

AIA

# ARBORICULTURAL IMPACT ASSESSMENT

(INC. TREE SURVEY TO BS 5837:2012)



PROJECT - Westerfield Road Car Park, Tottenham

CLIENT - Dalcour MacLaren

DOC. REF - P3694-AIA01 V1

PLANNING REF - n/a

CREATION DATE - 19/03/2024

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## PURPOSE OF DOCUMENT

This document assesses the anticipated impact that the proposed scheme will have on the surrounding tree population, and outlines possible technical design considerations and mitigation measures that should be implemented in order to minimise the overall arboricultural impact.

## ARBORICULTURAL DOCUMENT REGISTER

| Planning Documents        |             | Version Issued  |               |
|---------------------------|-------------|-----------------|---------------|
| Document                  | Ref.        | Current Version | Document Date |
| Arb. Impact Assessment    | P3694-AIA01 | V1              | 19/03/2024    |
| Arb. Site Plan (Existing) | P3694-ASP01 | V1              | 19/03/2024    |
| Arb. Site Plan (Proposed) | P3694-ASP02 | V1              | 19/03/2024    |

## 1. SUMMARY

### 1.1 PROPOSED DEVELOPMENT

- 1.1.1 The client is proposing to install a new gas governor and kiosk on the land adjacent to Westerfield Road car park, Tottenham.

### 1.2 TREE SURVEY

- 1.2.1 The following woody vegetation was considered to be of note in relation to any development of the site: 1 individual tree.

### 1.3 MITIGATION AND PROTECTION MEASURES

- 1.3.1 The required arboricultural mitigation measures can be found in *Section 3* of this report.

### 1.4 CONCLUSION

- 1.4.1 The table below summarises the trees which will be lost, pruned, or protected by special measures during the development project.

|                                                                               | Tree Category |   |   |   |       |
|-------------------------------------------------------------------------------|---------------|---|---|---|-------|
|                                                                               | A             | B | C | U | Total |
| Trees to be removed                                                           | -             | - | - | - | -     |
| Groups to be removed                                                          | -             | - | - | - | -     |
| Other Vegetation to be removed                                                | -             | - | - | - | -     |
| Groups / Hedges to have sections removed                                      | -             | - | - | - | -     |
| Trees to be pruned                                                            | -             | 1 | - | - | -     |
| Site clearance                                                                | -             | - | - | - | -     |
| Routing and installation of utility apparatus                                 | -             | - | - | - | -     |
| Instances of trees being affected by the installation of buildings/structures | -             | 1 | - | - | -     |
| Instances of trees being affected by the installation of surfacing            | -             | 1 | - | - | -     |
| Number of new tree plantings                                                  | -             | - | - | - | -     |

- 1.4.2 Considering the anticipated arboricultural impact from the construction activities associated with the development of the site, and the implementation of the proposed mitigation measures outlined in this document, the proposed development's arboricultural impact is considered to be **acceptable**.

## 2 GENERAL INFORMATION

### 2.1 BRIEF

- 2.1.1 Ligna Consultancy Ltd were instructed by Dalcour MacLaren on behalf of the client, to undertake a tree survey in accordance with BS 5837:2012 and to prepare an arboricultural impact assessment for the proposed scheme at Westerfield Road Car Park, Tottenham.

### 2.2 PROPOSED DEVELOPMENT

- 2.2.1 The client is proposing to install a new gas governor and kiosk on the land adjacent to Westerfield Road car park, Tottenham.

### 2.3 SITE

- 2.3.1 The site discussed within this report is located at:

Westerfield Road Car Park, Westerfield Road, Tottenham Green, London, N15 5LD

### 2.4 SCOPE OF REPORT

- 2.4.1 This report consists of the following:

- Appraisal of arboricultural impact
- Outline of tree protection & mitigation measures

- 2.4.2 Appendices included with this report are:

- Tree Survey
- Site Photos
- Arboricultural Site Plan (Existing) (P3694-ASP01 V1)
- Arboricultural Site Plan (Proposed) (P3694-ASP02 V1)

### 2.5 DOCUMENTS PROVIDED

- 2.5.1 The following documents were submitted to Ligna Consultancy Ltd for consideration:

- Broad Lane Governor Installation – Proposed MP/LP Governor

### 2.6 PROJECT CONTACT

| Role                      | Name         | Telephone    | Email                                                                                |
|---------------------------|--------------|--------------|--------------------------------------------------------------------------------------|
| Arboricultural Consultant | Ben Hallinan | 01284 598008 | <a href="mailto:benjamin@lignaconsultancy.co.uk">benjamin@lignaconsultancy.co.uk</a> |

## 2.7 AUTHOR

- 2.7.1 Jake Duthie is a tree inspector with 9 years of experience in the arboricultural industry. He has extensive practical experience in tree surgery, including for high profile sites such as the Tower of London and Hampton Court Palace. He has worked as a tree inspector for Merton Borough Council, inspecting and ordering works on a large tree stock in high target areas. He has a level 4 advanced diploma in arboriculture and LANTRA Professional Tree Inspection training.

## 2.8 LIMITATIONS

- 2.8.1 Detailed inspections and recommendations relating to tree condition and health are not included within this report.
- 2.8.2 Any engineering solutions presented within this document are recommendations for their suitability from an arboricultural viewpoint. The architect and structural engineers should make the final decision on the suitability of the methods advised.
- 2.8.3 Information provided by third parties, considered in the creation of this report, is assumed to be correct.

## 2.9 PROTECTED TREES

- 2.9.1 Details of trees (if any) that are protected by Tree Preservation Orders (TPOs) or are situated within Conservation Area are available upon request.
- 2.9.2 It is the standard approach of Ligna Consultancy not to obtain this information from the LPA prior to an application, as the LPA will provide details of nearby protected trees as part of the consultation.
- 2.9.3 It should also be noted that granted planning permission that includes tree work specifications overrides Tree Preservation Orders and Conservation Area protections (approved works only).

## 2.10 NESTING BIRDS / BATS

- 2.10.1 Officially, the 'Bird Nesting Season' is between February and August (Natural England). During this time, it is recommended that vegetation works (tree or hedge cutting) or site clearance is avoided if there is a reasonable potential for the disruption of nesting birds.
- 2.10.2 All parties involved in the management and/or development of a site must actively avoid causing disturbance and disruption to nesting birds. Failure to do this may result in an infringement of the *Wildlife and Countryside Act 1981* and the *European Habitats Directive 1992 / Nesting Birds Directive*.
- 2.10.3 When tree or vegetation clearance work has to be undertaken during the nesting season, a pre works survey needs to be carried out by a suitably competent person.
- 2.10.4 All bats and their roosts are protected by domestic and international legislation. They are protected by the *Wildlife and Countryside Act 1981* (as amended) and the *Conservation of Habitats and Species Regulations (2017 –*

as amended). This means you may be committing a criminal offence if you: Deliberately take, injure or kill a wild bat; Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats; Damage or destroy a place used by bats for breeding or resting (roosts) (even if bats are not occupying the roost at the time); Intentionally or recklessly obstruct access to a bat roost.

2.10.5 Prior to carrying out any tree works it is recommended that a survey of the tree/ trees is carried out to confirm whether there are any nesting birds or bat roosts. This should be carried out by a suitably trained person.

## 2.11 SUMMARY OF TERMS

| Term                    | Definition                                                                                                                                                                                                                                                                  |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Species                 | The type of tree.                                                                                                                                                                                                                                                           |
| Stem                    | The main woody upright portion of a tree that is supported by the roots and supports the crown.                                                                                                                                                                             |
| Branch Spread           | The length of a tree's branches from stem to tip measured from the north, east, south and western sides of the crown.                                                                                                                                                       |
| BS 5837                 | The commonly used name for the official guidance document relating to trees and development ( <i>BS 5837:2012 - Trees in relation to design, demolition and construction – Recommendations</i> )                                                                            |
| Canopy / Crown          | The branches, leaves, and reproductive structures extending from the trunk or main stems of a tree/trees.                                                                                                                                                                   |
| DBH                     | Diameter of a tree's stem, measured as per BS 5837:2012                                                                                                                                                                                                                     |
| RPA                     | 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 the roots and soil structure is treated as a priority. |
| Facilitation Tree Works | Tree pruning/felling required in order to facilitate the implementation of the proposed development.                                                                                                                                                                        |
| Tolerance               | The relative tolerance the species can show to construction related activities such as root-loss, soil compaction and other development pressures.                                                                                                                          |
| Category (Cat.)         | Categorisation of the tree's value based on the methodology shown in Appendix 1, A1.4. This rating takes into account the size, quality, condition, estimated remaining life expectancy and legal status of each tree.                                                      |

## 2.12 COPYRIGHT

2.12.1 This report was prepared for use by the Clients and their contractors for planning purposes. The report and its appendices may not be copied, modified, or distributed beyond the necessary parties without the written consent of Ligna Consultancy Ltd.

### 3 ARBORICULTURAL IMPACT ASSESSMENT

#### ASSESSMENT & APPRAISAL OF IMPACTS

The following section lists and discusses any aspects of the proposed design and its implementation that has the potential to harm nearby trees, and outlines possible mitigation measures:

If approved, the mitigation measures outlined below should be detailed within a Tree Protection Scheme (Arboricultural Method Statement and Tree Protection Plan) prior to the commencement of any development associated works:

#### 3.1 TREES TO BE REMOVED

*Affected Trees* n/a

|                                          |                                                            |
|------------------------------------------|------------------------------------------------------------|
| <i>Impact Appraisal &amp; Mitigation</i> | No trees are to be removed as part of the proposed scheme. |
|------------------------------------------|------------------------------------------------------------|

|                                       |     |
|---------------------------------------|-----|
| <i>Significance (with mitigation)</i> | n/a |
|---------------------------------------|-----|

#### 3.2 TREES TO BE PRUNED

*Affected Trees* Cat. B: T1 (Acer pseudoplatanus)

|                      |                                                                                                                                                                                                                                                                                 |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Pruning works</i> | The following trees are to be pruned as part of the proposed scheme. The pruning specification for each tree is shown in the table below:<br><br>- T1 (B1) - Crown lift north facing section of crown over proposed building site to 4m above ground level to facilitate works. |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                       |            |
|---------------------------------------|------------|
| <i>Significance (with mitigation)</i> | Negligible |
|---------------------------------------|------------|

#### 3.3 INSTALLATION OF FOUNDATIONS (RESULTING IN ROOT LOSS)

*Affected Trees* Cat. B: T1 (Acer pseudoplatanus)

|                                          |                                                                                                                       |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <i>Impact Appraisal &amp; Mitigation</i> | The installation of the proposed governor kiosk slab foundation will result in a tolerable RPA incursion of 9% to T1. |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|

Owing to the relative tolerance of the tree to root disturbance and loss and considering the size and likely depth (~500mm) of the proposed incursion, any lasting impact on the overall health and condition of the tree is believed to be tolerable limits. However, owing to its size, it is recommended that soil amelioration takes place in order to mitigate any impact.

Mitigation:

- During the excavation of the foundations, should any roots with a

diameter in excess of 20mm be uncovered, they will require cutting with pruning loppers. This task must be done under the supervision of the project's Arboricultural Clerk of Works.

- Furthermore, the casting of the foundations has the potential to result in the poisoning of nearby tree roots (uncured cement is toxic to plants).

- To prevent the poisoning of surrounding tree roots, an impermeable membrane must first be laid within any excavations within the RPA of a retained tree prior to the pouring of concrete.

- To mitigate against the loss of rooting environment as a result of the incursion the remaining unsurfaced rooting area will undergo soil improvement works. This will take the form of 'vertical mulching':

(i) A 0.5m<sup>2</sup> grid will be marked out within the extended rooting area of the tree. At each grid point, an auger or airspade will be used to excavate a 75mm x 400mm deep hole (taking care not to damage roots >20mm diameter).

(ii) The holes will then be filled with a mix of the following (or similar): John Innes No 3 Soil (50%); Organic compost (40%); Slow release fertiliser (5%); Biochar (5%).

(iii) In addition to the above, and to improve, distribute the nutrients added to the holes, and to decompact the existing soil within the tree's rooting area, mixed earth worm colonies will also be introduced to the soil.

The above specification has been proven to significantly enhance root growth, soil respiration and fertility and prolonged decompaction (based on Dr Glynn Percival's research, outlined in 'Bartlett Tree Experts Research Laboratory Technical Report - Vertical Mulching' and their study at Stockley Park).

**Significance**  
(with mitigation)

Acceptable

### 3.4 INSTALLATION OF SECURITY FENCING

**Affected Trees** Cat. B: T1 (*Acer pseudoplatanus*),

**Impact  
Appraisal &  
Mitigation**

New security fencing is to be installed within the RPA of T1.

To avoid impacting tree roots, the following installation methodology must be used.

Mitigation:

- The post holes must be manually excavated.

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- An impermeable liner must be installed in the post holes before pouring of concrete to avoid poisoning roots.

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|                                                 |            |
|-------------------------------------------------|------------|
| <b>Significance</b><br><i>(with mitigation)</i> | Negligible |
|-------------------------------------------------|------------|

### 3.5 IMPLEMENTATION OF PROPOSED SCHEME

|                       |                    |
|-----------------------|--------------------|
| <b>Affected Trees</b> | All retained trees |
|-----------------------|--------------------|

|                                          |                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Impact Appraisal &amp; Mitigation</b> | <p>During the construction process, all retained trees are susceptible to damage from general construction related activities.</p> <p><i>In order to reduce the risk of construction damage to the site's retained trees, tree protection barriers and temporary ground protection must be installed before the commencement of any site works.</i></p> |
|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                 |            |
|-------------------------------------------------|------------|
| <b>Significance</b><br><i>(with mitigation)</i> | Negligible |
|-------------------------------------------------|------------|

## TREE RELATED SHADING AND NUISANCES

### 3.6 LONG-TERM IMPACT OF RETAINED TREES ON PROPOSED SCHEME

#### 3.6.1 Canopy Growth

3.6.1.1 The layout of the scheme has been designed with consideration of the location and growth potential of nearby trees. Owing to such, no noteworthy contention between tree canopies and property are anticipated.

#### 3.6.2 Nuisances

3.6.2.1 Owing to the tree species present within and around the site, and the layout of the proposed scheme, additional unreasonable tree-related nuisances, such as leaf and fruit-fall, are not thought to exist beyond what might generally be considered as acceptable limits.

## OPPORTUNITIES FOR NEW TREE PLANTING

### 3.7 PROVISION OF NEW TREE PLANTINGS

3.7.1 New tree plantings are not considered to be necessary as part of the proposed scheme.

## CONCLUSION

### 3.8 SUMMARY OF THE DEVELOPMENT'S OVERALL IMPACT

The table below summarises the trees which will be lost, pruned, or protected by special measures during the development project.

|                                                                               | Tree Category |   |   |   |       |
|-------------------------------------------------------------------------------|---------------|---|---|---|-------|
|                                                                               | A             | B | C | U | Total |
| Trees to be removed                                                           | -             | - | - | - | -     |
| Groups to be removed                                                          | -             | - | - | - | -     |
| Other Vegetation to be removed                                                | -             | - | - | - | -     |
| Groups / Hedges to have sections removed                                      | -             | - | - | - | -     |
| Trees to be pruned                                                            | -             | 1 | - | - | -     |
| Site clearance                                                                | -             | - | - | - | -     |
| Routing and installation of utility apparatus                                 | -             | - | - | - | -     |
| Instances of trees being affected by the installation of buildings/structures | -             | 1 | - | - | -     |
| Instances of trees being affected by the installation of surfacing            | -             | 1 | - | - | -     |
| Number of new tree plantings                                                  | -             | - | - | - | -     |

- 3.8.1 Considering the anticipated arboricultural impact from the construction activities associated with the development of the site, and the implementation of the proposed mitigation measures outlined in this document, the proposed development's arboricultural impact is considered to be **acceptable**.

## 4 APPENDICES

### 4.1 APPENDICES

4.1.1 The following appendices are included within this document:

| Appendix | Document                                          |
|----------|---------------------------------------------------|
| 1        | Tree Survey                                       |
| 2        | Site Photos                                       |
| 3        | Arboricultural Site Plan (Existing) (P3694-ASP01) |
| 4        | Arboricultural Site Plan (Proposed) (P3694-ASP02) |

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# APPENDIX 1 TREE SURVEY

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## APPENDIX 1 – TREE SURVEY

### A1.1 SITE VISIT

- i) A site visit was undertaken by Jake Duthie of Ligna Consultancy, on the 14/03/2024

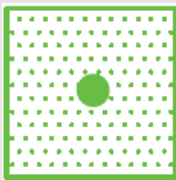
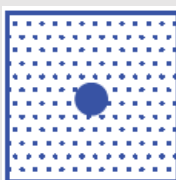
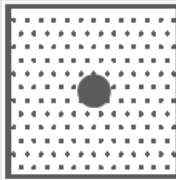
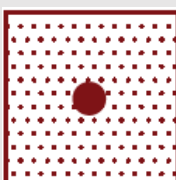
### A1.2 METHOD OF DATA COLLECTION

- i) Data was collected using the recommendations laid out in British Standard 5837:2012 as a guide. All observations were from ground level without detailed or invasive investigations.
- ii) Measurements have been calculated using a laser measurer and diameter tape/calipers. Where this was not possible or reasonably practical, measurements have estimated by eye.
- iii) The trees were surveyed and assessed impartially and irrespective of the proposed development. Management recommendations should be implemented regardless of any proposed development for reasons of sound arboricultural management or safety.
- iv) The method used for categorising the trees can be seen in section A1.3. This is an improved variation of the method suggested in BS 5837:2012.
- v) BS 5837:2012 recommends that better quality (category A and B trees) are retained where possible. Planning permission overrides a Tree Preservation Order and Conservation Area. Furthermore, trees are a material consideration in the UK planning system irrespective of their legal status. Trees in land adjacent to the site are considered where they may be impacted by development; for example, when roots or branches encroach onto the site.
- vi) Trees may be recorded as group or woodland where:
  - The canopies touch.
  - The trees have more group value than individual merit.
  - They are part of a formal landscape feature like an avenue.
  - It is impractical to record them individually.
- vii) Trees within groups or woodlands etc. are recorded individually where it is necessary to distinguish them from others.

### A1.3 SURVEY KEY & GLOSSARY OF TERMS

| Term                               | Definition                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ref.                               | Tree reference number                                                                                                                                                                                                                                                                                                                                                                                                             |
| Tag                                | Physical tag attached to some trees with unique identification number (not the same as Ref.)                                                                                                                                                                                                                                                                                                                                      |
| Species                            | The trees' scientific and common name                                                                                                                                                                                                                                                                                                                                                                                             |
| Height                             | The measured/estimated height of the tree (measured in metres)                                                                                                                                                                                                                                                                                                                                                                    |
| Branch Spread                      | The length of a tree's branches from stem to tip measured from the north, east, south and western sides of the crown.                                                                                                                                                                                                                                                                                                             |
| Crown Clearance                    | Crown clearance is the measurement of height between the trees branches in the outer third of its crown and the floor. Crown clearance has only been recorded where it is considered to be of relevance to the proposed scheme. The height of the first significant branch is also generally recorded and is discussed where relevant.                                                                                            |
| DBH                                | Diameter of a trees' stem, measured as per BS 5837:2012                                                                                                                                                                                                                                                                                                                                                                           |
| RPA                                | 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 the roots and soil structure is treated as a priority.                                                                                                                                                       |
| Life Stage                         | A quantification of a trees' state of physical maturity: <ul style="list-style-type: none"> <li>• Young</li> <li>• Semi-mature</li> <li>• Early-Mature</li> <li>• Mature</li> <li>• Late-mature</li> <li>• Veteran</li> <li>• Dead</li> </ul>                                                                                                                                                                                     |
| Structural                         | Summary statement relating to the structural condition of a tree: <ul style="list-style-type: none"> <li>• Good (no apparent problems / normal optimal condition for a tree of its species.)</li> <li>• Fair (minor problems, no instabilities)</li> <li>• Poor (major problems, potential instabilities)</li> <li>• Unstable (extreme problems, likely to result in failure)</li> </ul>                                          |
| Vitality                           | Summary statement relating to the overall observed vitality of a tree: <ul style="list-style-type: none"> <li>• Good (no apparent problems / normal optimal vitality for a tree of its species)</li> <li>• Fair (minor / temporary reduction in tree vitality)</li> <li>• Poor (major reduction in tree vitality, often with some branch dieback)</li> <li>• Dead / Dying (extreme / total reduction in tree vitality)</li> </ul> |
| General Management Recommendations | Remedial tree works recommended regardless of whether the site is developed or not.                                                                                                                                                                                                                                                                                                                                               |
| Facilitation Tree Works            | Tree pruning/felling required in order to facilitate the implementation of the proposed development.                                                                                                                                                                                                                                                                                                                              |
| Development Related Tree Works     | Tree works that are required as part of the proposed scheme.                                                                                                                                                                                                                                                                                                                                                                      |
| Tolerance                          | The relative tolerance the species can show to construction related activities such as root-loss, soil compaction and other development pressures.                                                                                                                                                                                                                                                                                |
| Cat.                               | Categorisation of the tree's value based on the methodology shown in A1.4. This rating takes into account the size, quality, condition, estimated remaining life expectancy and legal status of each tree.                                                                                                                                                                                                                        |

## A1.4 TREE CATEGORISATION METHODOLOGY

| Category and definition                                                                                                                                                                                                                                                     | Criteria / Subcategories                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                   |                                                                                                                                       | Label on plan                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                             | 1 – Mainly arboricultural qualities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2 – Mainly landscape qualities                                                                                                                                                                                                                                    | 3 – Mainly cultural values/conservation                                                                                               |                                                                                       |
| Trees worthy of being a material constraint:                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                   |                                                                                                                                       |                                                                                       |
| <b>Category A</b><br><br>Trees of high quality, capable of providing a significant contribution to local amenity (usually large in size) and that generally possess an estimated remaining life expectancy of 40+ years.                                                    | Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)                                                                                                                                                                                                                                                                                                                                                                                           | Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features                                                                                                                                                            | Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture) |    |
| <b>Category B</b><br><br>Trees of moderate quality and with an estimated remaining life expectancy of 20+ years, that are capable of providing a notable contribution to local amenity but are lacking the condition of category A trees (usually medium to large in size). | Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage); or trees lacking the special quality necessary to merit the category A designation                                                                                                                                                                                                                                                                                                                                                | Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality | Trees with material conservation or other cultural value                                                                              |   |
| Trees worthy of material consideration:                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                   |                                                                                                                                       |                                                                                       |
| <b>Category C</b><br><br>Trees of a low quality, small size, or incapability to be protected within the legal framework. These trees generally possess an estimated remaining life expectancy of 10+ years.                                                                 | Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits                                                              | Trees with no material conservation or other cultural value                                                                           |  |
| Trees unsuitable for retention owing to condition:                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                   |                                                                                                                                       |                                                                                       |
| <b>Category U</b><br><br>Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.                                                                                              | <ul style="list-style-type: none"><li>Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)</li><li>Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline</li><li>Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low-quality trees suppressing adjacent trees of better quality</li></ul> |                                                                                                                                                                                                                                                                   |                                                                                                                                       |  |

### A1.5 SUMMARY OF DATA

- i) The following woody vegetation was considered to be of note in relation to any development of the site: 1 individual tree.
- ii) The following tables show the category distribution and life stage of the trees distributed within the site:

|                  | Tree Category |   |   |   |
|------------------|---------------|---|---|---|
|                  | A             | B | C | U |
| Individual Trees | -             | 1 | - | - |
| Groups           | -             | - | - | - |
| Woodland Groups  | -             | - | - | - |
| Hedges           | -             | - | - | - |
| Shrubs           | -             | - | - | - |

Table 1 - Table showing category distribution within site.

|                  | Life Stage |             |              |        |             |         |      |
|------------------|------------|-------------|--------------|--------|-------------|---------|------|
|                  | Young      | Semi-Mature | Early-Mature | Mature | Late-Mature | Veteran | Dead |
| Individual Trees | -          | -           | -            | 1      | -           | -       | -    |
| Groups           | -          | -           | -            | -      | -           | -       | -    |
| Woodland Groups  | -          | -           | -            | -      | -           | -       | -    |
| Hedges           | -          | -           | -            | -      | -           | -       | -    |
| Shrubs           | -          | -           | -            | -      | -           | -       | -    |

Table 2 - Table showing life stage distribution within the site.

| Ref. | Tag         | Species                           | Height (m) | Crown<br>(N/E/S/W)     | Crown<br>Clearance (m) | DBH (mm) | Life Stage | Structural | Vitality | Additional Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | General Management<br>Recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                      | Priority  | Development Related Tree<br>Works                                                                                  | Tolerance | RPA Radius<br>(m) | RPA Area<br>(m²) | Cat. |
|------|-------------|-----------------------------------|------------|------------------------|------------------------|----------|------------|------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------|-----------|-------------------|------------------|------|
| T1   | 9<br>3<br>2 | Acer pseudoplatanus<br>(Sycamore) | 18.7       | 7.7 / 7.3 / 8.3<br>/ 6 | 1.9                    | 810      | Mature     | Fair       | Fair     | <p>Tree growing across fence from car park. DBH and west facing crown measurements estimated due to fence obstructing access to tree. Twin stemmed from approximately 1m, tight union with 0.6m of inclusion above union. North stem fusing to south stem 3.5m up then curving to south. Natural bracing mitigates risk of failure at present but crown reduction is still considered prudent. (Tolerable risk - code 431) Lowest limb 2.8m up south-east facing has shear fracture 0.4-1.2m from stem, (Unacceptable risk where imposed on others - code 332). The tree's crown is obstructing the light splay of the street lamp. Low branches over pavement. 1 East facing branch 11m up showing reduced vitality compared to surrounding canopy. Moderate size deadwood in crown, over car park.</p> | <p>Reduce crown by 2-3m to suitable growth points. Reduce lowest limb with shear fracture by 3-4m to suitable growth points. Prune the tree's tertiary branches to provide 1m clearance with the street lamp, and ensuring that a 45 degree from vertical splay is clear so as to allow light to reach the underlying pavement unobstructed. Prune tree to provide 2.5m clearance over the pavement. Remove significant deadwood (&gt;20mm diameter and 1m in length).</p> | 12 months | Crown lift north facing section of crown over proposed building site to 4m above ground level to facilitate works. | Moderate  | 9.7               | 296.8            | B1   |

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# APPENDIX 2

# SITE PHOTOGRAPHS

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### APPENDIX 3 – ARB. SITE PLAN (EXISTING)

Note - Below is a selection of site photographs intended for general site context. Should you require supplementary site/tree photographs please contact [info@lignaconsultancy.co.uk](mailto:info@lignaconsultancy.co.uk):



Figure 1 – T1 Photographed from the south-east within Westerfield Road car park.



Figure 2 – T1 Photographed from the east edge of Westerfield Road car park.



Figure 3 – T1 Photographed from the north-west corner of Westerfield Road car park.

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# APPENDIX 3

## ARB. SITE PLAN (EXISTING)

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Acer pseudoplatanus (Sycamore)  
T1  
Cat B

## Use of This Document

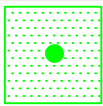
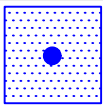
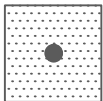
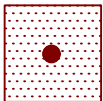
This document should be viewed in conjunction with the relevant arboricultural impact assessment and/or tree survey schedule.

## Tree Categorisation & Numbering

The method used for categorising the trees can be seen in Appendix 1 of the Tree Survey/Arboricultural Impact Assessment. The categorisation method used is an improved variation of the method suggested in BS 5837:2012.

BS 5837:2012 recommends that better quality trees (Cat. A & B) are retained where possible. Trees in land adjacent to the site are considered where they may be impacted by development.

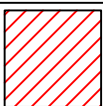
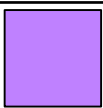
The trees considered significant within the context of the development are numbered and assigned a prefix of 'T' or 'G' to describe whether they are an individual or a group, and 'S' or 'H' for a shrub or hedge. Using this identification number, further information for each tree/group can be found within the survey schedule.

|                                                                                     |                                                                                                                                 |                                                                                     |                                                                                                                                           |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>Category A</b> : High or exceptional arboricultural, landscape or ecological value. (Worthy of being a material constraint.) |  | <b>Category B</b> : Moderate arboricultural, landscape or ecological value. (Worthy of being a material constraint.)                      |
|  | <b>Category C</b> : Low quality or small in size. (Not worthy of being a material constraint.)                                  |  | <b>Category U</b> : Such poor quality or condition that renders it unsuitable for retention. (Not worthy of being a material constraint.) |

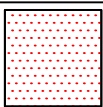
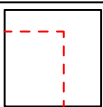
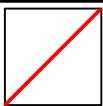
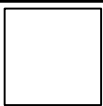
## Root Protection Areas

In order to avoid damage to the roots or rooting environment of retained trees, the Root Protection Areas (RPA's) should be plotted around each of the category A, B and C trees. This is a notional depiction of the minimum rooting area in m2 which should be left undisturbed around each tree. The RPA is calculated using the *British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'*, unless otherwise stated within the survey schedule.

Where there appears to be restrictions to root growth the root protection area is reshaped to more accurately reflect the likely distribution of the roots.

|                                                                                       |                                                                                                                                                  |                                                                                       |                                                                                                                                     |
|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
|   | <b>Root Protection Area (RPA)</b> : The notional area around each tree which should be left undisturbed during the development of the site.      |   | <b>RPA Incursion</b> : Anticipated incursion into the root protection area of a proposed tree which may result in root loss/damage. |
|  | <b>Arboriculturally Sensitive Demolition/Removal</b> : A structure or surfacing is to be removed using special methods to avoid damage to trees. |  | <b>Specialist Foundations</b> : Low impact foundations to be used to preserve underlying tree roots.                                |

## Further Object Key

|                                                                                       |                                                                                               |                                                                                       |                                                                                                                                    |
|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>Tree Removal</b> : Trees designated for removal will comprise of a red dotted canopy fill. |  | <b>Buildings/Surfacing to be Removed</b> : Buildings or surfacing to be removed will generally be depicted with a dashed red line. |
|  | <b>Site Boundary</b> : Extent of site boundary (illustrative only).                           |  |                                                                                                                                    |



|                                                     |            |                       |
|-----------------------------------------------------|------------|-----------------------|
| Project:<br>Westerfield Road Car Park, Tottenham    |            |                       |
| Client:<br>Dalcour MacLaren                         |            |                       |
| Drawing:<br>Arboricultural Site Plan (Existing)     |            |                       |
| Drawing Ref:<br>P3694-ASP01                         | Rev:<br>V1 | Date:<br>19/03/2024   |
| Scale:<br>1:200 - A3                                |            | Drawn By:<br>J.DUTHIE |
| Based on:<br>1540.03-DG-0003-R0 Proposed Block Plan |            |                       |

All dimensions should be checked on site. No dimensions to be scaled from this drawing. Please notify us of any discrepancies found. Ligna Consultancy Ltd. cannot be held responsible for inaccuracies in the base drawing in which this plan is based. This drawing is designed to reflect the principles of the layout or design only, and relates only to the protection of retained trees.

An architect or structural engineer should be contacted over any matters of construction, detailing or specification and for any standards or regulatory requirements relating to proposed structures, hard surfacing or underground services.

This drawing was produced in colour - a monochrome copy should not be relied upon.

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# APPENDIX 4

## ARB. SITE PLAN (PROPOSED)

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Remaining RPA to be ameliorated

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W. [www.lignaconsultancy.co.uk](http://www.lignaconsultancy.co.uk)  
E. [info@lignaconsultancy.co.uk](mailto:info@lignaconsultancy.co.uk)  
T. 01284 598008

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