

Arboricultural Method Statement (AMS)

Ref - J190701 Rev A

Co-op Havant, Bedhampton Road, PO9 3PT

RPM Consult

October 2019



**Ground
Control®**
Professional Services

*Arboriculture
Ecology
Landscape Architecture
GIS & Mapping*

Ground Control Limited,
Kingfisher House, Radford Way,
Billericay, Essex, CM12 0EQ

T: 01277 650 697
E: info@ground-control.co.uk
www.ground-control.co.uk

Author	Alan Richardson Dip Arb L4 (ABC)Tech.Arbor.A Senior Arboriculturalist		
Author Contact Details	Ground Control Limited, Kingfisher House, Radford Way, Billerica, Essex, CM12 0EQ M: 07795485769 T: 01277 650697 E: alan.richardson@ground-control.co.uk www.ground-control.co.uk		
Issue Status	Issue	Date	Status
	1	05/07/2019	Planning
	2	15/10/2019	Planning
Disclaimer	The recommendations contained in this Report represent Ground Control's professional opinions, in exercising the duty of care required of an experienced Arboricultural Consultant. The information contained has been prepared and given in accordance with the author's professional institution's Code of Professional Conduct and the opinions expressed within are true professional opinions. The report has been prepared by Ground Control for the sole and exclusive use of the Client and for the specific purpose for which Ground Control were commissioned. Ground Control accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared. Use of the Report by any other person is unauthorised and such use is at the sole risk of the user. The tree survey and this report has been undertaken in accordance with BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations, which are intended to assist decision making with regard to the existing and proposed trees in the context of design, demolition and construction. This report will also assess the potential impact that the scheme may have on the surveyed trees. This survey is not, nor should be taken to be, a full or thorough assessment of the health and safety of trees on or adjacent to the site, and therefore it is recommended that detailed tree inspections are undertaken on a regular basis with the express purpose of complying with the land owner's duty of care and satisfying health and safety requirements.		

Contents

1.0	Arboricultural Method Statement (AMS)	Page 4
1.1	Timing of Operations	Page 4
1.2	Pre-construction Phase	Page 4
1.3	Remedial Tree work	Page 4
1.4	Construction Exclusion Zones (CEZ)	Page 5
1.5	Tree Protection Fencing	Page 5
1.6	Precautions in respect of temporary works	Page 5
1.7	Site access Details	Page 5
2.0	Construction Phase	Page 6
2.1	Contractors parking and deliveries	Page 6
2.2	Site offices/Welfare	Page 6
2.3	Storage	Page 6
2.4	Services	Page 6
2.5	Additional Site Precautions	Page 6
2.6	Site Gradients	Page 6
2.7	Demolition	Page 6
2.8	Hard Surfaces	Page 7
2.9	Contingency	Page 7
3.0	Soft Landscaping	Page 7
3.1	Use of Herbicides	Page 7
4.0	Post Construction Phase	Page 7
4.1	Arboricultural Site Supervision/ Monitoring	Page 7
5.0	Responsibilities	Page 8
6.0	Document Control	Page 9

Appendices

Appendix 1	Tree Constraints & Protection Plan	Page 10
Appendix 2	Specification for Tree Protection Fencing	Page 12
Appendix 3	Tree work during Bird Nesting season.	Page 14

References	Page 15
-------------------	----------------

British Standards	Page 15
--------------------------	----------------

1.0 Arboricultural Method Statement (AMS)

(For Tree Protection for the entire duration of construction works)

- 1.0.1 The Arboricultural Method Statement (AMS) includes a Tree Constraints and Protection Plan (TCPP – Refer to Appendix 1). This identifies;

- *Trees to be retained*
- *Protective fence positions and construction exclusion zones (CEZ)*

1.1 Timing of Operations

Activity within the site shall be phased according to the following schedule:

- *Phase 1. Pre-Construction Phase*
- *Phase 2. Undertake all specified tree works, including tree removals.*
- *Phase 3. Install the tree protection fencing.*
- *Phase 4. Construction phase.*
- *Phase 5. Re-grading of car park with removal of protection fencing to T1 & 2.*
- *Phase 5. Undertake main landscaping operations.*
- *Phase 6. Project snagging.*
- *Phase 7. Remove Tree Protection fencing*

1.2 Pre-construction Phase

- 1.2.1 The location of underground services and tree protection needs to be approved by the local planning authority prior to the commencement of any works on site.

1.3 Remedial Tree work

- 1.3.1 Tree works shall be undertaken in advance of all construction activities. Works recommended for this site include:
- Removal in sections T3, T9, T10, T11, T12, & T14.
 - Crown lift to 4m over car park of T1
 - Removal of T13 (category U tree recommended for removal).
- 1.3.2 Dismantling and removal works must be carried out in accordance with BS 3998 Recommendations for Tree works (2010).
- 1.3.3 Care must be taken to ensure during tree removal or remedial work that damage to the retained trees and/or disturbance to the RPA is avoided. Precautions shall include dismantling techniques to reduce the risk of accidental damage, and ground protection measures where excessive pedestrian movements or use of plant and machinery might lead to compaction.
- 1.3.4 To avoid adverse impact on retained trees, stumps to be removed within RPAs should not be dug or pulled out but should be ground out.
- 1.3.5 Works to be carried out outside of the bird nesting season (March to September inclusive) unless protocol is followed. (See appendix 3) If necessary the presence of a suitably trained Ecologist if within this period maybe required.

1.4 Construction Exclusion Zones (CEZ)

- 1.4.1 The CEZ will be protected by fencing. No works will be undertaken within the CEZ and must be considered as sacrosanct for the entire duration of the project. This is with the exception of the below works.
- Tree removal works (T3, T9 – T13) to be carried out at the beginning of the work program prior to the installation of protective fencing. Fencing is to be installed following completion of these works. Refer to the above section 1.3 for working methodology.
 - T1 & T2 to have tree protection fencing in place until this section of car park resurfacing is to be carried out. This must be done at the end of the project to provide ground protection. At this point protection fencing to be locally moved and working methodology below adhered to.
- 1.4.2 Removal of existing surfaces must be carried out in sections with care, working backwards over the area, using low impact pneumatic tools under arboricultural supervision, to remove the existing surface. Existing kerbs are to remain in place. If removed project arborist to be consulted regarding replacement options and methodology.
- 1.4.3 Existing sub-base is to be left in -situ. If the sub-base is due to be removed, no excavation will be carried out below the makeup levels, working backwards over the area, so that machinery is not moving over the exposed ground'
- 1.4.4 There are no further planned construction of foundations or installation of services within any CEZ with the exception of T4 where the footpath's RPA incursion is so minimal that any impact is negligible.

1.5 Tree Protection Fencing

- 1.5.1 A protection fence will be erected prior to the commencement of any site activities including before the arrival of any materials or machinery are brought on site for construction.
- 1.5.2 The fence affording protection to T1-2 & T4-8 will have signs attached stating that this is a CEZ and that **no works or construction machinery is permitted within. (See page 11)** The tree protection fences may only be permanently removed following the completion of all construction works.
- 1.5.3 All fences are required to be sited in accordance with the Tree Constraints Protection Plan (TCPP) (see appendix 1). They must ideally be constructed as per BS 5837 2012 and be fit for purpose of excluding all construction activity. (See appendix 2).

1.6 Precautions in respect of temporary works

- 1.6.1 If temporary access is required to a CEZ through unforeseen circumstance, then access may only be gained after consultation with the Local Planning Authority and following suitable ground protection to prevent soil compaction. RPA to be protected by using inter-linked ground protection board placed on top of a 150mm depth woodchip, laid onto a geotextile membrane for pedestrian-operated plant up to gross weight of 2t.
- 1.6.2 Access into CEZ of T1 & T2 is planned on this site when the car park surface is to be resurfaced.

1.7 Site access Details

- 1.7.1 All access is outside of retained trees RPA's.

2.0 Construction Phase

2.1 Contractors parking and deliveries

- 2.1.1 Contractors car parking will take place on site using the existing car park. Ample room for access and turning of delivery vehicles is provided. This is away from any CEZ.

2.2 Site offices/Welfare

- 2.2.1 The site offices, welfare units and any other necessary facilities can be situated at the contractor's discretion but only away from any CEZ. It is my recommendation that the existing car park is used and is placed outside of any RPA & CEZ.

2.3 Storage

- 2.3.1 Storage of materials will take place away from any CEZ

2.4 Services

- 2.4.1 It is not known if there is a requirement for the additional installation of services. Any other routing of services within the development must not be directed to within any other RPA or CEZ.
- 2.4.2 This shall be done after all tree protection fencing is in place but before any other construction is undertaken so that there is electrical power and water available for welfare and equipment.
- 2.4.3 Undisclosed siting of above ground services such as lighting, CCTV, electrical sub stations or other infrastructure requirements can lead to unnecessary pruning of tree crowns or root loss during or post development. No such requirements will take place adjacent to or within the RPA's of the retained trees unless already mentioned.

2.5 Additional Site Precautions.

- 2.5.1 The installation of services near any tree will be undertaken in accordance with the National Joint Utilities Group Guidance note 10 recommendations in relation to trees. There are no other services planned to be installed within a CEZ.
- 2.5.2 No storage of materials, lighting of fires will take place within the CEZ or adjacent to an RPA. No mixing or storage of materials will take place up slope of and where they may leak into a CEZ. It is suggested that all storage is done in the car park away from any CEZ with bunding to be used where required.
- 2.5.3 Materials which may contaminate the soil shall not be discharged anywhere on site.
- 2.5.4 No fires will be lit within 20m of any tree stem and will take into account fire size and wind direction so that no flame comes within 5m of any foliage.
- 2.5.5 High-sided vehicles or cranes are not anticipated. There must be no incursions into drip line, CEZ or RPA's.
- 2.5.6 No notice boards, cables or other services shall be attached to any tree.

2.6 Site Gradients

- 2.6.1 There shall not be alterations to soil levels within the CEZ or RPA's of the retained trees.

2.7 Demolition

- 2.7.1 There are no demolition requirements within any CEZ as part of this construction.

2.8 Hard Surfaces

- 2.8.1 Adjacent to T1 & 2, removal of existing surfaces and their re-surfacing must be done at end of the project to provide ground protection. Removal of existing surfaces shall be carried out in sections with care, working backwards over the area, using low impact pneumatic tools under arboricultural supervision, to remove the existing surface.
- 2.8.2 Existing sub-base is to be left in-situ. If the sub-base is due to be removed, no excavation shall be carried out below the makeup levels, working backwards over the area, so that machinery is not moving over the exposed ground'
- 2.8.3 All existing kerbs are to be retained in place throughout these works.

2.9 Contingency

- 2.9.1 Any problems or necessary changes that may affect any retained tree, CEZ or RPA must be carried out only after the project consultant has been advised. Further consultation with the local planning authority may be required.
- 2.9.2 Spill kits must be made available to limit contamination of materials. Water will be available on site and can be used to flush spilt materials through the soil and avoid contamination to tree roots. The project arboricultural consultant must be contacted.

3.0 Soft Landscaping

- 3.0.1 Soft landscaping shall be carried out after the completion of main construction activities on site and done in accordance with a landscape plan to be approved by the local planning authority. No landscape works should be done within CEZ and RPA's. If minor planting is carried out then this must be done using hand tools.
- 3.0.2 Tree loss of the six category C trees will take place as a result of the development with another additional tree recommended for removal as a category U tree.

3.1 Use of Herbicides

- 3.1.1 No herbicides shall be used within any CEZ or RPA. If used elsewhere they shall only be mixed outside of CEZ and RPA's and applied in accordance with manufacturers recommendations and with due regard to current pesticide regulations.

4.0 Post Construction Phase.

4.1 Arboricultural Site Supervision/ Monitoring

- 4.1.1 In accordance with BS 5837:2012 sec 6.3 there shall be an 'auditable system of arboricultural site monitoring. This shall extend to arboricultural supervision whenever construction and development activity is to take place within or adjacent to any RPA'.
- 4.1.2 It is our recommendation that a Project Arborist is appointed to offer practical onsite advice and monitor the works during the development period. It is recommended that telephone/ email advice is available throughout the development works in relation to all site wide tree matters and specific site attendance at the following work stages:
- *Pre start meeting*
 - *Location and erection of suitable barrier/ tree protection noted above.*
 - *Construction of any to be determined landscape proposals*
 - *Completion where upon any further post completion management/ monitoring works will be identified if appropriate.*

- 4.2.3 A written 'site visit' record is to be prepared and issued following each monitoring visit. Record to include the following details;
- *Date of Survey*
 - *Description of Works undertaken & monitored (including photographic record).*
 - *Any actions agreed*
- 4.2.4 Post Development Management (BS5837:2012 sec 8.8.3)
- 4.2.5 It may be appropriate to introduce a program of inspections to monitor the health of the trees in the longer terms to check for signs of decline and offer any future recommendations. The supervising arboricultural consultant shall determine the necessity of this action during the course of the construction works.

5.0 Responsibilities

- 5.1 It will be the responsibility of the main contractor to ensure that the planning conditions attached to the planning consent are adhered to at all times and that a monitoring regime in regards to tree protection is in place, preferably with a nominated project arboricultural consultant.
- 5.2 The main contractor will be responsible for contacting the local authority at any time if issues are raised related to trees on site, preferably with advice from a nominated project arboricultural consultant.
- 5.3 With regards to any other tree works outside of those mentioned, if further permission is required outside of the development planning permission, further permission must be sought from the local planning authority prior to the commencement of works on site.
- 5.4 The main contractor will ensure the construction sequence is appropriate at all times to ensure that no damage occurs to the trees during the construction phase. Tree fences and existing surfaces as ground protection shall remain in place until completion of all construction works on site.
- 5.5 Protection fencing and signs must be maintained in position at all times and checked on a regular basis by a designated person and recorded within the written 'site' record.
- 5.6 The main contractor shall post in a prominent position, an A3 laminated Tree Constraints and Protection Plan (TCPP) (see appendix 1) and brief construction sequence so that all site employees and sub-contractors are aware of its detail.
- 5.7 The main contractor shall carry out "tool box talks" so that all site employees and sub-contractors are aware of the Tree Protection Plan (TPP) (see appendix 1) and brief construction sequence (1.1) so that all site employees and sub-contractors are aware of its detail.

5.8 Use of Sub-Contractors

- 5.8.1 The main contractor will be responsible for ensuring sub-contractors do not carry out any process or operation that is likely to adversely impact upon any trees on site

6.0 Document Control Sheet

Project Scope: Arboricultural Method Statement

Project Title: Co-op Havant, Bedhampton

Our Reference: J19-0701

Client: RPM Consult on behalf of Co-op

Status	Version	Prepared By	Date	Reviewed By	Date
Final	1	Alan Richardson	08/08/2019	Chris Chippendale	12/08/2019
Rev A	2	Megan Kavanagh	15/10/2019	Chris Chippendale	15/10/2019

Author Contact Details:

*Alan Richardson Dip Arb L4 (ABC) Tech.Arbor.A,
Senior Arboricultural Consultant*

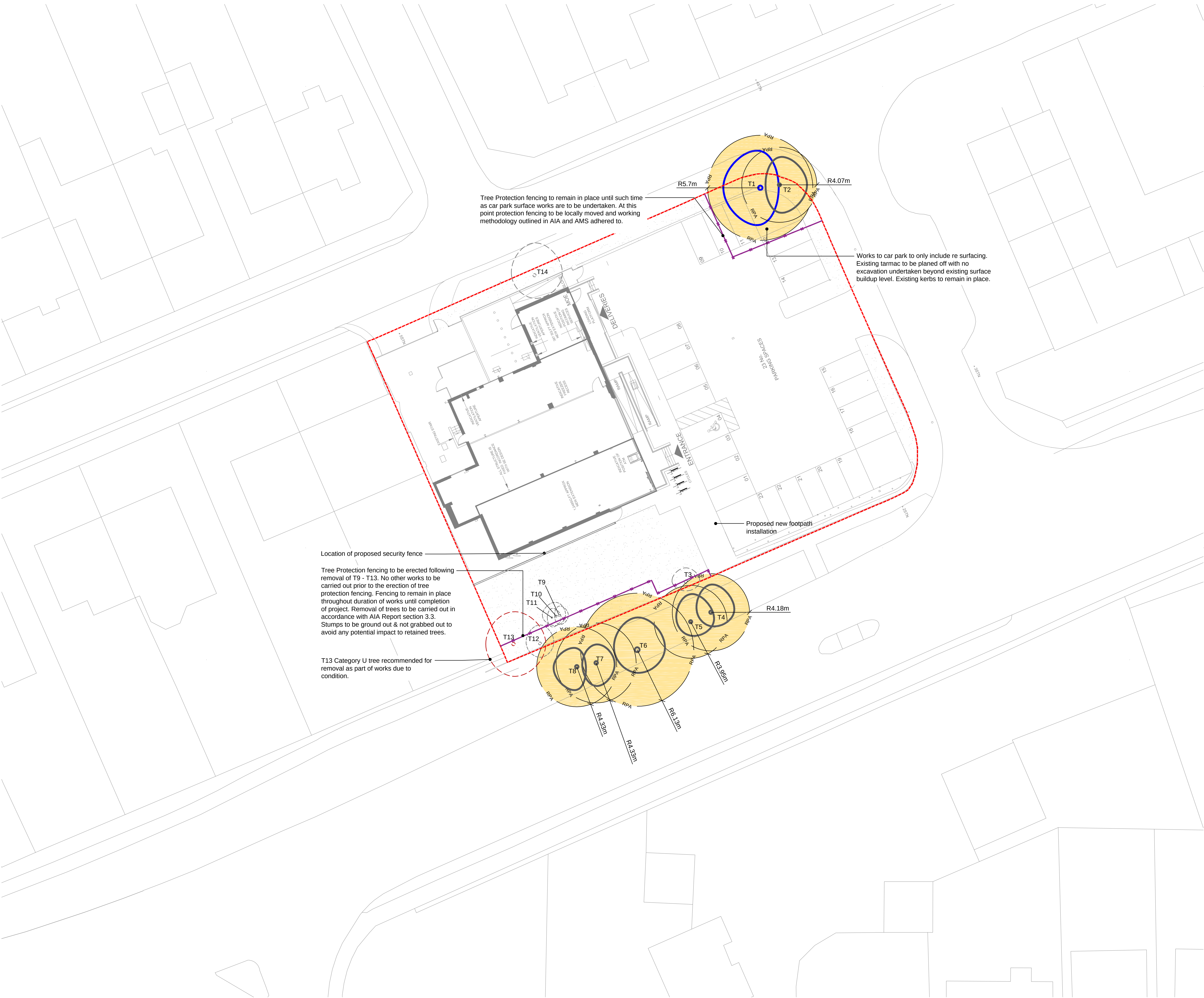
Ground Control Professional Services
Landscape Architecture | Ecology | Arboriculture | GIS & Mapping

M: 07795485769

E: alan.richardson@ground-control.co.uk;

Appendices

Appendix 1 Tree Constraints & Protection Plan (TCPP) Rev A



LEGEND:

- Existing category 'B' trees to be retained
- Existing category 'C' trees to be retained
- Existing category 'U' trees to be retained
- Existing category 'C' trees to be removed
- Existing category 'U' trees to be removed
- Construction Exclusion Zone (CEZ) within Root Protection Area (RPA)
- Proposed tree protection in accordance with BS 5837:2012 (see notes for detailed information).
- Site Boundary

NOTES

- 1.0 DRAWING INFORMATION**
- 1.1 Drawing based on Inspire Design's Site Feasibility Plan drawing 163094 AD07A.
- 1.2 Drawing to be read in conjunction with J190701-GC-DR-3-A-001 - Tree Survey Plan. GC Arboricultural Report.
- 2.0 TREE PROTECTION FENCING:**
- 2.1 All trees requiring protection (as highlighted) to be protected for the duration of the contract in accordance with British Standard BS5837:2012, entitled 'Trees in relation to design, demolition and construction - Recommendations'. Refer to Arboricultural Report for details.
- 3.0 MANUAL EXCAVATION**
- 3.1 Within root protection areas the depths of any excavations, whether for proposed foundations, hard surfacing, planting or underground services shall be undertaken by hand under arboricultural supervision. The soil will be loosened with a pick or fork, and then will be cleared from roots with a compressed air soil pick. All roots will be cut cleanly with a saw or secateurs. The edge of the excavation closest to the trees will be covered with Hessian sacking to prevent drying out, if necessary be shuttered with an appropriate material to prevent soil collapse. Where appropriate, the soil beneath this depth may be sheet piled; and deeper excavation may be undertaken by a machine provided it works from outside the root protection areas.
- 4.0 ARBORICULTURAL SUPERVISION**
- 4.1 The arboricultural consultant will be directly supervising all construction works that have to be undertaken within root protection areas. These include:
- 4.1.1 Location of protective fencing.
 - 4.1.2 Lifting/excavation of existing hard surfaces.
 - 4.1.3 Construction of proposed hard surfaces.
 - 4.1.4 All other excavations, whether for proposed foundations, or underground services
- 5.0 GENERAL SITE OPERATIONS**
- 5.1 The following should be avoided. (BS5837:2012 sec 7 and 8)
- 5.1.1 Material which will contaminate the soil, e.g. concrete mixings, diesel oil and vehicle washings, should not be discharged within 10m of the tree stem.
 - 5.2.2 Fires should not be lit in a position where their flames can extend to within 5 m of foliage, branches of trunk. This will depend on the size of the fire and the wind direction.
 - 5.3.3 Notice boards, telephone cables or other services should not be attached to any part of the tree.

A	Updated to suit Client request.	15.10.19	MK	CC
Rev.	Changes	Date	Dr by	Ap by



Ground Control
Ecology
Landscape Architecture
GIS & Mapping

Ground Control Ltd, Kingfisher House, Radford Way, Billericay, Essex CM12 0EQ
T: 01277 650 697 E: info@ground-control.co.uk www.ground-control.co.uk



Project (Address)
**Co-Op Havant
Bedhampton RD
PO9 3PT**

Drawing title
Tree Constraints and Protection Plan

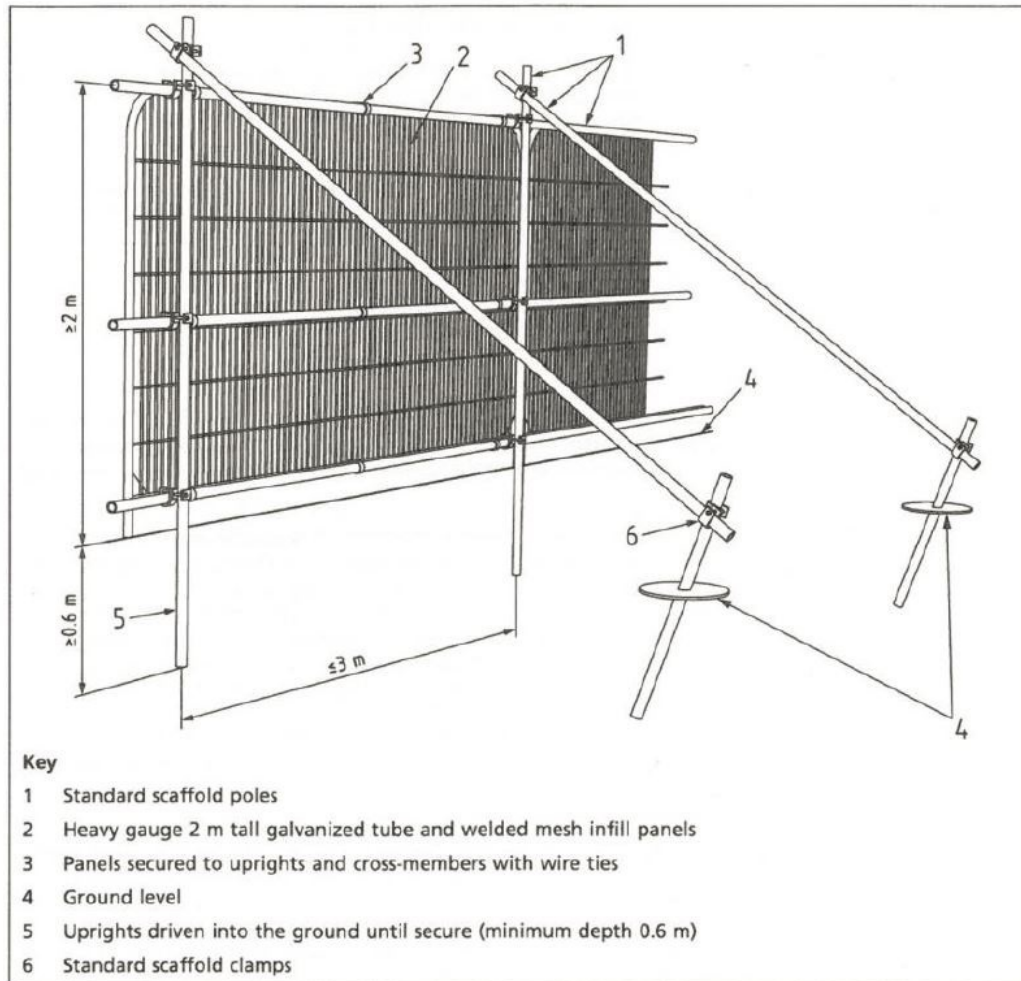
Date	Drawn by	Checked by	Scale(s)
August 2019	IH	CC	1:200 @ A1
Drawing No.	Rev	Issue Status	
J190701-GC-DR-3-A-002	A	Planning	

- Notes:
- © This drawing is the copyright of Ground Control Ltd and cannot be reproduced in any form without express consent of the company.
 - Do not scale off this drawing. All written dimensions are to be checked on site prior to commencing works.
 - All discrepancies, errors or omissions are to be reported for clarification before proceeding.



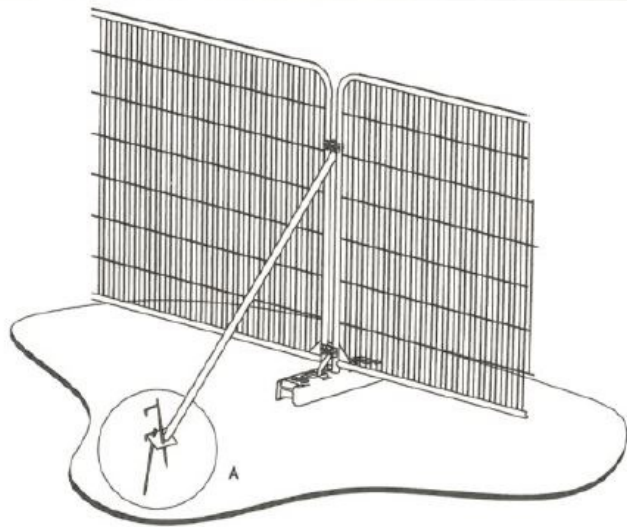
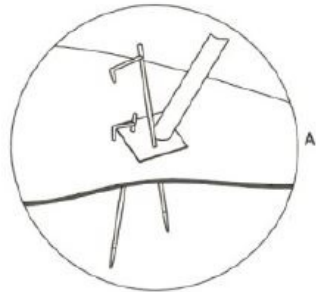
Appendix 2 Tree Protection Fencing

Default specification for protective barrier

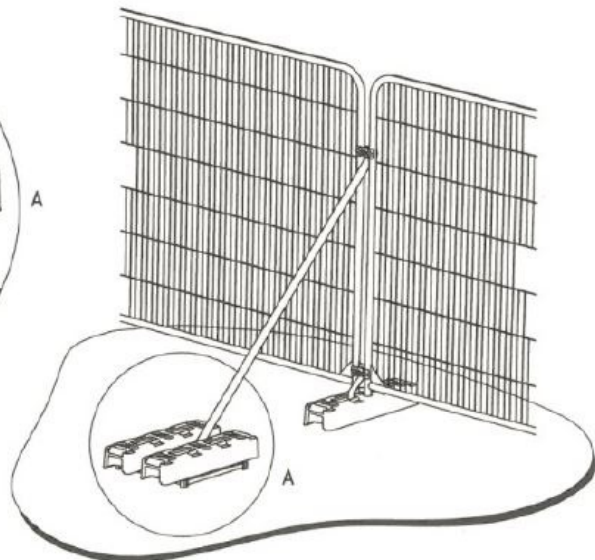
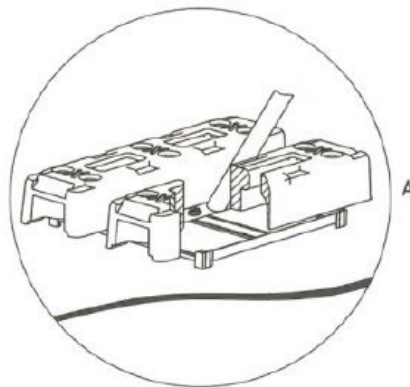




Examples of above ground stabilizing systems



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

Appendix 3

Tree work during Bird Nesting season.

During the bird nesting season, the procedure leading up to tree works should involve;

- *Work within dense vegetation should be avoided.*
- *Generally trees and shrubs being worked upon should be single individuals that can be observed in full, or completion of coppice work where clear views through and into beds to be coppiced can be obtained.*
- *Those undertaking the work need to look for presence of nests and for birds flying in and out of the tree returning with food or bedding material. Slowly circle the tree/shrub, again inspecting the tree/shrub for indications of nesting.*
- *Move closer (or underneath) the tree/shrub, again slowly circle the tree/shrub looking for nesting and also nesting opportunities such as holes.*
- *If at any time, an active nest or a nest that is being built is observed, the tree/shrub must not be worked upon.*
- *If a nest is observed that it is quite clearly an old or abandoned nest (not maintained/falling apart or clearly not being used – time of year will be a consideration), the tree/shrub may be felled.*
- *If the selected tree/shrub is part of a group or immediately adjacent to tree/shrubs, these too should also be inspected for nests. For example felling one tree could expose a nest to a change in micro-climates or predators.*
- *Regarding larger mature trees it should be our aim to work on these trees out of the regular nesting season. However if for health and safety reasons or perhaps responding to wind damage, work should continue with caution. The tree should be continually observed for nests and bird activities.*
- *Holes in the trunk/branches should be viewed with suspicion and use of endoscopes (by a trained ecologist) should be employed to investigate such features further. If a tree is found in a dangerous condition that contains a nest, where possible the work should continue without disturbance to the nest and within the shortest possible time. Where there is possibility that the nest may be physically disturbed, advice should be taken from an ecologist.*
- *When working in areas that might be deemed sensitive (working in mature trees) or larger scale jobs (i.e. removing groups of singular trees) using photographs or written documentation is recommended.*

References

Building Research Establishment, (2011), BR 209, Site layout planning for daylight and sunlight: a guide to good practice.

British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendations.' BSI

British Standard 3998:2010 'Recommendations for Tree Work'. BSI

DCLG (2000) 'Tree Preservation Orders – A Guide to the Law and Good Practice'.

Mattheck, C. Breloer H., (1994) The Body Language of Trees, Forestry Commission.

Mattheck, C. (2007), Updated Field Guide for Visual Tree Assessment

Strouts R. G., Winter T. G. (1994), Diagnosis of Ill Health in Trees, 2nd Ed., DETR

Lonsdale D., (1999), Principles of Tree Hazard Assessment and Management, DETR

International Society of Arboriculture's Best Management Practices for Tree Risk Assessment

National Joint Utilities Group publication # 10 (1995), Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees. Downloadable at www.njug.demon.co.uk/pdf/NJUG%20Publication10.pdf

Tree Roots in the Built Environment (2006) J Roberts, N Jackson, M Smith

British Standards

BS 5837: 2012. Trees in Relation to Design, Demolition and Construction-Recommendations.

Bs 3998: 2010. Recommendations for Tree Work.

BS 3936: 1992. Nursery Stock. Part 1: Specification for Trees and Shrubs.

BS 3936: 1992. Nursery Stock. Part 10: Specification for Groundcover Plants.

BS 4043: 1989. Transplanting Root-balled Trees.

BS 8004: 1986. Foundations.

BS 8103: 1995. Structural design of Low-Rise Buildings.

BS 8206: 1992. Lighting for Buildings.

BS 3882: 2007. Topsoil.

BS 4428: 1989. General Landscaping Operations (excluding hard surfaces).



Vegetation Management
Arboricultural Services
Ecological Services
Grounds Maintenance
Landscape Construction
Landscape Architecture
Winter Maintenance
Asset Management
Pest Control & Auditing
Fencing & Roofing