

Arboricultural method statement

TREES

at and adjacent to

**23 Rochester Road
London
NW1 9JJ**

for

Phyton Properties Ltd

Skerratt

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1. Scope and status

1.1 Scope

- 1.1.1 This method statement sets out measures for the protection of 4 trees in relation to the proposed refurbishment and extension of 23 Rochester Road, London NW1 9JJ, before, during and after permitted development has been completed.
- 1.1.2 The locations of the 4 trees and 1 additional tree that is to be removed are shown on the **Tree protection plan** in **Appendix a**. Their detailed dimensions and required pre-contract remedial works are set out in the **Pre-contract tree works schedule** in **Appendix b** of this method statement.
- 1.1.3 The proposed development comprises:
- The extension of the dwelling's existing lower ground floor
 - Refurbishment and extension of the existing ground, first and second floors
 - Associated minor external works
- 1.1.4 The measures contained in this method statement are based on the advice and guidance set out in *BS5837: 2012: Trees in relation to design, demolition and construction – Recommendations*.

1.2 Status

- 1.2.1 This method statement forms a part of the building contract and its requirements are an integral part of the contract specification and schedule of works.
- 1.2.2 A copy of the method statement should be available for inspection on site at all times.
- 1.2.3 All persons working on site should be aware of the importance of avoiding damage to trees and should observe the necessary precautions. A guidance leaflet is included in this method statement in **Appendix c**.

2. Preparatory works prior to construction

2.1 Tree works

2.1.1 Preparatory tree works to retained trees are listed in the **Pre-contract tree works schedule** in **Appendix b** and should be carried out prior to the start of the main contract.

2.1.2 All works will be carried out in accordance with *BS3998:2010 Recommendations for Tree Work*, by an appropriately qualified tree work contractor.

2.1.3 Unless otherwise specified, all arisings are to be taken off-site to an approved tip.

2.2 Protective measures: tree protection fencing

2.2.1 The extent and location of tree protection fencing is shown on the **Tree protection plan** in **Appendix a**. Fencing must be erected before any site works take place. It is particularly important that no demolition, soil stripping, breaking out of existing hard surfaces, re-grading or other excavation takes place before protective fencing has been erected.

2.2.2 Tree protection fencing will comply with the advice and guidance contained in *BS5837:2012 – Trees in relation to design, demolition and construction – Recommendations*.

2.2.3 The British Standard specifies 2000mm high panels with a galvanised tubular frame and welded mesh infill (eg Heras round or square top panels or equivalent), attached to a scaffold framework with braced uprights at no more than 3m intervals. Subject to the agreement of the local authority, plywood panels are also fit-for-purpose as long as the panels are attached to uprights driven or dug into the ground at no more than 3m spacings and braced as specified in the British Standard. A 1:20 detail of the current British Standard specification for protective fencing is included at the end of this statement in **Appendix c**.

2.2.4 Subject to the agreement of the local authority, plywood panels are also fit-for-purpose as long as the panels are attached to uprights driven or dug into the ground at no more than 3m spacings and braced as specified in the British Standard.

2.2.5 *Unless otherwise specified*, areas separated from the construction site by protective barriers are **Construction Exclusion Zones (CEZ)**.

- 2.2.6 **CEZs** are total exclusion areas. All of the following will be excluded:
- Animals
 - Pedestrians
 - Vehicles and construction equipment
 - Materials and equipment storage
 - Contamination from materials used outside the **CEZ** – (for example spillage of diesel or other toxic liquids)
 - Surface water runoff from outside the **CEZ**

2.2.7 Clearly legible, weatherproof signs will be fixed to the perimeter fencing of each **CEZ** clearly setting out the access restrictions set out above. An example is included at the end of this statement in **Appendix c**.

2.3 **Protective measures: ground protection**

2.3.1 Ground protection layers will be installed in the areas indicated on the **Tree protection plan** in **Appendix a** at the same time as protective fencing is erected. It is particularly important that no demolition, soil stripping, breaking out of existing hard surfaces, re-grading or other excavation takes place before ground protection layers have been installed.

Ground protection

2.3.2 Ground protection will consist of side butted scaffold boards or a sheet material of equivalent strength laid on a 50mm compressible layer (woodchip for example) above a geo-textile membrane.

2.3.3 Existing hard surfacing is acceptable as a ground protection layer without reinforcement.

2.3.4 Each successive section of ground protection will be laid by personnel and machinery working from the immediately preceding section or from existing hard surfacing.

2.4 **Approval prior to start of works**

2.4.1 Approval for the location and method and standard of construction of tree protection fencing and ground protection layers will be obtained from the local authority prior to start of works.

3. Works during development

3.1 Storage, handling and use of materials

3.1.1 Inert materials may be stored in the optional storage area shown on the **Tree protection plan** in **Appendix a**.

3.1.2 Phytotoxic materials (diesel and cement for example) must not be stored within the RPA of any retained tree.

3.1.3 Phytotoxic liquids will be stored in a purpose-built bunded container or compound to prevent the risk of spillage.

3.2 Safe positioning of heavy lifting and handling equipment

3.2.1 Heavy lifting and handling equipment (eg cranes and excavators) must be located in such a way that, when in use, no part extends into any **CEZ**. If lifting and handling equipment is working beneath the crown spread of any retained tree, a banksman will be employed to guide operations and minimise the risk of damage to the tree's branch system.

3.3 No fires on site

3.3.1 No fires will be lit anywhere on site.

3.4 Excavation

Excavation to approved depth for basement void and associated lightwell

3.4.2 Roots exposed in the course of approved excavations will be cut cleanly, at their point of origin or flush with face the excavation from which they enter the working area, with a sharp saw or loppers to minimise damage and promote rapid recovery.

3.5 Backfilling

Backfilling/casting floor slabs and piles

3.5.1 Lay a protective membrane over the complete vertical and horizontal faces of approved excavations where these are within the RPA of any retained tree, prior to backfilling or the construction of retaining walls.

3.5.2 Suitable membranes include a geotextile of appropriate thickness (Terram 1000 or equivalent) or building paper complying with BS1521.

3.6 Underground service connections

3.6.1 No excavations for underground services will be permitted within the RPAs of retained trees outside the footprint of the proposed construction.

3.7 Making good

Soft landscaping areas

- 3.7.1 Within the Construction Exclusion Zone, the ground surface will be cultivated by hand using hand operated tools only.
- 3.7.2 Roots exposed in the course of cultivation will be retained and immediately re-covered.
- 3.7.3 Where imported topsoil is used for backfilling or for the preparation of soft landscaping areas, it must be of good quality, be free of contaminants and foreign bodies and conform to the requirements for multipurpose topsoil set out in BS3882:2007.

3.8 Removal of protective fencing

- 3.8.1 Ground protection layers may be removed immediately prior to the start of external works.
- 3.8.2 Protective fencing may only be dismantled and removed when all construction works including external works are completed and all construction equipment has been removed from site.

4 Summary of methods

4.1 Conflicts and remedial actions

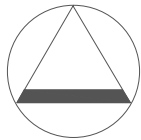
4.1.1 The main potential sources of damage to trees are listed in **Table 1** below together with the remedial measures that should be adopted to minimise or avoid damage.

Source of damage	Remedial actions	See	Trees at risk
Damage to tree stems and foliage	Erect protective fencing; plan construction activities to avoid damage to overhead branches:	Sections: 2.1, 2.2, 3.2. 3.3 Tree protection plan	T001
Damage by surface compaction from site traffic/storage of materials	Install ground protection layers where indicated:	Sections: 2.3 Tree protection plans	T001
Damage from spillage of toxic materials	Phytotoxic materials to be stored in a bunded compound/ container	Section: 3.1	T001
Damage to tree roots	Observe restrictions applying to CEZs	Sections: 3.4-3.7 Tree protection plans	T001

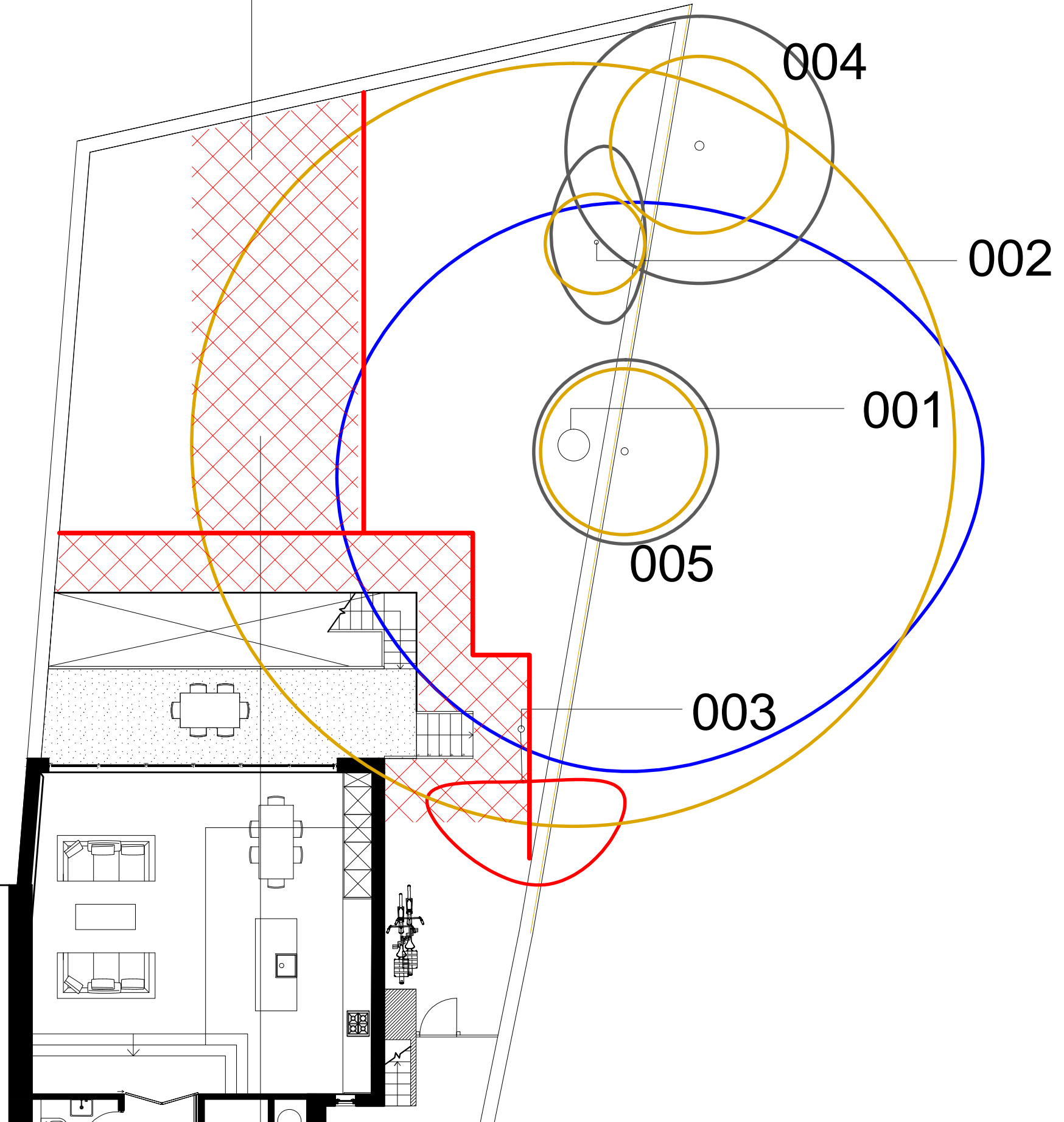
Table 1: Summary of Potential Damage Sources and Remedial Measures

Appendix a

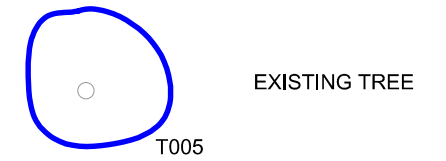
Tree protection plan



INERT MATERIALS STORAGE

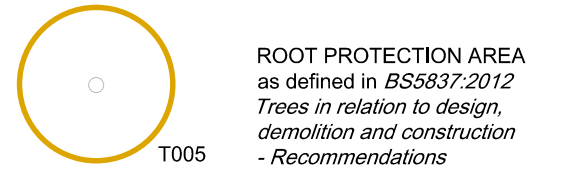


KEY



Trees are coloured on plan to correspond to the Retention Categories specified in: *BS5837:2012 Trees in relation to design, demolition and construction - Recommendations* as follows:

- Category A - GREEN
- Category B - BLUE
- Category C - GREY
- Category U - RED



REVISION	CHK'D	APP'D	DATE
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Client:
PHYSON PROPERTY LTD

Job Title:
23 ROCHESTER ROAD
LONDON
NW1 9JJ

Drawing Title:
TREE REMOVALS & PROTECTION PLAN

Drawing Number: 260.03.01 Scale: 1:100 (A3)

Date: 02.06.15 Drawn by: RS

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arboricultural advice

158 MALDEN ROAD, LONDON NW5 4BT
01274 566539

Appendix b

Pre-contract tree works schedule

Pre-contract tree works schedule

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Tree No.	Species	Height (m)	Diam (cm)	Crown Spread (m)				Crown Height (m)	Item
				N	E	S	W		
001	Cider Gum (<i>Eucalyptus gunnii</i>)	21	690 @ 0.3m	5	9	7	5	0/3	Lift crown to 4m above ground level on site side
002	Holly (<i>Ilex aquifolium</i>)	6	90	2	1	1	2	2/1	No action required
003	Elderberry (<i>Sambucus nigra</i>)	6	140	-1	2	3	2	2/1	Fell to near ground level: remove stump
004	Ash (<i>Fraxinus excelsior</i>)	11	160	3	3	3	3		No action required
005	Leyland Cypress (<i>X Cupressocypariss leylandii</i>)	6	150	2	2	2	2		No action required

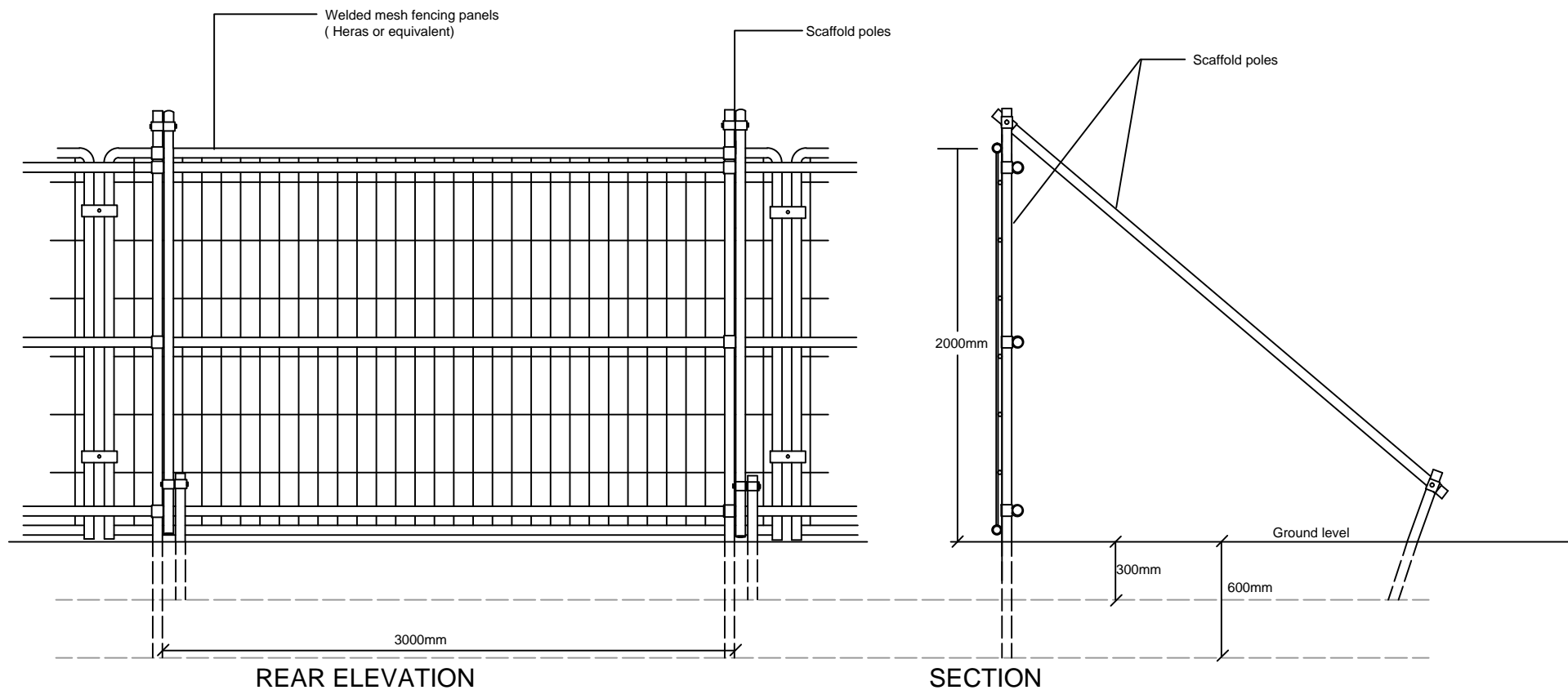
Client: NJP Developments Ltd
 Location: 23 Rochester Road, London NW1 9JJ
 Date: 02.06.15
 Job No.: 260

Appendix c

BS protective fencing detail

Tree protection notice

Tree protection notes



Excerpts from *BS5837:2012 Trees in relation to design, demolition and construction - Recommendations*

(For barriers) the default specification should consist of a vertical and horizontal scaffold framework comprising a vertical and horizontal framework, well braced to resist impacts, with vertical tubes spaced at a maximum interval of 3m and driven securely into the ground.

Onto this framework, welded mesh panels should be securely fixed, using wire or scaffold clamps.

Care should be exercised when locating the vertical poles to avoid underground services and, in the case of bracing poles, also to avoid contact with structural roots

NOTE: The above is preferred because it is readily available, resistant to impact, can be re-used and enables inspection of the protected area

BS5837:2012 Protective Fencing Detail

Scale: 1:20 [A4]

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arboricultural advice

158 MALDEN ROAD
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TREE PROTECTION ZONE

KEEP OUT

NO DIGGING OR TRENCHING

NO STORAGE OF PLANT AND MATERIALS

NO VEHICULAR ACCESS

NO FIRES TO BE LIT

NO CHEMICALS TO BE STORED OR HANDLED IN THE
VICINITY OF THIS ZONE

AVOID PHYSICAL DAMAGE TO TREES

REPORT DAMAGE TO TREES OR FENCING IMMEDIATELY

23 ROCHESTER ROAD
LONDON
NW1 9JJ

CARING FOR TREES

TREE PROTECTION NOTES

Trees are thin skinned and easily damaged

Their roots spread widely and run close to the ground surface.

All of the following can cause serious damage:

- Heavy traffic over and the storage of heavy materials above tree roots
- Direct damage to stems and branches from badly handled construction equipment,
- Root damage caused by unnecessary excavation
- Leakage of toxic liquids and powders above roots and close to tree stems.

Please keep the trees on site safe by following these simple rules carefully and in full.

There is a protective fence round each retained tree. These fenced-off areas are **CONSTRUCTION EXCLUSION ZONES (CEZ)**. Don't enter any CEZ unless authorised to do so

In Construction Exclusion Zones

- Don't store any materials
- Don't use heavy machinery
- Don't handle toxic materials
- Stick to the planned work programme. Don't undertake unscheduled variations
- Don't light fires
- Report any damage to protective fencing to the Site Manager

Work Planning

Plan your work so that construction machinery does not come into contact with and cause damage to branches and stems of retained trees.

Appoint someone to supervise movement of machinery and equipment close to CEZs

Tell the Site Manager if tree pruning is needed to get machinery in, out or around the site. Don't do it yourself