------|----------------|----------------|----------------|----------------|-----------|----------------|-------------|---|--|-----------|
| NE   | T68         | Indian bean tree | 16         | 1               | 41          | 4.5            | 5.5            | 3.5            | 7.5            | 5              | M         | G              | 40+         | Scar at 2.5m from past pruning. Past crown reduction. No obvious significant defects. | No action required at present.                               | <b>B1</b> |
| E2   | T69         | Cherry           | 7          | 1               | 28          | 5              | 4              | 3              | 4.5            | 2              | M         | G              | 10+         | Restricted root area in the planting bed. Clematis in crown.                          | Crown lift to 4m over the pathway to facilitate site access. | <b>C1</b> |
| E2   | T70         | Foxglove tree    | 5          | 1               | 35          | 1              | 1.5            | 1              | 3              | 2.5            | FM        | G              | 10+         | Trunk decay. Propped at 2m. A new crown has developed from recent shoot growth.       | No action required at present.                               | <b>C1</b> |
| NE   | T71         | Indian bean tree | 15         | 1               | 42          | 6              | 6              | 3.5            | 7.5            | 3              | M         | G              | 40+         | Past crown reduction. No obvious significant defects.                                 | No action required at present.                               | <b>B1</b> |
| NE   | T72         | Foxglove tree    | 9          | 1               | 59          | 1              | 2.8            | 2              | 3.2            | 2              | FM        | G              | 10+         | Trunk cavities at 1.5m and 2.5m. Past crown reduction.                                | No action required at present.                               | <b>C1</b> |
| E1   | T73         | Hazel            | 5          | MS              | 20          | 1.5            | 2              | 1.5            | 2              | 4              | M         | G              | 40+         | Multi-stemmed coppice.  | Fell to enable improved planting.                            | <b>C1</b> |
| E1   | T74         | Juniper          | 2          | 1               | 8           | 0.5            | 2              | 2              | 0.5            | 1              | M         | G              | 40+         | Small tree with no obvious significant defects.                                       | No action required at present.                               | <b>C1</b> |
| E1   | T75         | Lilac            | 5          | 3               | 15          | 1.5            | 2.5            | 0.5            | 4              | 1              | M         | G              | 10+         | Small shrub on the rockery. The two smaller stems extend low to the west.             | Fell to allow restoration.                                   | <b>C1</b> |
| E1   | T76         | Hinoki cypress   | 4.5        | 2               | 12          | 1              | 1.5            | 1.5            | 1              | 2              | M         | G              | 40+         | Small tree with no obvious significant defects.                                       | No action required at present.                               | <b>C1</b> |
| E1   | T77         | Nikko maple      | 11         | 1               | 21          | 3              | 5              | 4.5            | 4.5            | 4              | M         | G              | 10+         | The branches are very close to the adjacent building/windows.                         | Fell to enable improved planting.                            | <b>C1</b> |
| E1   | T78         | English oak      | 2          | 1               | 15          | 2.5            | 2              | 2              | 1              | 1              | SM        | G              | 40+         | Poor location for a tree of this species. Also, poor form.                            | Fell to allow restoration.                                   | <b>C1</b> |
| E1   | T79         | Nikko maple      | 8          | 1               | 17          | 4.5            | 2              | 5              | 2              | 4              | M         | G              | 10+         | The branches are very close to the adjacent building/windows.                         | No action required at present.                               | <b>C1</b> |
| E1   | T80         | Lilac            | 4          | 3               | 27          | 3              | 1              | 1              | 6              | 3              | FM        | F              | 10+         | Small shrub on the rockery. Lean to the west.   | Fell to facilitate garden restoration.                       | <b>C1</b> |
| E1   | T81         | Lilac            | 4          | MS              | 18          | 1.5            | 3              | 0.5            | 4              | 2              | M         | F              | 10+         | Small shrub.  | Fell to facilitate garden restoration.                       | <b>C1</b> |
| E1   | T82         | Holly cv         | 8          | 2               | 18          | 2.7            | 2              | 2.5            | 3              | 2              | M         | G              | 40+         | Twin-stemmed from 0.2m. No obvious significant defects.                               | Fell to facilitate garden restoration.                       | <b>C1</b> |
| E1   | T83         | Lawson cypress   | 7          | 1               | 15          | 1              | 1.5            | 1              | 2              | 2              | EM        | G              | 40+         | Suppressed by the adjacent holly. No obvious significant defects.                     | Fell to facilitate garden restoration.                       | <b>C1</b> |

A key explaining each category is provided at the rear of the schedule

| Area | Tree Number | Tree Species          | Height (m) | Number of Stems | Stem Ø (cm) | N - Radius (m) | S - Radius (m) | E - Radius (m) | W - Radius (m) | 1st Branch (m) | Age Class | Overall Health | ULE (Years) | Tree Structural Condition & Site Notes                                       | Recommended Management  | Category |
|------|-------------|-----------------------|------------|-----------------|-------------|----------------|----------------|----------------|----------------|----------------|-----------|----------------|-------------|--|---|----------|
| E1   | T84         | Lawson cypress        | 9          | 3               | 22          | 1.5            | 1.5            | 2              | 2              | 1              | M         | G              | 20+         | Secondary stem to east originating at 1m. No obvious significant defects.    | Fell to facilitate garden restoration.                                    | C1       |
| E1   | T85         | Lawson cypress        | 7          | 1               | 10          | 0              | 1              | 0              | 2              | 1              | EM        | F              | 10+         | Crown suppressed by larger companion tree.                                   | Fell to facilitate garden restoration.                                    | C1       |
| E1   | T86         | Purple Japanese maple | 3          | MS              | 5           | 1.5            | 1.5            | 0.5            | 1.5            | 1              | SM        | G              | 40+         | Small tree with no obvious significant defects.                              | No action required at present.  | C1       |
| E1   | T87         | Lilac                 | 4          | 1               | 15          | 1              | 3              | 0              | 3.5            | 4              | FM        | P              | <10         | Recently released from being smothered by climbers. Little long-term future. | Fell to facilitate garden restoration.                                    | U        |
| E1   | T88         | Holly cv              | 5          | 1               | 16          | 2.5            | 2.5            | 2.5            | 2              | 2              | M         | G              | 40+         | No obvious significant defects.  | Fell to facilitate garden restoration.                                    | C1       |
| N    | T89         | Olive                 | 3          | MS              | 8           | 2              | 1              | 0              | 2              | 2              | M         | G              | 10+         | Suppressed by companion tree. Small tree in raised planting bed.             | Fell to enable new layout. Relocate the best 11 trees between T89 - T124. | C1       |
| N    | T90         | Olive                 | 3          | MS              | 8           | 2              | 2              | 0              | 3              | 2              | M         | G              | 10+         | Small tree in raised planting bed.   | Fell to enable new layout. Relocate the best 11 trees between T89 - T124. | C1       |
| N    | T91         | Olive                 | 3          | MS              | 8           | 1              | 2              | 0.5            | 2              | 2              | M         | G              | 10+         | Suppressed by companion tree. Small tree in raised planting bed.             | Fell to enable new layout. Relocate the best 11 trees between T89 - T124. | C1       |
| N    | T92         | Olive                 | 3          | MS              | 8           | 1              | 1              | 0              | 3              | 2              | M         | G              | 10+         | Small tree in raised planting bed.   | Fell to enable new layout. Relocate the best 11 trees between T89 - T124. | C1       |
| N    | T93         | Olive                 | 3          | MS              | 8           | 1              | 1.5            | 1              | 2              | 2              | M         | G              | 10+         | Small tree in raised planting bed.   | Fell to enable new layout. Relocate the best 11 trees between T89 - T124. | C1       |
| N    | T94         | Olive                 | 3          | MS              | 8           | 1              | 1              | 0.5            | 1.5            | 2              | M         | G              | 10+         | Small tree in raised planting bed.   | Fell to enable new layout. Relocate the best 11 trees between T89 - T124. | C1       |
| N    | T95         | Olive                 | 3          | MS              | 8           | 1              | 1              | 0.5            | 1.5            | 2              | M         | G              | 10+         | Small tree in raised planting bed.   | Fell to enable new layout. Relocate the best 11 trees between T89 - T124. | C1       |
| N    | T96         | Olive                 | 3          | MS              | 8           | 1              | 1.5            | 1.5            | 1.5            | 2              | M         | G              | 10+         | Small tree in raised planting bed.   | Fell to enable new layout. Relocate the best 11 trees between T89 - T124. | C1       |

A key explaining each category is provided at the rear of the schedule

| Area | Tree Number | Tree Species | Height (m) | Number of Stems | Stem Ø (cm) | N - Radius (m) | S - Radius (m) | E - Radius (m) | W - Radius (m) | 1st Branch (m) | Age Class | Overall Health | ULE (Years) | Tree Structural Condition & Site Notes                           | Recommended Management   | Category |
|------|-------------|--------------|------------|-----------------|-------------|----------------|----------------|----------------|----------------|----------------|-----------|----------------|-------------|--|--|----------|
| N    | T97         | Olive        | 3          | MS              | 8           | 1              | 1              | 0.5            | 2              | 2              | M         | G              | 10+         | Small tree in raised planting bed.                               | Fell to enable new layout. Re-locate the best 11 trees between T89 - T124. | C1       |
| N    | T98         | Olive        | 3          | MS              | 8           | 1              | 1              | 0.5            | 2              | 2              | M         | G              | 10+         | Small tree in raised planting bed.                               | Fell to enable new layout. Re-locate the best 11 trees between T89 - T124. | C1       |
| N    | T99         | Olive        | 3          | MS              | 8           | 1              | 1              | 0.5            | 2              | 2              | M         | G              | 10+         | Small tree in raised planting bed.                               | Fell to enable new layout. Re-locate the best 11 trees between T89 - T124. | C1       |
| N    | T100        | Olive        | 3          | MS              | 8           | 1              | 1              | 0.5            | 2              | 2              | M         | G              | 10+         | Suppressed by companion tree. Small tree in raised planting bed. | Fell to enable new layout. Re-locate the best 11 trees between T89 - T124. | C1       |
| N    | T101        | Olive        | 3          | MS              | 8           | 1              | 1              | 0.5            | 2.5            | 2              | M         | G              | 10+         | Suppressed by companion tree. Small tree in raised planting bed. | Fell to enable new layout. Re-locate the best 11 trees between T89 - T124. | C1       |
| N    | T102        | Olive        | 3          | MS              | 8           | 1              | 1              | 0.5            | 2.5            | 2              | M         | G              | 10+         | Suppressed by companion tree. Small tree in raised planting bed. | Fell to enable new layout. Re-locate the best 11 trees between T89 - T124. | C1       |
| N    | T103        | Olive        | 3          | MS              | 8           | 1              | 1              | 0.5            | 2              | 2              | M         | G              | 10+         | Small tree in raised planting bed.                               | Fell to enable new layout. Re-locate the best 11 trees between T89 - T124. | C1       |
| N    | T104        | Olive        | 3          | MS              | 8           | 2              | 1              | 1              | 2              | 2              | M         | G              | 10+         | Small tree in raised planting bed.                               | Fell to enable new layout. Re-locate the best 11 trees between T89 - T124. | C1       |
| N    | T105        | Olive        | 3          | MS              | 8           | 1              | 1              | 0.5            | 1.5            | 2              | M         | G              | 10+         | Small tree in raised planting bed.                               | Fell to enable new layout. Re-locate the best 11 trees between T89 - T124. | C1       |
| N    | T106        | Olive        | 3          | MS              | 8           | 2              | 1              | 0.5            | 1              | 2              | M         | F              | 10+         | Small tree in raised planting bed.                               | Fell to enable new layout. Re-locate the best 11 trees between T89 - T124. | C1       |
| N    | T107        | Fig          | 3          | MS              | 4           | 0.5            | 0.5            | 1              | 1              | 2              | SM        | G              | 10+         | Small tree in raised planting bed.                               | Fell to enable new layout. Re-locate the best 11 trees between T89 - T124. | C1       |

A key explaining each category is provided at the rear of the schedule



| Area | Tree Number | Tree Species | Height (m) | Number of Stems | Stem Ø (cm) | N - Radius (m) | S - Radius (m) | E - Radius (m) | W - Radius (m) | 1st Branch (m) | Age Class | Overall Health | ULE (Years) | Tree Structural Condition & Site Notes | Recommended Management  | Category |
|------|-------------|--------------|------------|-----------------|-------------|----------------|----------------|----------------|----------------|----------------|-----------|----------------|-------------|--|---|----------|
| N    | T108        | Olive        | 3          | MS              | 8           | 1.5            | 1.5            | 1.5            | 1.5            | 2              | M         | G              | 10+         | Small tree in raised planting bed.     | Fell to enable new layout. Relocate the best 11 trees between T89 - T124. | C1       |
| N    | T109        | Olive        | 3          | MS              | 8           | 2              | 1.5            | 2              | 0.5            | 2              | M         | G              | 10+         | Small tree in raised planting bed.     | Fell to enable new layout. Relocate the best 11 trees between T89 - T124. | C1       |
| N    | T110        | Olive        | 3          | MS              | 8           | 3              | 0.5            | 1              | 1              | 2              | M         | G              | 10+         | Small tree in raised planting bed.     | Fell to enable new layout. Relocate the best 11 trees between T89 - T124. | C1       |
| N    | T111        | Olive        | 3          | MS              | 8           | 2              | 0.5            | 1              | 0.5            | 2              | M         | G              | 10+         | Small tree in raised planting bed.     | Fell to enable new layout. Relocate the best 11 trees between T89 - T124. | C1       |
| N    | T112        | Olive        | 3          | MS              | 8           | 2              | 2              | 1              | 1.5            | 2              | M         | G              | 10+         | Small tree in raised planting bed.     | Fell to enable new layout. Relocate the best 11 trees between T89 - T124. | C1       |
| N    | T113        | Olive        | 3          | MS              | 8           | 2              | 1              | 2              | 1              | 2              | M         | G              | 10+         | Small tree in raised planting bed.     | Fell to enable new layout. Relocate the best 11 trees between T89 - T124. | C1       |
| N    | T114        | Olive        | 3          | MS              | 8           | 2              | 1              | 1              | 1.5            | 2              | M         | G              | 10+         | Small tree in raised planting bed.     | Fell to enable new layout. Relocate the best 11 trees between T89 - T124. | C1       |
| N    | T115        | Olive        | 3          | MS              | 8           | 2              | 1              | 1              | 1              | 2              | M         | G              | 10+         | Small tree in raised planting bed.     | Fell to enable new layout. Relocate the best 11 trees between T89 - T124. | C1       |
| N    | T116        | Olive        | 3          | MS              | 8           | 1              | 1.5            | 1.5            | 1              | 2              | M         | G              | 10+         | Small tree in raised planting bed.     | Fell to enable new layout. Relocate the best 11 trees between T89 - T124. | C1       |
| N    | T117        | Olive        | 3          | MS              | 8           | 2              | 1              | 2              | 1              | 2              | M         | G              | 10+         | Small tree in raised planting bed.     | Fell to enable new layout. Relocate the best 11 trees between T89 - T124. | C1       |
| N    | T118        | Olive        | 3          | MS              | 8           | 1.5            | 1.5            | 1.5            | 1.5            | 2              | M         | G              | 10+         | Small tree in raised planting bed.     | Fell to enable new layout. Relocate the best 11 trees between T89 - T124. | C1       |

A key explaining each category is provided at the rear of the schedule

| Area | Tree Number | Tree Species | Height (m) | Number of Stems | Stem Ø (cm) | N - Radius (m) | S - Radius (m) | E - Radius (m) | W - Radius (m) | 1st Branch (m) | Age Class | Overall Health | ULE (Years) | Tree Structural Condition & Site Notes | Recommended Management   | Category |
|------|-------------|--------------|------------|-----------------|-------------|----------------|----------------|----------------|----------------|----------------|-----------|----------------|-------------|--|--|----------|
| N    | T119        | Olive        | 3          | MS              | 8           | 2              | 1.5            | 1.5            | 1.5            | 2              | M         | G              | 10+         | Small tree in raised planting bed.     | Fell to enable new layout. Re-locate the best 11 trees between T89 - T124. | C1       |
| N    | T120        | Olive        | 3          | MS              | 8           | 2              | 1              | 2.5            | 0.5            | 2              | M         | G              | 10+         | Small tree in raised planting bed.     | Fell to enable new layout. Re-locate the best 11 trees between T89 - T124. | C1       |
| N    | T121        | Olive        | 3          | MS              | 8           | 1              | 1              | 1.5            | 0.5            | 2              | M         | G              | 10+         | Small tree in raised planting bed.     | Fell to enable new layout. Re-locate the best 11 trees between T89 - T124. | C1       |
| N    | T122        | Goat willow  | 3          | MS              | 8           | 2              | 1              | 1.5            | 0.5            | 2              | SM        | G              | 10+         | Likely to be self-sown.                | Fell to enable new layout. Re-locate the best 11 trees between T89 - T124. | C1       |
| N    | T123        | Olive        | 3          | MS              | 8           | 2.5            | 1              | 2              | 1              | 2              | M         | G              | 10+         | Small tree in raised planting bed.     | Fell to enable new layout. Re-locate the best 11 trees between T89 - T124. | C1       |
| N    | T124        | Olive        | 3          | MS              | 8           | 1.5            | 1              | 2              | 0.5            | 2              | M         | G              | 10+         | Small tree in raised planting bed.     | Fell to enable new layout. Re-locate the best 11 trees between T89 - T124. | C1       |

A key explaining each category is provided at the rear of the schedule

Appendix 1 - Group Schedule

Site: Dolphin Square Gardens

Surveyor: Ben Rose

Date of Survey: 22nd April 2021



| Area | Group Number | Tree Species   | Number in Group | Height (m) | Number of stems | Stem $\phi$ (cm) | N - Radius (m) | S - Radius (m) | E - Radius (m) | W - Radius (m) | 1st Branch | Age Class | Overall Health | ULE (Years) | Tree Structural Condition & Site Notes   | Recommended Management         | Category |
|------|--------------|----------------|-----------------|------------|-----------------|------------------|----------------|----------------|----------------|----------------|------------|-----------|----------------|-------------|--|--------------------------------|----------|
| S    | G1           | Horse chestnut | 13              | 7          | 1               | 32               | 2              | 2              | 2              | 2              | 4          | M         | G              | 40+         | The eastern side of the double avenue. Managed via cyclic reductions, all of these trees have recently been reduced. | No action required at present. | A2       |
| S    | G2           | Horse chestnut | 13              | 7          | 1               | 32               | 2              | 2              | 2              | 2              | 4          | M         | G              | 40+         | The eastern side of the double avenue. Managed via cyclic reductions, all of these trees have recently been reduced. | No action required at present. | A2       |

A key explaining each category is provided at the rear of the schedule

## Tree Schedule - KEY

### Tree/Group/Hedge Number

Tree, tree-groups or hedges have been allocated a number for the purpose of this survey. Numbers within the Tree Schedule relate to those marked on the Tree Constraints Plan and Tree Protection Plan drawings.

### Species

Common names are listed.

### Number in Group

Number of trees within a group. A group of trees may comprise of more than one species.

### Height (m)

All heights are estimated in metres.

### Number of Stems

The number of stems is either 1, 2, 3, 4, 5 or MS (multi-stemmed). This feature influences how the area of the recommended root protection area is calculated.

### Stem or Combined Diameter (cm)

Single stem diameters are measured at 1.5m with a diameter tape. The combined stem diameters for trees with up to five stems and trees with more than five stems (MS) trees are calculated in accordance with the guidance. The stem diameters are measured in accordance with Figure C.1 of BS5837:2012. All measurements in bold are estimates due to restricted access to the tree trunk.

### Crown Spread Radius (m)

The crown radius from tree trunk to crown limit identified at the four cardinal points (N, S, E and W) in order to allow presentation of the above ground constraints on the Tree Constraints Plan and Tree Protection Plan. Measurements are approximate and recorded to the nearest half metre.

All measurements depend on clear access about the crown.

### 1<sup>st</sup> Branch (m)

This is a record of the height of the lowest branch. This is useful when planning access routes or considering if pruning will be required to site new features under a tree crown.

### Age Class

(Y) Young, (SM) Semi-Mature, (EM) Early-Mature, (M) Mature, (FM) Fully-Mature or (V) Veteran.

### Overall Health

An overall assessment of the physiological condition of the tree recorded as (G) Good, (F) Fair, (P) Poor, (D) Dead.

### ULE (Years)

Useful Life Expectancy. Anticipated future contribution to amenity, in years.

### Tree Structural Condition & Site Notes

Observations on the form of the tree, condition and structural integrity.

Site notes are detailed when relevant to the growth conditions or rooting constraints.

### Management Recommendations

Recommended tree surgery works to be carried out prior to construction. Terminology used is based on guidance detailed in BS3998:2010 – Recommendations for tree work<sup>1</sup>.

### Category

Tree category as defined within BS5837:2012. Categories A (high quality), B (moderate quality) and C (low quality) are trees that should be considered for retention. Category U trees are unsuitable for retention.

<sup>1</sup> British Standards Institution (2010). BS3998 - Recommendations for Tree Work. BSI, London.

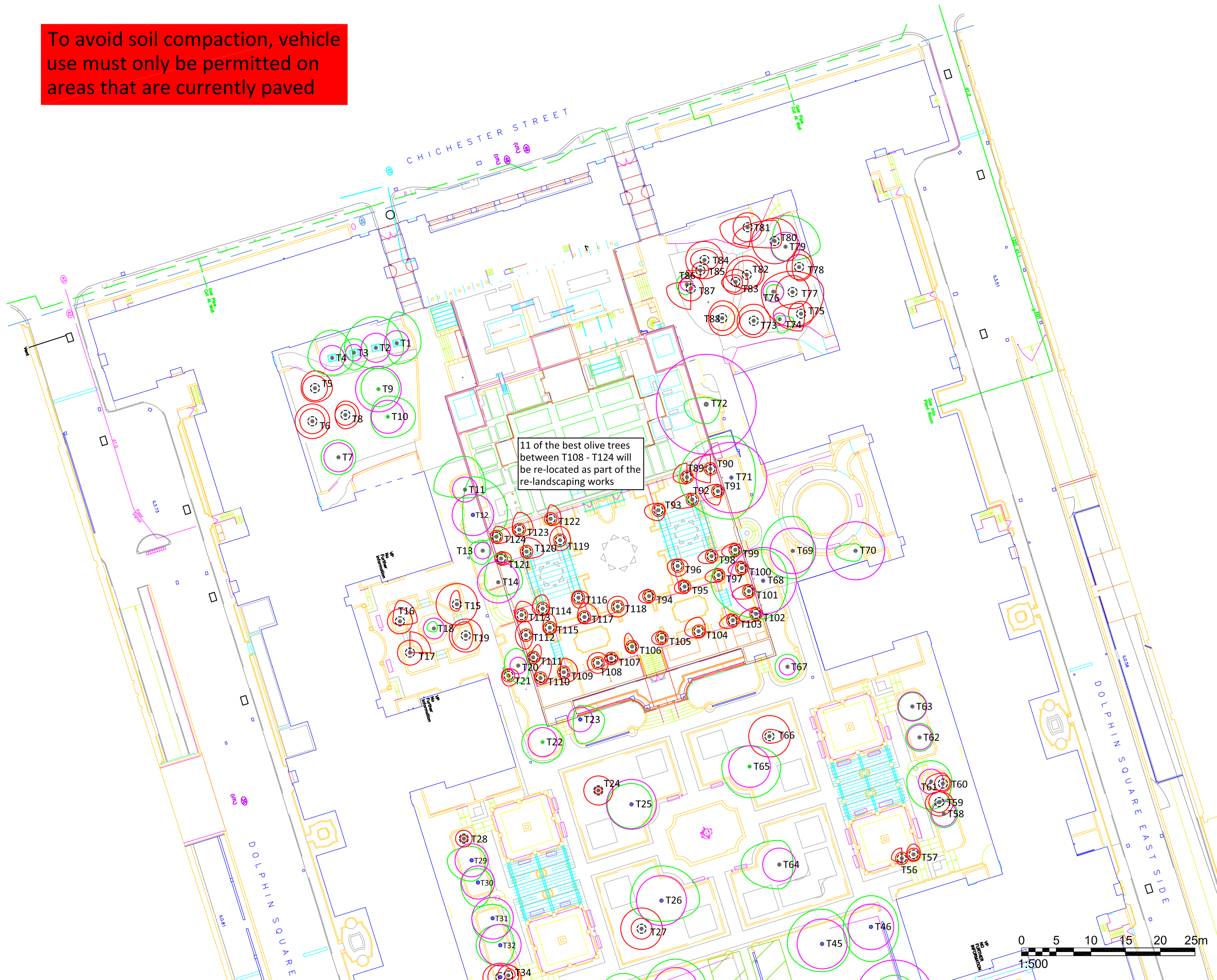
## Summary of Tree Removals at Dolphin Square

**Table A: The 72 trees that are scheduled for removal.**

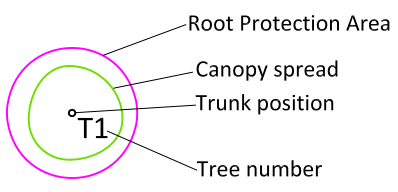
| Tree/Group number | Species                   | Stem Ø (mm) | BS5837 Category |
|-------------------|---------------------------|-------------|-----------------|
| T5                | Holly 'Argenta Marginata' | 156         | C1              |
| T6                | Holly 'Argenta Marginata' | 157         | C1              |
| T8                | Holly 'Argenta Marginata' | 122         | C1              |
| T15               | Cordyline palm            | 241         | C1              |
| T16               | Cordyline palm            | 150         | C1              |
| T17               | Cordyline palm            | 160         | C1              |
| T19               | Cordyline palm            | 189         | C1              |
| T21               | Cherry                    | 73          | U               |
| T24               | Cordyline palm            | 176         | C1              |
| T27               | Cordyline palm            | 238         | C1              |
| T28               | Cordyline palm            | 90          | C1              |
| T33               | Bay                       | 160         | B1              |
| T34               | Cordyline palm            | 125         | C1              |
| T35               | Cordyline palm            | 116         | C1              |
| T36               | Bay                       | 278         | B1              |
| T37               | Viburnum tinus            | 69          | C1              |
| T38               | Cordyline palm            | 130         | C1              |
| T54               | Cordyline palm            | 144         | C1              |
| T55               | Windmill palm             | 100         | C1              |
| T56               | False acacia              | 63          | C1              |
| T57               | False acacia              | 70          | C1              |
| T59               | Holly 'Argenta Marginata' | 128         | C1              |
| T60               | Lilac                     | 87          | C1              |
| T66               | Cordyline palm            | 256         | C1              |
| T73               | Hazel                     | 200         | C1              |
| T75               | Lilac                     | 150         | C1              |
| T77               | Nikko maple               | 210         | C1              |
| T78               | English oak               | 150         | C1              |
| T80               | Lilac                     | 270         | C1              |
| T81               | Lilac                     | 180         | C1              |
| T82               | Holly cv                  | 180         | C1              |
| T83               | Lawson cypress            | 148         | C1              |
| T84               | Lawson cypress            | 219         | C1              |
| T85               | Lawson cypress            | 97          | C1              |
| T87               | Lilac                     | 146         | U               |
| T88               | Holly cv                  | 162         | C1              |
| T89               | Olive                     | 80          | C1              |
| T90               | Olive                     | 80          | C1              |

|      |             |    |    |
|------|-------------|----|----|
| T91  | Olive       | 80 | C1 |
| T92  | Olive       | 80 | C1 |
| T93  | Olive       | 80 | C1 |
| T94  | Olive       | 80 | C1 |
| T95  | Olive       | 80 | C1 |
| T96  | Olive       | 80 | C1 |
| T97  | Olive       | 80 | C1 |
| T98  | Olive       | 80 | C1 |
| T99  | Olive       | 80 | C1 |
| T100 | Olive       | 80 | C1 |
| T101 | Olive       | 80 | C1 |
| T102 | Olive       | 80 | C1 |
| T103 | Olive       | 80 | C1 |
| T104 | Olive       | 80 | C1 |
| T105 | Olive       | 80 | C1 |
| T106 | Olive       | 80 | C1 |
| T107 | Fig         | 41 | C1 |
| T108 | Olive       | 80 | C1 |
| T109 | Olive       | 80 | C1 |
| T110 | Olive       | 80 | C1 |
| T111 | Olive       | 80 | C1 |
| T112 | Olive       | 80 | C1 |
| T113 | Olive       | 80 | C1 |
| T114 | Olive       | 80 | C1 |
| T115 | Olive       | 80 | C1 |
| T116 | Olive       | 80 | C1 |
| T117 | Olive       | 80 | C1 |
| T118 | Olive       | 80 | C1 |
| T119 | Olive       | 80 | C1 |
| T120 | Olive       | 80 | C1 |
| T121 | Olive       | 80 | C1 |
| T122 | Goat willow | 80 | C1 |
| T123 | Olive       | 80 | C1 |
| T124 | Olive       | 80 | C1 |

To avoid soil compaction, vehicle use must only be permitted on areas that are currently paved



**Key**



- Tree group canopy outline
- Hedge line
- Trees scheduled for removal

**BS5837:2012 - Tree Category**

- Category A Trees**  
High quality and value  
At least 40 years life-expectancy
- Category B Trees**  
Moderate quality and value  
At least 20 years life-expectancy
- Category C Trees**  
Moderate quality and value  
At least 10 years life-expectancy
- Category U Trees**  
Poor quality and value  
Less than 10 years life expectancy



Rook Lane House  
Christchurch Street West  
Frome, BA11 1EB  
info@boskytrees.co.uk  
Tel: 01373 832778

Project Name:  
**Dolphin Square  
Project Future**

Drawing Title:  
**Tree Protection Plan  
North**

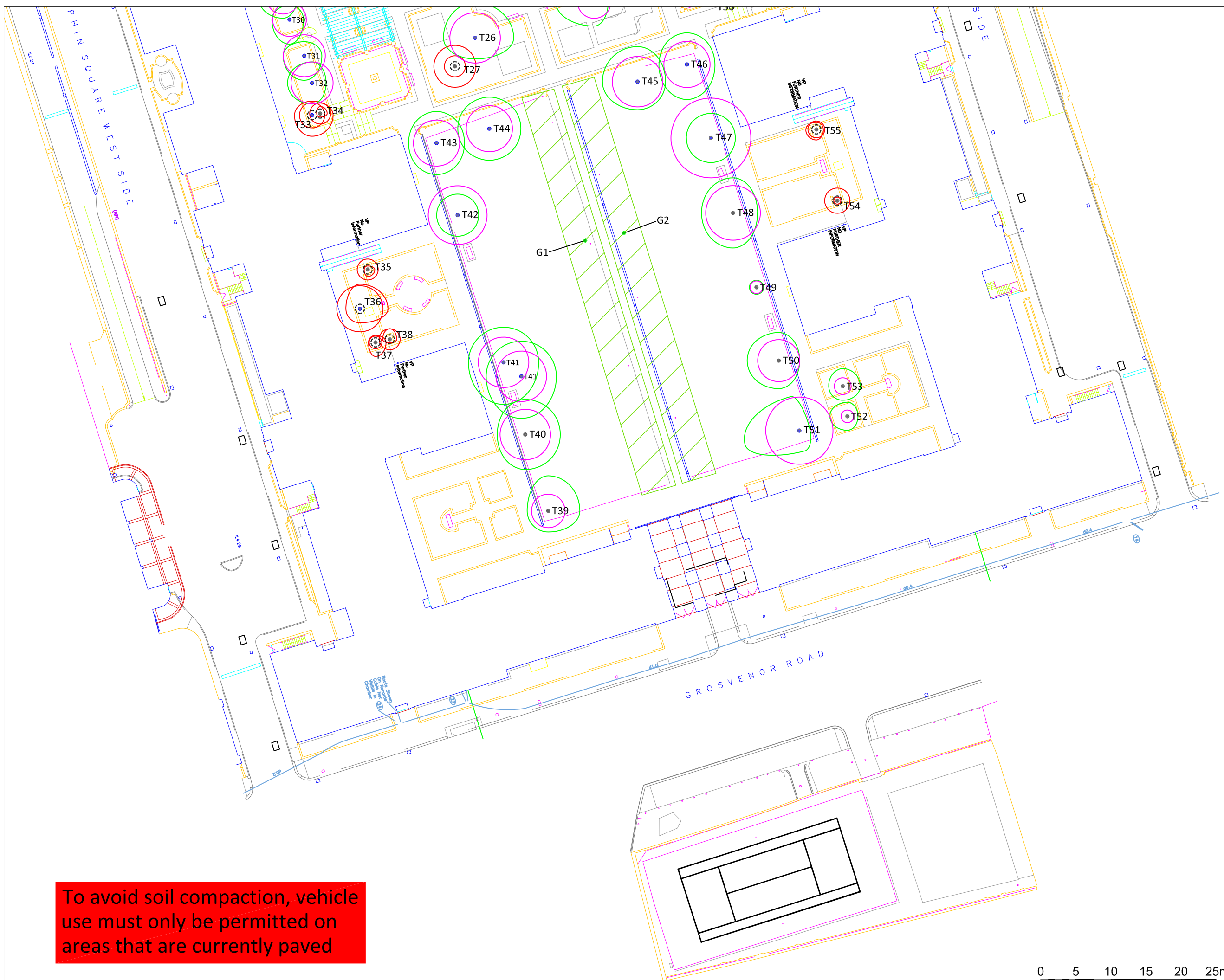
|                                 |          |
|---------------------------------|----------|
| Drawing Number:<br><b>TPP-1</b> | Revision |
|---------------------------------|----------|

Client:  
**Dolphin Square Ltd**

Agent:

Date:  
**2-11-2021**

Scale:  
**1:500 @ A3**



To avoid soil compaction, vehicle use must only be permitted on areas that are currently paved



**Key**

- Root Protection Area
- Canopy spread
- Trunk position
- Tree number
- Tree group canopy outline
- Hedge line
- Trees scheduled for removal

**BS5837:2012 - Tree Category**

- Category A Trees**  
High quality and value  
At least 40 years life-expectancy
- Category B Trees**  
Moderate quality and value  
At least 20 years life-expectancy
- Category C Trees**  
Moderate quality and value  
At least 10 years life-expectancy
- Category U Trees**  
Poor quality and value  
Less than 10 years life expectancy



Rook Lane House  
Christchurch Street West  
Frome, BA11 1EB  
  
info@boskytrees.co.uk  
Tel: 01373 832778

Project Name:  
**Dolphin Square  
Project Future**

Drawing Title:  
**Tree Protection Plan  
South**

|                                 |          |
|---------------------------------|----------|
| Drawing Number:<br><b>TPP-2</b> | Revision |
|---------------------------------|----------|

Client:  
**Dolphin Square Ltd**

Agent:

Date:  
**2-11-2021**

Scale:  
**1:500 @ A3**

