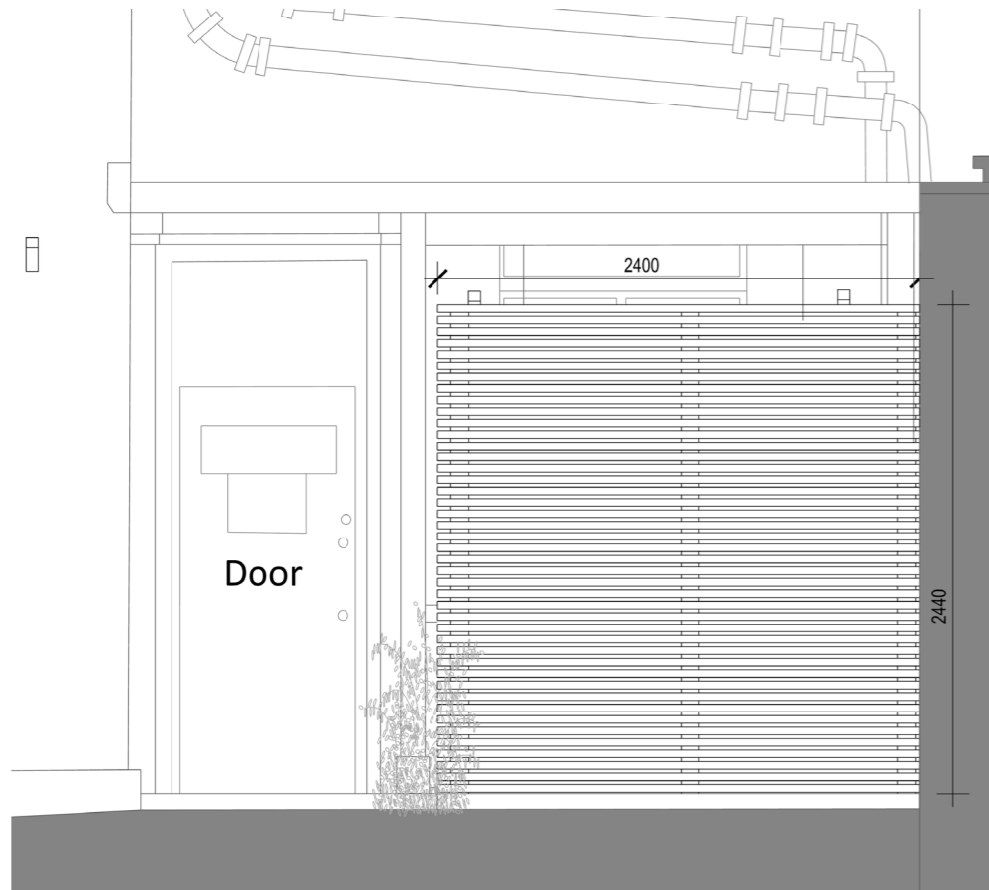
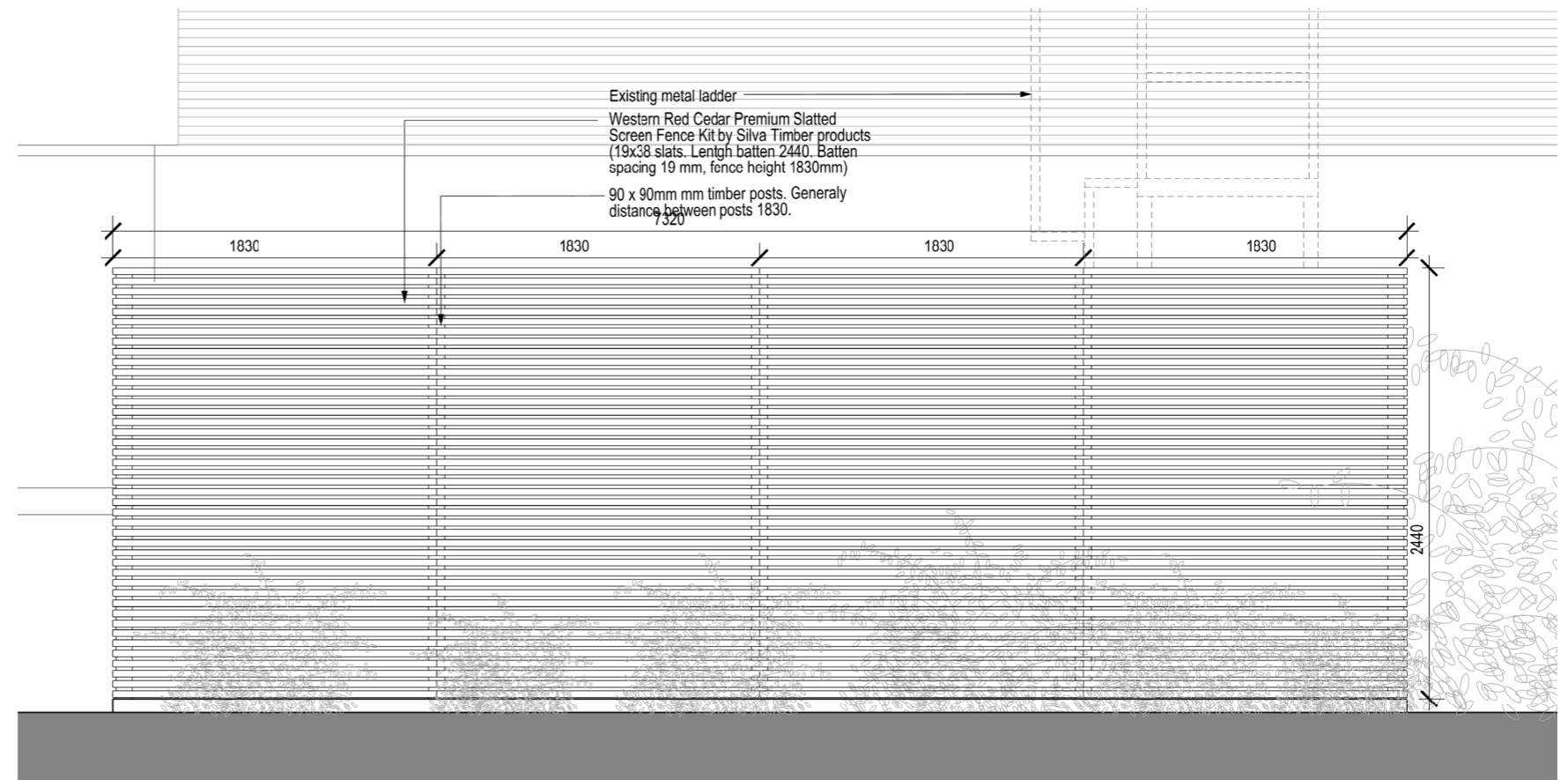


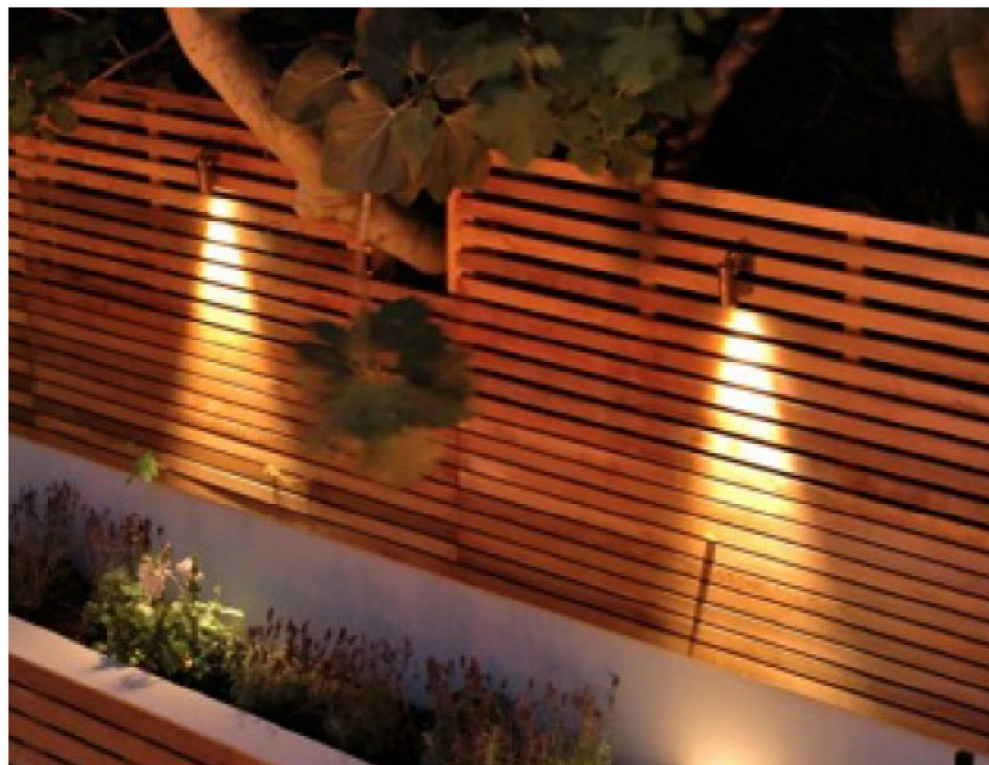
1 MS PROPOSED EXTERNAL PLANT ENCLOSURE DETAIL



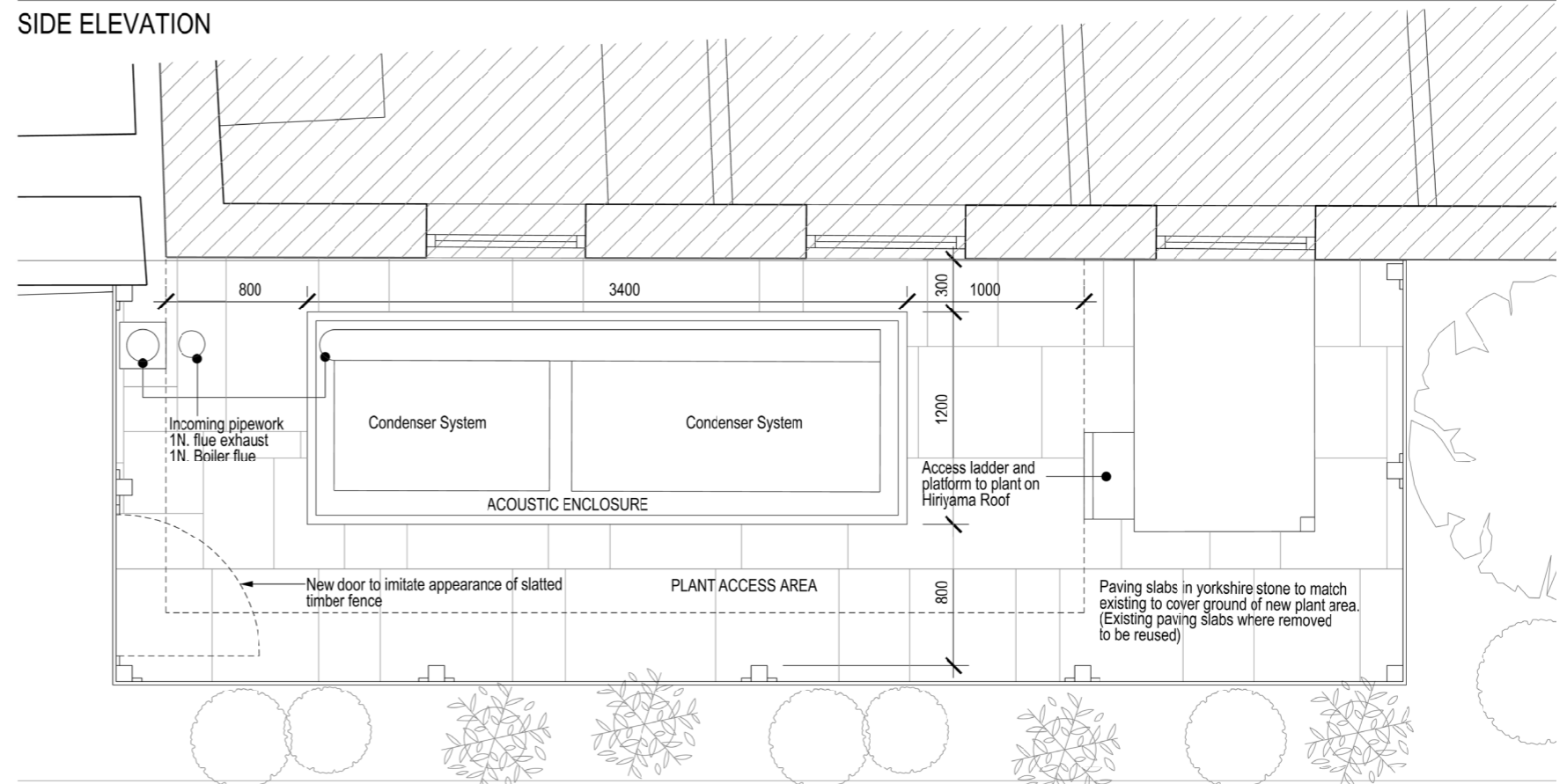
FRONT ELEVATION



SIDE ELEVATION



PRECEDENT IMAGE



PLAN

Appendices

- a Arboricultural Report



Site:

The British Museum
43 Great Russell Street
London
WC1B 3DG

Client:

Flora-tec Ltd

Report Produced by:

Leo Hawkes BSc (Hons)
Arboricultural Consultant

Contractor Address:

Salcey Group Ltd
Unit 2 Silverstone Business Park
Shacks Barn Farm
Nr Silverstone
Northamptonshire
NN12 8TB

Enclosed:

Tree Condition Survey
Tree Data Table
Site Plan

Job No.

34729

Inspection Date:

1st June 2016

Contents

- 1) Executive Summary
- 2) Brief
- 3) Report Objectives
- 4) Report Constraints
- 5) Legal
- 6) Methodology
- 7) Site Visit
- 8) Non Arboricultural Comments
- 9) Visual Observations
- 10) Recommendations
- 11) Conclusion
- 12) Glossary of Terms
- 13) Appendices

1. Executive Summary

- 1.1** The Tree Condition Survey was commissioned by Flora-tec Ltd.
- 1.2** A site visit was carried out by the author on the 1st June 2016. The weather was varied from bright and clear to overcast enabling a sufficient view of the trees.
- 1.3** Overall the trees on site are in varying conditions, the majority are in good to fair condition, but some are poorer and require further investigation. Predominantly requiring decay detection and others basic remedial works such as removal of tree stakes.

2. Brief

- 2.1** Salcey Group Ltd has been instructed by Flora-tec Ltd to carry out a non-invasive, ground level Tree Condition Survey of all trees within the marked area (Appendix 2, Site plan) on the grounds of The British Museum, 43 Great Russell Street, London WC1B 3DG.

3. Report Objectives

- 3.1** The objectives of the report are as follows:
- To assess the health and condition of the trees on site via a ground level Visual Tree Assessment (VTA).
 - Identify and prioritise any maintenance works which might be necessary to remove risk to public safety and property.
 - Identify works necessary to promote the longevity of the trees on site.

4. Report Constraints

- 4.1** The assessments of tree health that were carried out and reported are a snapshot of health and condition at the time of the assessment. They represent observations made following an external assessment of symptoms from ground level, no invasive tools or machinery will have been used during the assessment.
- 4.2** Trees are living organisms and their condition may have changed on completion of the site visit for a variety of reasons, including but not limited to:
- as a natural consequence of their pattern of growth, and/or
 - in response to the changes in neighbouring plants, from whatever cause, and/or
 - in response to the weather, either an extreme weather event or a prolonged spell of consistent weather, and/or
 - as a consequence of infection or infestation, and/or
 - as a consequence of a pollution incident, and/or

- in response to changes in soil condition or structure.

4.3 The conclusions, and any recommendations following from those stated within this report, relate to the conditions found at the time of the assessment. The conclusions are valid for a period of no more than three years from the date that the site was surveyed, or

- until such time as any work is carried out at the site, either in accordance with the remedial action prescribed or for other reasons which may be outside the authors control such as those stated in section 4.2, or
- until the site is re-surveyed, whichever is sooner.

5. Legal

5.1 For the purposes of this report it has not been confirmed if the trees are subject to Tree Preservation Orders or if the site falls within a Conservation Area. Before any remedial works are carried out, these checks must be carried out with the Local Planning Authority.

6. Methodology

6.1. All observations were from ground level without invasive investigations. Measurements were taken using a diameter tape, a sounding mallet and a laser measure where necessary. Height was estimated by eye but on sites where it is an essential measurement, a digital clinometer is used.

7. Site Visit

7.1 Leo Hawkes, Arboricultural Consultant who holds the formal qualifications BSc (Hons) Arboriculture and the LANTRA Professional Tree Inspection undertook the data collection and assessment of the trees on site.

8. Non Arboricultural Comments

8.1 The data collected and advice provided within this report is supplied in the interests of sound arboricultural management. As such it should be clearly understood that Salcey Group Ltd are arboricultural experts, and therefore not qualified to provide detailed comment on structural or geotechnical matters. In the event that the advice received does not allow the evaluation of the risks for the relevant purposes, then it is strongly advised that a structural or geotechnical expert is contacted for further comment on buildings or soils. The buildings inspector of the relevant local authority might be a good point of first contact in this respect.

8.2 This report is a best assessment of the trees and their setting at the time of inspection, as such any subsequent building works or changes to land form in the proximity of the trees could invalidate the advice given.

9. Visual Observations and Discussion

These comments should be read in conjunction with the site plan and tree data table where a full list of observations of individual trees can be found. This section provides a more comprehensive analysis of trees with visible concerns that require remedial works or features that merit explaining in greater detail. Details of the data collected are as follows:

9.1 The survey identified and recorded a total of 10 individual trees and 2 groups located within the marked survey area, some of which are in publically accessible areas requiring evaluating for structural and public safety concerns.

1.4 The majority of the trees on site are in good to fair condition, but some are poorer and require further investigation. Predominantly requiring decay detection and others basic remedial works such as removal of tree stakes.

10. Recommendations

The priority ratings for the recommended works are determined by several factors; namely the condition of the tree, the likelihood of any parts failing, the size of the parts that may fail and the target that the parts may affect. To alleviate the identified safety concerns, recommended works are prioritised as follows;

- Urgent** - Urgent works to be undertaken within 30 days from submission of this report or sooner if stated.
- Priority 1** - Works to be completed within 6 months.
- Priority 2** - Works to be completed within 6 to 12 months.
- Priority 3** - Works to be completed within 12 to 24 months

10.1 Were necessary, higher priority and technical remedial works are explained in greater detail within this section. A full list of recommendations can additionally be found in the attached Tree Data Table (Appendix 1). Recommendations are as follows;

10.2 The following individual trees require **Priority 1** investigative remedial works in order to determine the structural integrity.

| | |
|----------|----------|
| T1 (507) | T3 (508) |
|----------|----------|

10.2 The following group of trees require **Priority 3** investigative remedial works in order to determine the structural integrity.

| |
|----|
| G2 |
|----|

11. Conclusion

11.1 Whilst all reasonable precautions have been taken to ascertain the condition of the trees on site, inevitably, the trees will age and conditions will change over time. To maintain up to date records of tree health and to sustain a safe stock of trees that provide both environmental benefits and amenity to their locality, it is advisable that the times stated in the Tree Data Table for the periodic re-inspections are adhered to.

11.2 It is recommended that the remedial action prescribed should be carried out within the times stated to ensure the removal of risk to public safety and damage to property.

11.3 All tree works should be carried out to British Standards for tree works BS 3998:2010 Tree Work Recommendation.

12. Glossary of Terms

Target

For the purpose of this report the term target is used as defined in British Standard 3998:2010. A target is a person or object, whether mobile or fixed, within the potential zone of impact of a tree or its branches, which might be harmed as a result of the partial or total failure of the tree.

13. Appendices

Appendix 1 Tree Data Table

Appendix 2 Site Plan

Appendix 1

Tree Data Table

Page 10 of 14

| Tree Data Table – Tree Condition Survey | | | | | | Site: The British Museum, 43 Great Russell Street, London | | | | |
|---|---|---------------|-------------|---------------------|----------------------------|---|---|--|----------------|-------------------|
| Tree/ group No. (Tag no.) | Species (Common name) | Height (m) | DBH (mm) | Age Class | Physiological Condition | Structural Condition | Observations | Recommendations | Re- inspect | Works Priority |
| T1 | <i>Platanus x acerifolia</i> (London Plane) | 15 | 1000 | Mature | Fair - Normal | Fair | Unidentified degraded fungal fruiting body at base to north-east with bark necrosis, minor insignificant deadwood present | Carry out further inspection with the use of a Resistograph® decay detection drill to determine structural integrity | 3 years | 1 |
| T2 | <i>Laurus nobilis</i> (Bay tree) | 7 | 360 | Mature | Normal | Fair | Slight bias with stem lean to south, previously pruned on east for access | No works required at present | 3 years | N/A |
| T3 | <i>Platanus x acerifolia</i> (London Plane) | 15 | 1060 | Mature | Normal | Good / Fair | Bark necrosis on north-west at base up to 1.5m, previously pollarded at 7.5m – regrown crown since | Carry out further inspection with the use of a Resistograph® decay detection drill to determine structural integrity | 3 years | 1 |
| T4 | <i>Platanus x acerifolia</i> (London Plane) | 18 | 1150 | Mature | Normal | Good | Located within newly constructed courtyard situated 3m below normal ground level, previously pollarded at 10m – regrown crown since, previously more recently reduced | No works required at present | 3 years | N/A |
| T5 | <i>Aesculus hippocastanum</i> (Horse Chestnut) | 14 | 780 | Mature | Normal | Good | Highly restricted rootspace, epicormic shoots within inner crown, previously reduced, main stem leans to south-west | No works required at present | 3 years | N/A |
| T6 | <i>Prunus</i> sp. (Flowering Cherry) | 4 | 50 | Young – Semi-mature | Normal | Good | Established young tree, shaded / stunted by adjacent 'T5' | No works required at present | 3 years | N/A |
| T7 | <i>Robinia pseudoacacia</i> (False Acacia) | 15 | 470 | Mature | Low – Normal | Fair -Good | Stem lean to east, sparse upper crown, minor epicormic shoots on stem, previously reduced | No works required at present | 3 years | N/A |
| T8 | <i>Robinia pseudoacacia</i> (False Acacia) | 14 | 530 | Mature | Low – Normal | Fair – Good | Stem lean to south-west, sparse upper crown, minor deadwood present in upper crown – no target | No works required at present | 3 years | N/A |

| Tree/ group No. (Tag no.) | Species (Common name) | Height (m) | DBH (mm) | Age Class | Physiological Condition | Structural Condition | Observations | Recommendations | Re- inspect | Works Priority |
|---------------------------------------|---|---------------|-------------|------------------|----------------------------|-------------------------|--|------------------------------|----------------|-------------------|
| T9 | <i>Tilia x europaea</i> (Common Lime) | 15 | 420 | Early- mature | Normal | Good | Basal and stem epicormic shoots, previously reduced, congested crown | No works required at present | 3 years | N/A |
| T10 | <i>Fraxinus excelsior</i> (Common Ash) | 16 | 520 | Mature | Normal | Poor / Fair | Previously topped at 8m, restricted root space, previously reduced, sparse upper crown | No works required at present | 3 years | N/A |
| G1 | <i>17no. Betula utilis</i> var. <i>jacquemontii</i> (Himalayan Birch) | <6 | Avg. 80 | Newly planted | Normal | Good | 17 newly planted Himalayan Birch – no concerns | No works required at present | 3 years | N/A |
| G2 | <i>14no. Zelkova</i> <i>serrata</i> . (Zelkova tree) | <4 | Avg. 60 | Newly planted | Normal | Good | 14 newly established Zelkova trees, tree support stakes still remain, established well | Remove tree support stakes | 3 years | 3 |

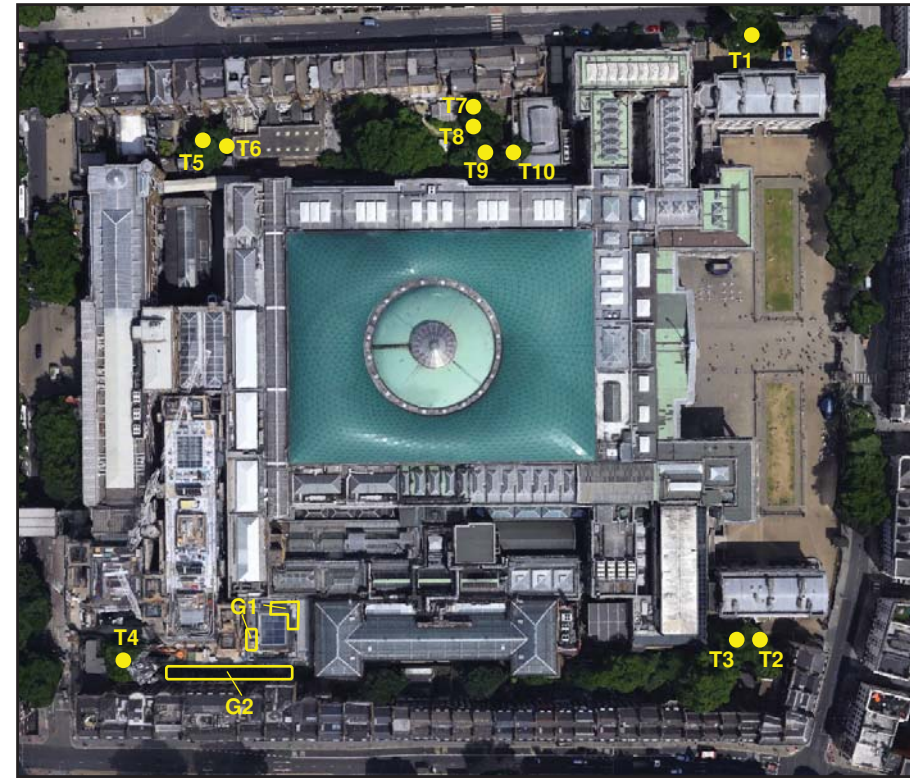
Tree Data Table Key:



| | |
|-------------------------------------|---|
| Height | Either estimated or measured with the use of a clinometer from ground level and shown in metres. |
| DBH | Diameter at Breast Height – Stem diameter measured at 1.5 metres from ground level. |
| Crown Spread | Measured in metres at four cardinal points. |
| Age Class | NP Newly Planted – Tree still requires additional support to prevent from failing. |
| | Y Young - Within the first third of life expectancy for species. |
| | MA Middle Aged - Within the second third of life expectancy for species. |
| | M Mature - Within the last third of life expectancy for species. |
| | OM Over Mature – Beyond the normal life expectancy for species and showing signs of natural decline. |
| Physiological Condition | V Veteran - An age that is old relative to others of the same species with extensive decay or hollowing of central wood. Additionally, the tree possesses exceptional cultural, landscape and/or nature conservation value. |
| | N Normal - Free from fungal, bacteria and insect infections/infestations and with normal vigour and ability to resist pathogens |
| | F Fair - Showing low vitality that is reversible and/or the early presence of fungal or bacterial infection. |
| Structural Condition | P Poor - Tree in irreversible decline due to fungal, bacteria and/or insect infections or infestation. |
| | G Good - Free from significant structural defects, i.e. broken, torn, cracked and/or included branches |
| | F Fair - Showing significant defects that may need to be remediated by the removal or reduction of damaged branches |
| Work Priority | P Poor - Showing significant structural defects that require substantial works or removal |
| | U Urgent - Recommended works should be undertaken within 30 days or sooner if stated. |
| | 1 1 - Recommended works should be carried out within 6 months |
| | 2 2 - Recommended works should be carried out within 12 months |
| | 3 3 - Recommended works should be carried out within 12 to 24 months |
| | N/A N/A - Not Applicable (No works required at present) |
| Specific Defect Terms key: | |
| Significant dead wood | Dead branch or branches greater in length than 1 metre in length and/or 50mm in diameter. |
| Insignificant dead wood | Dead branch or branches less than 1 metre in length and/or smaller than 50mm in diameter. |
| Defect location measurements | Location of defect given in metres and detailed in relation to centre of main stem at ground level. |

Appendix 2

Site Plan

Appendix 2
Site Plan



| | | | | |
|---|---------------------------------|--|--------------------------------------|--|
|  | Client: Flora-tec Ltd | Site: The British Museum, 43 Great Russell Street, London | Key: ● - Tree □ - Group | North:  |
|---|---------------------------------|--|--------------------------------------|--|