

KNOWSLEY IMAGE BUSINESS PARK LTD

SITE 2, IMAGE BUSINESS PARK

**ARBORICULTURAL METHOD STATEMENT
TO BS 5837:2012**

our ref: 2159 / EH / AMS001A
date: 8th December 2021
prepared by: E.C.H
checked by: T.G-W

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arboricultural method statement



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1.0 Context

- 1.1 The works included within this arboricultural method statement are part of the development of Site 2, Image Business Park proposed for Knowsley Image Business Park Ltd as described within the Design & Access Statement.
- 1.2 As part of the planning application a tree survey was carried out for the area affected by the works (refer to Tree Survey 1987/TGW/TR001. The tree survey includes the Tree Constraints Plan 19-87-02 which identifies the root protection areas of the surveyed trees.
- 1.3 The Arboricultural Impact Assessment (refer to 2159/EH/AIA001 identifies those trees to be removed and those to be retained (refer to the Retention & Removal Plan 21-59-01 as part of the proposed development.
- 1.4 This method statement refers to the protection of those trees in proximity of the works to be retained as part of the proposals including the woodland W1 and offsite trees T01 & T2.

2.0 Tree Protection Informative:

- 2.1 Trees that are in good health have grown and adapted to their surroundings. Any building works or construction activity which affects their surrounding could affect their vigour, future growth and safety.
- 2.2 The tree root system is the most susceptible to damage and can affect the health, growth, life expectancy and safety of the tree. Damage to the trunk and branches of a tree is not usually sufficient to kill the tree, but it can affect the shape and growth potentially making a tree unsafe.
- 2.3 Tree roots are typically concentrated within the uppermost 600mm of the existing ground level and form a network of small diameter woody roots (typically less than 1cm or pencil thickness) with mass of finer roots. These tree roots can extend for a distance much greater than the height and spread of the tree, except where prevented by unfavourable surroundings or obstructions. These fine roots are essential for the continued health and vitality of the tree and are dependent on the existing soil conditions being maintained.
- 2.4 All parts of the root system, but especially the fine roots, are vulnerable to damage from uncontrolled activities. It is also known that mature trees recover slowly, if at all, from damage to their roots, whilst younger trees with good vitality do have a chance to adapt.

3.0 Construction Proposals

- 3.1 A construction proposals include redevelopment of the site for a single light industrial unit with associated service yard, car parking, ancillary structures and soft landscaping.

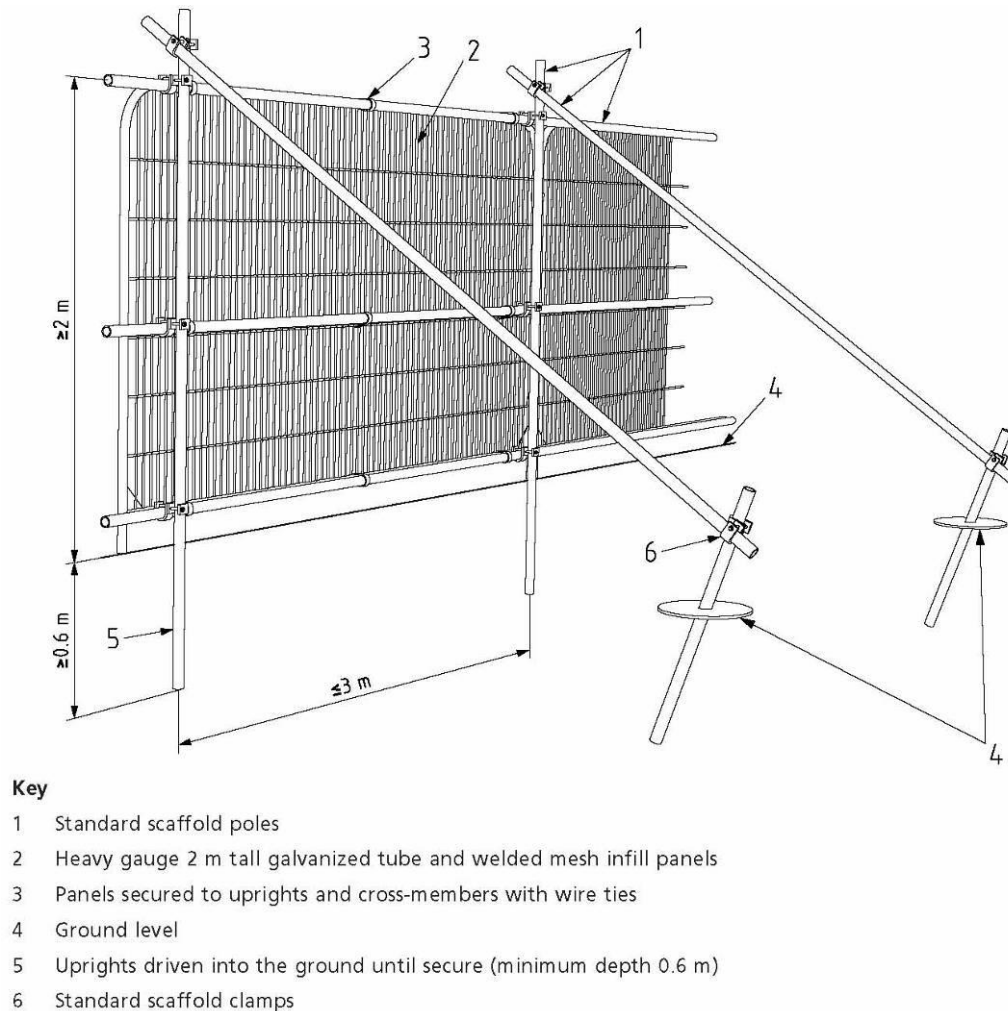
4.0 Tree Protection

- 4.1 Prior to the erection of the Tree Protection fencing the existing trees to the edge of the woodland W1 are to be removed by an Arboricultural Association accredited tree surgeon in accordance with BS 3998: 2010 'Tree Work - Recommendations' as identified on the Tree Retention & Removal Plan 21-59-01.
- 4.2 All trees that are being retained on site are to be protected by barriers and/or ground protection prior to any site activity and before any materials or machinery are brought onto the site, before any demolition, development or stripping of soil commences. Where all activity can be excluded from the RPA, vertical barriers are to be erected to create a construction exclusion zone. The default barrier specification is to be in accordance with Figure 2. of BS 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendations' as illustrated below and identified within the Tree Protection Plan 21-59-02.
- 4.3 The protected area is to be regarded as sacrosanct, and, once installed, barriers and ground protection is not to be removed or altered without prior recommendation by the project arboriculturalist and, where necessary, approval from the local planning authority.
- 4.4 All weather tree protection posters as detailed below are to be securely fixed to the tree protection fencing at 10 metre centres in plain view.



- 4.5 The tree protection fencing to the retained trees W1, T1 & T2 is to be erected as detailed above and on the Tree Protection plan 21-59-02 and maintained in place until the completion construction of the project.

- 4.6 Care is to be exercised when locating the vertical poles to avoid underground services and, in the case of the bracing poles, also to avoid contact with structural roots. If the presence of underground services precludes the use of driven poles, an alternative specification that provides an equal level of protection is to be prepared in conjunction with the project arboriculturalist as illustrated within Figure 3 of BS 5837:2012.



BS 5837 Figure 02; Default Specification for protective barrier

5.0 Site Compound and Working Area

- 5.1 The site compound area is to be located adjacent to the site entrance on an area of existing / proposed hard surfacing and accessed from the internal estate road within the Images Business Park. All contractors staff car parking is to be contained within the same area.

6.0 Haul Routes

- 6.1 The route for the haulage of materials and deliveries within the site is to be along the line of the proposed hard surface areas which are to be constructed to base course prior to the commencement of building construction.

- 6.2 The planning of site operations is to take sufficient account of wide loads, tall loads and plant with booms, jibs and counterweights (including drilling rigs), in order that they can operate without coming into contact with retained trees. Any transit or traverse of plant in proximity to trees are to be conducted under the supervision of a banksman, to ensure that adequate clearance from trees is maintained at all times.

7.0 Temporary Topsoil Storage

- 7.1 The stripped topsoils are to be stored in temporary mounds outside of the construction exclusion zones of the retained trees as shown on the Tree Protection Plan. In accordance with BS 4428 topsoil heaps should not exceed 3m in height.

8.0 Soft Landscape Implementation

- 8.1 The proposals require the seeding of a proposed grass bank at the edge of the RPA of trees to the edge of W1 and therefore careful consideration is required to ensure the existing trees are protected during implementation including works are to be carried out whilst causing minimal damage to the trees.
- 8.2 To limit the risk of ground compaction, access to the planting area is to be from the hard standing / pave apron surrounding the completed building with the preparation, cultivation and seeding works carried out after the completion of the main construction activities and the removal of the Tree Protection fencing.
- 8.3 To avoid unnecessary root damage, no cultivation of the topsoil is to be carried out within the Tree Protection Areas of the retained trees.

9.0 Arboricultural Supervision

- 9.1 Tree surgery recommendations and tree removals are to be approved with the local authority tree officer and carried out prior to construction. Tree works are to be carried out by a Arboricultural Association registered Tree Surgeon, refer to the Schedule of Tree Works.
- 9.2 The erection of the Tree Protection fencing is to be inspected and approved by Bea Landscape Design prior to the commencement of construction.

Appendix A: Technical Definitions

Access Facilitation Pruning:	One off tree pruning operation, the nature and effects of which are without significant adverse impact on tree physiology or amenity value, which is directly necessary to provide access for operations on site.
Arboricultural Impact Assessment	An evaluation of the direct and indirect effects of the proposed design on the trees identified within the Tree Survey, where necessary recommending mitigation or amendments to the design.
Arboricultural Method Statement	Methodology for the implementation of any aspect of development that is within the root protection area, or has the potential to result in loss of or damage to a tree to be retained.
Construction Exclusion Zone	An area based on the root protection area from which access is prohibited for the duration of a project
Root Protection Area (RPA)	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 considered a priority
Tree Protection Plan	A scale drawing informed by descriptive text where necessary, based upon finalised proposals, showing trees for retention and illustrating the tree and landscape protection measures.

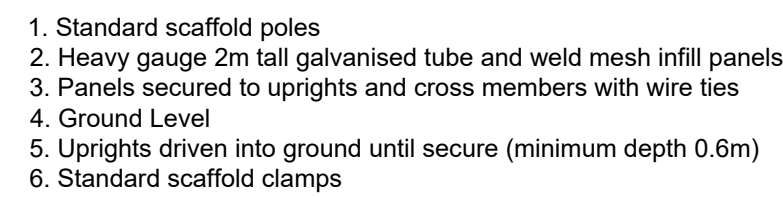
Appendix B: References

1. BSI (2012) '*British Standard 5837:2012 Trees in relation to design demolition and construction – recommendations*' British Standards Institution, London
2. NJUG Volume 4 (2007) '*Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees.*' The National Joint Utilities Group
3. BSI (2010) '*Tree work – Recommendations*' British Standards Institution, London
4. AA (2020) '*The Use of Cellular Confinement Systems Near Trees: A Guide to Good Practice*' Guidance Note 12. Arboricultural Association.

1.0 PRIOR TO COMMENCEMENT OF WORKS:

1.2 EXTENT OF ROOT PROTECTION AREA (RPA): as shown on the Tree Protection Plan (TPP) the RPA is generally to be in accordance with Annex D, Table D.1 'Root Protection Area.' - as an area equivalent to a circle radius 12 times the stem diameter (single stem trees) or based on the combined stem diameter for multistem trees (trees with more than one stem arising below 1.5m above ground level) refer to Clause 4.6.

All weather site notices should be attached to the barrier with words such as "CONSTRUCTION EXCLUSION ZONE - NO ACCESS". Once installed barriers and ground protection shall be not be removed or altered without prior approval of the project arboriculturalist and where necessary approval from the local planning authority.



2.0 ADDITIONAL PRECAUTIONS:

2.2 Any materials whose accidental spillage would cause damage to a tree should be stored and handled well away from the outer edge of its RPA e.g. concrete mixings, diesel oil and vehicle washings. Allowances shall be made for sloping ground to avoid damaging materials running towards retained trees.

2.4 Trees are not to be used as anchorages for equipment, or for other purposes. Notice boards, telephone cables, or other services should not be attached to any part of the tree.

3.0 GROUND PROTECTION DURING DEMOLITION & CONSTRUCTION

3.2 Where the set-back of the tree protection barrier exposes unmade ground to construction damage, new temporary ground protection should be installed as part of the implementation of physical tree protection measures prior to work starting on site.

a) for pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100 mm depth of woodchip), laid onto a geotextile membrane;

c) for wheeled or tracked construction traffic exceeding 2 t gross weight, an alternative system (e.g. proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected. If necessary sand should be laid on the ground as a compressible layer.

 TREE PROTECTION FENCE: to be constructed in accordance with BS5837 prior to commencement.

 CONSTRUCTION EXCLUSION ZONE: to be protected from

DIMENSIONS: setting out dimensions from trunk of retained trees or other existing site features. Phase 2 fencing to be erected prior to removal of Phase 01 fencing



TREES TO BE RETAINED: with root protection zone illustrated.

○ TREE REMOVAL: trees to be removed to enable construction.

ARBORICULTURAL METHOD STATEMENT: refer to the Arboricultural Method Statement 2159/EH/AMS001 for more detailed information.



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Refer any query to office of origination.

rev	date:	amendments:	alt:
A	27/10/2021	Northern boundary amended.	E.H
B	08/12/2021	Levels amended. Retaining wall added.	E.H

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