



An Arboricultural Method Statement at

Abbey Gardens  
Lady Lane  
Swindon  
SN25 2DW

March 2024

Prepared for Mr Peter Mapson

Prepared by Mark Sharples BSc, Tech Cert (Arbor.A.), Dip Arb (RFS), MArborA.

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# 1 INTRODUCTION

**1.1 Brief:** I am instructed by Mr Peter Mapson, on behalf of the property owners, to inspect the trees with the potential to be affected by development at Abbey Gardens, Lady Lane, Swindon SN25 2DW and to provide an arboricultural report.

**1.2 Qualifications and Experience:** I have based this report on my site observations and the provided information, and I have come to my conclusions in the light of my qualifications and my 25 years experience in the arboricultural industry. I have the following qualifications in arboriculture, City and Guild's Tree Surgery, Technicians Certificate in Arboriculture (Arboricultural Association) and Professional Diploma in Arboriculture (Royal Forestry Society).

**1.3 Documents and Information Provided:** Mr Peter Albinson provided me with the following documents,

- A site topographic survey
- A proposed site plan

**1.4 Relevant Background Information:** During the site visit Mr Mapson advised me that he proposed to apply to develop the site and Swindon Borough Council had requested a tree survey, Tree Protection Plan, Arboricultural Method Statement, and an Arboricultural Implications Assessment to BS5837.

**1.5 Scope of this Report:** This report is only concerned with a tree assessment based on the criteria in the British Standard 5837 Trees in relation to design, demolition and construction 2012. It includes a preliminary assessment based on a site visit and the documents provided, listed in 1.3 above. Trees and shrubs are living organisms whose health and condition can change rapidly, conclusions and recommendations are only valid for a period of one year. These periods of validity may be reduced in the case of any change in conditions in proximity to the trees or built structures.

**1.6 Limitations of Use and Copyright:** All rights in this report are reserved. No part of it may be reproduced or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, or stored in any retrieval system of any nature, without the written permission of Sharples Tree Services. Its content and format are for the exclusive use of the addressee in dealing with this site. It may not be sold, lent, hired out or divulged to any third party not directly involved in this site without our written consent.

## 2 SITE VISIT AND OBSERVATIONS

- 2.1 Site Visit:** My assistant, Katie Sharples, and I carried out a part accompanied site visit on 22<sup>nd</sup> March 2024 in the presence of Mr Mapson and the property owner. All my observations are from ground level without detailed investigations, I visually inspected the significant trees using binoculars to examine the aerial parts, a nylon faced sounding hammer and a thin metal probe to test external tissue resistance. I measured all dimensions unless otherwise indicated. I had access to trees outside the boundary and was able to inspect them in same way as the trees in the site. The weather at the time of the inspection was overcast with good visibility.
- 2.2 Brief Site Description:** Lady Lane is a busy access road on the outskirts of Swindon, it forms the northern boundary of the site. Abbey Gardens consists of a detached property with a range of outbuildings, they are centrally set to the north of a large walled plot. The house is pebble dashed with an interlocking clay tile roof. The garage is of similar construction with a flat felt roof. There is a tarmac entrance drive off Lady Lane leading to the garage, there is a second site entrance on the eastern boundary off Main Drive, a quiet residential road. The garden areas are enclosed by a large Cotswold stone wall, this was constructed in the 1850's when the site was a kitchen garden to the large neighbouring property. The general nature of the locality is medium density residential and the property is different from others in the vicinity. The garden areas and adjacent land contain a variety of maturing and mature trees and shrubs.
- 2.3 Tree Identification and Observations:** I visually inspected the trees with the potential to be affected and recorded the information on the Tree Schedule included as Appendix 1. The trees are categorised according to the cascade chart, Table 1 in the British Standard 5837 included as Appendix 2.
- 2.4 Location of the Trees:** I have illustrated the locations of the trees with the potential to be affected on the Tree Constraints Plan, drawing number AG/TCP. The plan is for illustrative purposes only and it should not be used for directly scaling measurements. All the relevant information is contained within this report and the provided documents.

## 3 TREE CONSTRAINTS PLAN

- 3.1 Drawing:** The included Tree Constraints Plan, AG/TCP, illustrates the above and below ground constraints that the trees pose to the development.
- 3.2 Root Protection Area (RPA):** These are calculated in accordance with the criteria in annex C and D of the British Standard 5837 *Trees in relation to design, demolition and construction 2012*. The table calculates the radius of a circular area of soil to be protected prior to the commencement of any works in order to ensure the trees long term survival, adjustments can be made to this according to the soil topography and pre-existing soil conditions.

**3.3 Canopy Spread:** This is measured at the 4 cardinal compass points and plotted accordingly.

## **4 ARBORICULTURAL IMPACT ASSESSMENT**

**4.1 Overview:** The site has been subject to significant clearance works in recent years primarily due to the disease Ash dieback, Swindon Borough Council were notified of this and raised no objection. The remaining trees on site are of average quality and should not be a significant constraint to development. There are neighbouring trees to the east that are protected by a Tree Preservation Order. The site is surrounded by an over 2m high stone wall, this has foundations to a depth of 860mm. The depth of the wall foundations is demonstrated by the images of a trial pit excavated outside the RPA's in Appendix 3, the location of the trial pit is indicated on the plan AG/TCP. This will limit significant structural roots growing into the site, however given the age of the wall and the surrounding road system, my assumption would be that there will probably be feeding roots that have grown beneath the wall. For this reason, the RPA's have been left as circles as it is considered that the wall foundations would be a similar barrier to growth as the roads so it is uncertain precisely where the roots grow.

**4.2 Tree Removal:** The RPA's of Trees 25 and 26 cross the location of the proposed access driveway, Tree 26 is an Ash tree which is suffering from Ash dieback and Tree 25 is a Lawson Cypress which is displaying significantly reduced vitality. These trees have a limited life expectancy so it is proposed to remove them and mitigate their loss with the planting of trees with a longer life expectancy.

**4.3 Retained Trees:** It is proposed to retain all other trees on site, these are predominantly far enough from the proposals not to be affected, some of them are of poor quality or are growing in unsuitable locations. The RPA's of Trees 28 and 30 are crossed by the driveway and garage of Plot 5, these will require protection for the duration of construction work. This is detailed in the arboricultural method statement.

**4.4 Neighbouring Trees:** Trees 1-10 are growing to the north of the property, between the 2m wall that forms the property boundary and a 1m wall that borders the road. Some of the trees have been pruned to the south where they overhang the garden. The RPA's of Trees 2 and 5 are crossed by the footprint of house of Plot 1, excavation for standard strip foundations in this area has the potential to sever roots, for this reason it is proposed to construct the house on piled foundations. The presence of the wall will force roots to grow deeper so the piles and ground beam should not affect any roots. Trees 11-17 which run outside the eastern boundary of the site are covered by a Tree Preservation Order, this protects all of the trees including their roots. The depth of the wall should limit tree root growth into the site, given the age of the trees, the wall and the surrounding ground coverings, my assumption would be that the larger older trees will have grown roots down and under the wall in search of water and nutrients. Due to this the risk of root severance or damage is low, however

the construction of impermeable surfaces in the RPA's will limit the transfer of water, gases and nutrients to the roots. Construction of a garage for Plot 1 has the potential to significantly damage Tree 11. To prevent this a timber car port with timber uprights and a porous floor will be built instead. The repeated passage of construction machinery and construction work has the potential to compact the soil structure, limiting transfer to the roots. This will be addressed in the arboricultural method statement.

## 5 ARBORICULTURAL METHOD STATEMENT

**5.1 Tree Protection Plan:** The included Tree Protection Plan, AG/TPP is designed to minimise the effects of the development and ensure that the trees to be retained will have an adequate volume of soil for future survival and growth. Areas requiring specific protection measures are hatched and labelled on the plan and detailed in **5.2.2** and **5.2.6**.

**5.2 Tree Protection Measures:** To be carried out in order listed:-

**5.2.1 Tree Surgery:** Under no circumstances shall construction personnel undertake any tree or root pruning operations. Any pruning works to the retained trees that are necessary to complete the building works or for tree management reasons are in the Table below. I advise that any work is carried out by a suitably qualified and insured contractor from the local authority list. The contractor should carry out all tree works to BS 3998 *Recommendations for tree work* (2010).

Tree No	Work Description
13	Crown raise to 5m over entrance
14	Crown raise to 5m over entrance
25	Fell
26	Fell

**5.2.2 Ground Protection:** In order to minimise damage to the roots and soil structure surrounding the neighbouring protected trees and to enable construction, it is proposed to use proprietary ground protection boards laid on a compressible layer such as wood chip. This is intended to be a temporary measure for the duration of construction. There should be no vehicular traffic accessing the site or across the RPA's except on these boards. The protection boards are to remain for the duration of the works. The areas requiring ground protection boards are marked on the Tree Protection Plan, AG/TPP. On completion of all construction work the sections of boarding on the new driveway may be lifted, and the new driveway will be constructed using the no-dig methods, as detailed in **5.2.6**. This is to prevent the construction traffic clogging the pore spaces created in the no-dig drive making it impermeable. The no-dig driveway will only be constructed on completion of construction work.

**5.2.3 Fencing Specification and Location:** Tree Protective Fencing is to be erected prior to any site clearance, demolition or construction works in accordance with the specification in British Standard 5837, included as Appendix 4. The location of the fencing is illustrated on the Tree Protection Plan, AG/TPP. The fencing will be signed and regarded as sacrosanct and will not be removed or altered without approval by the project Arboriculturalist, fence signage is included as Appendix 4. Barriers should consist of a scaffold framework in accordance with Appendix 3, diagram 1, comprising a vertical and horizontal framework, well braced to resist impacts, with vertical tubes spaced at a maximum interval of 3m. Onto this, weld mesh panels should be securely fixed with wire or scaffold clamps. Some of the fence locations indicated are on existing hard surfacing so the above specification will be inappropriate, in these areas fencing as specified in Appendix 3, diagram 2 should be used.

**5.2.4 Restrictions Within RPA's:** Inside the protection area of the boarding and fencing the following shall apply:-

- Ñ No mechanical excavation other than by methods specified in Appendix 6.
- Ñ No excavation by any other means without arboricultural site supervision.
- Ñ No lowering of levels for any purpose.
- Ñ No storage of plant or materials.
- Ñ No storage or handling of any chemical including cement washings.
- Ñ No vehicular access.
- Ñ No fire lighting.

**5.2.5 Additional Precautions:** In addition to the above, further precautions are necessary adjacent to trees:-

- Ñ A 10m separation distance shall be observed between the trees and substances injurious to tree health, including fuels, oil, bitumen, cement (including cement washings), builders sand, concrete mixing and other chemicals.
- Ñ No fire shall be lit such that flames come within 5m of tree foliage.

**5.2.6 No-Dig Driveway:** There is a portion of the RPA of Trees 5, 10, 12 and 15 that will be used as a driveway, parking area and car port, this will be protected by the ground protection boards for the duration of construction. On completion of all construction work the boards may be removed, and the driveway, parking area and car port will be constructed according to the methods detailed in Arboricultural Association Guidance Note 12, included as Appendix 6. Should any roots over 25mm in diameter or occurring in clumps be discovered then consultation with an arboriculturist will be required, as such roots might be essential to the trees health and stability.

**5.2.7 Ground Protection Board Removal:** Ground protection boards will only be removed upon completion of all building construction works.

**5.2.8 Fence Removal:** Tree Protective Fencing will only be removed upon completion of all building construction works.

**5.3 Cranes:** If the use of cranes is necessary they shall be sited so as that no part of the boom, jib or load will swing over the Tree Protective Fencing.

- 5.4 Services:** There will be no installation of services either above or below ground in the RPA's.
- 5.5 Mitigation Planting:** It is proposed to plant 5 standard Silver Birch trees, in the locations indicated on the Tree Protection Plan AG/TPP, to mitigate for the loss of the removed trees.
- 5.6 Future Considerations:** The remaining trees should be inspected on a regular basis by a qualified Arboriculturalist.

## **6 OTHER CONSIDERATIONS**

- 6.1 Trees Subject to Statutory Controls:** If these trees are covered by a tree preservation order or located in a conservation area it will be necessary to consult the local authority before any pruning works other than certain exemptions can be carried out. Any tree work submitted to the Council as part of an application for planning is considered to be notification of work (conservation area) or application for work (TPO). The tree works specified are necessary to enable construction and should be acceptable to the local authority. However, tree owners should appreciate that they may take an alternative point of view and have the option to refuse consent.

## **7 REFERENCES**

British Standard 5837 Trees in relation to design, demolition and construction – recommendations 2012

Tree Roots in the Built Environment by John Roberts, Nick Jackson & Mark Smith

Principles of Tree Hazard Assessment by D Lonsdale 1999

Diagnosis of Ill-Health in Trees by R G Strouts & T G Winter 1994

British Standard 3998 – Recommendations for tree work 2010

The Tree Council: Ash Dieback, an Action Plan Toolkit, Summer 2019

Arboricultural Association Guidance Note 12

**Mark Sharples BSc, Tech Cert (Arbor.A.), Dip Arb (RFS), MArborA.  
For Sharples Tree Services**



## APPENDIX 1

### Tree Schedule

Tree No.	Species	Height (m)	Dia @ 1.5m	Crown Spread				Height of Crown Clearance	Maturity	Structural Condition	Estimated Remaining Contribution	BS 5837 Category Grading	RPA Radius
				N	E	S	W						
1	Cherry Laurel <i>Prunus laurocerasus</i>	6	230	2	2	2	2	3 S	Early Mature	Swamped in Ivy	<10	U	2.8
2	Sycamore <i>Acer pseudoplatanus</i>	20	ms	6	3	5	7	15 S	Medium Mature	Divides at ground level into 2, 260 & 720. Dense Ivy. Crown raised to south.	10-20	B1	9.2
3	Sycamore <i>Acer pseudoplatanus</i>	15	270	2	2	2	1	14	Early Mature	Suppressed by Tree 2	10-20	C2	3.2
4	Ash <i>Fraxinus excelsior</i>	8	ms	3	1	1	1	4 N	Early Mature	Divides at ground level into 2, 320 & 160. Ivy. Southern stem topped at 3m. Evidence of Ash dieback.	<10	U	4.3
5	Sycamore <i>Acer pseudoplatanus</i>	19	ms	2	2	2	2	15 S	Medium Mature	Divides at 0.5m into 3, 320, 410 & 410. 4th stem failed at 0.5m. Dense Ivy. Pruned to south.	20-40	B/C1	7.9
6	Sycamore <i>Acer pseudoplatanus</i>	3	290	0	0	0	0	-	Early Mature	Dense Ivy. Topped at 3m.	<10	U	3.5
7	Sycamore <i>Acer pseudoplatanus</i>	18	490	5	3	1	3	7 n	Medium Mature	Dense Ivy. Snapped top hung up in canopy.	10-20	B/C2	5.9
8	Sycamore <i>Acer pseudoplatanus</i>	18	ms	2	3	3	3	15 S	Medium Mature	Divides at 0.5m into 2, 300 & 390. Dense Ivy. Pruned to south.	10-20	B/C2	5.9
9	Horse Chestnut <i>Aesculus hippocastanum</i>	15	ms	7	7	3	3	4 E	Medium Mature	Divides at ground level into 3, 350, 430 & 460. Dense Ivy. Pruned to south.	10-20	B/C2	8.6
10	Holly <i>Ilex aquifolium</i>	7	180	2	3	3	0	2 E	Early Mature	Large cavity at base south side.	<10	U	2.2
11	English Oak <i>Quercus robur</i>	6	120	2	2	1	2	2	Semi Mature	Suppressed by Tree 9.	20-40	C1	1.4

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Tree No.	Species	Height (m)	Dia @ 1.5m	Crown Spread				Height of Crown Clearance	Maturity	Structural Condition	Estimated Remaining Contribution	BS 5837 Category Grading	RPA Radius
				N	E	S	W						
12	English Oak <i>Quercus robur</i>	22	1260	8	8	8	8	5 W	Medium Mature	Good specimen tree	40+	A1	15.0
13	Sycamore <i>Acer pseudoplatanus</i>	21	770	4	6	7	5	3 S	Medium Mature	Divides at 2m. Minor damage to buttress west side. Overhanging site entrance.	20-40	B1	9.2
14	Sycamore <i>Acer pseudoplatanus</i>	20	530	3	0	5	7	4 S	Medium Mature	Divides at 3m. Suppressed by Tree 13. Overhanging site entrance.	20-40	B/C1	6.4
15	Norway Maple <i>Acer platanoides</i>	14	340	4	2	2	4	5 W	Early Mature	Previously suppressed	20-40	B1	4.1
16	Holm Oak <i>Quercus ilex</i>	14	490	4	5	4	3	3	Early Mature	Small cavity at base west side	20-40	B1	5.9
17	English Oak <i>Quercus robur</i>	9	170	3	3	3	3	2	Semi Mature		40+	B/C1	2.0
18	Turkey Oak <i>Quercus cerris</i>	18	720	6	7	7	7	8 W	Medium Mature		40+	A1	8.6
19	Goat Willow <i>Salix caprea</i>	17	470	6	2	5	4	2 E	Medium Mature	Previously suppressed to east. Ivy.	<10	U	5.6
20	Lawson Cypress <i>Chamaecyparis lawsoniana</i>	17	390	2	2	2	2	0	Medium Mature		10-20	B/C1	4.7
21	Sycamore <i>Acer pseudoplatanus</i>	14	250	3	2	3	2	4 N	Early Mature	Growing out of base of wall - will continue to damage wall.	<10	U	3.0
22	Juniper <i>Juniperus communis</i>	10	ms	3	3	3	3	2	Dead	Dead	<10	U	3.0
23	Lawson Cypress <i>Chamaecyparis lawsoniana</i>	17	600	3	3	2	3	1	Medium Mature		10-20	B/C1	7.2

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Tree No.	Species	Height (m)	Dia @ 1.5m	Crown Spread				Height of Crown Clearance	Maturity	Structural Condition	Estimated Remaining Contribution	BS 5837 Category Grading	RPA Radius
				N	E	S	W						
24	Yew <i>Taxus baccata</i>	10	ms	2	4	4	4	1	Early Mature	Divides at 0.5m into 2, 180 & 150. Ivy. Suppressed by surrounding trees. Stem removed to north.	20-40	B/C1	3.7
25	Lawson Cypress <i>Chamaecyparis lawsoniana</i>	12	ms	1	2	3	2	2	Early Mature	Divides at 0.25m into 2, 270 & 260. Average vitality.	<10	U	4.6
26	Ash <i>Fraxinus excelsior</i>	19	470	4	4	7	6	2	Early Mature	Swept southwest. Evidence of Ash dieback.	<10	U	5.6
27	Damson <i>Prunus domestica</i> Subsp. <i>insititia</i>	5	50	1	1	1	1	4	Medium Mature	Close to wall. Poor vitality.	<10	U	0.6
28	Apple <i>Malus domestica</i> sp	5	190	3	5	0	0	2	Early Mature	Swept northeast. Previously suppressed.	10-20	C3	2.3
29	Hazel <i>Corylus avellana</i>	12	ms	2	5	3	1	2	Medium Mature	Divides at 0.25m into 4, 150, 180, 210 & 220. Weighted northeast. Previously suppressed. Root plate lifting to southwest.	<10	U	4.6
30	Sycamore <i>Acer pseudoplatanus</i>	18	ms	6	7	7	7	7 S	Medium Mature	Divides at 1m into 2, 560 & 670.	20-40	B1	10.4

# APPENDIX 1

## Tree Schedule Explanatory Notes

- **Measurements:** All dimensions are measured unless otherwise indicated. Measurements are taken with a tape or digital clinometer.
- **Tree Number:** All surveyed trees are numbered and their locations are mapped on the Tree Constraints Plan included as AG/TCP.
- **Species:** The species identification is based on visual observations and the common English name of what the tree appeared to be is listed first, with the botanical name in italics.
- **Height:** Height is measured with a digital clinometer and rounded to the nearest metre.
- **Dia @ 1.5m:** Diameter at 1.5m above ground level and is recorded in millimetres. Diameter is measured with a diameter tape. 'ms' indicates trees or shrubs with multiple stems at 1.5m, the number of stems and their corresponding diameters are recorded in the observations.
- **Crown Spread:** Crown spread is measured in metres and is a maximum radial measurement in the four cardinal points.
- **Crown Clearance:** The height in metres of crown clearance above adjacent ground level.
- **Maturity:**
  - Semi-mature = less than one third life expectancy
  - Early-mature = one third to two thirds life expectancy
  - Medium-mature = last one third of life expectancy
  - Over-mature = older than the average life expectancy for the species
- **Estimated Remaining Contribution:** The estimated number of years left that a tree can safely contribute to the amenity of the site.
- **BS5837 Category Grading:** The trees are categorised according to the cascade chart, Table 1 in the British Standard 5837 included as Appendix 2.
- **RPA Radius:** The radius in metres of the Root Protection Area as calculated by the table in Annex D of The British Standard 5837 2012.

## APPENDIX 2

### British Standard Cascade Chart

Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)	Identification on plan
<b>Trees unsuitable for retention</b> (see Note)		
<b>Category U</b> 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> <p><i>NOTE</i> Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</p>	See Table 2
	<b>1 Mainly arboricultural qualities</b>	<b>2 Mainly landscape qualities</b>
		<b>3 Mainly cultural values, including conservation</b>
<b>Trees to be considered for retention</b>		
<b>Category A</b> <b>Trees of high quality</b> with an estimated remaining life expectancy of at least 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
<b>Category B</b> <b>Trees of moderate quality</b> with an estimated remaining life expectancy of at least 20 years	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), such that they are unlikely to be suitable for retention for beyond 40 years; 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
<b>Category C</b> <b>Trees of low quality</b> with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees with no material conservation or other cultural value



## **APPENDIX 3**

### **Trial Pit Hole**

#### **Photograph 1**

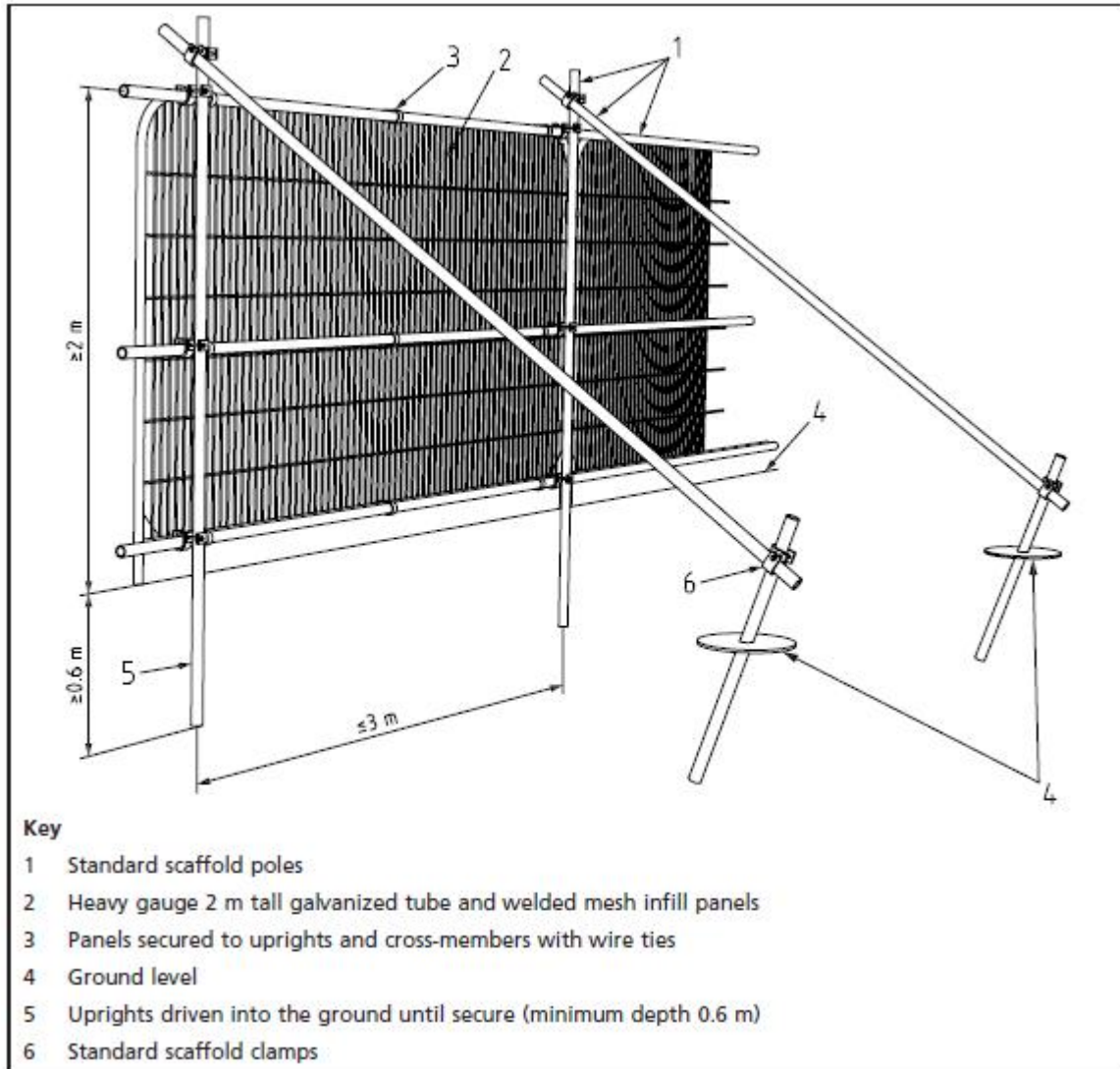


#### **Photograph 2**



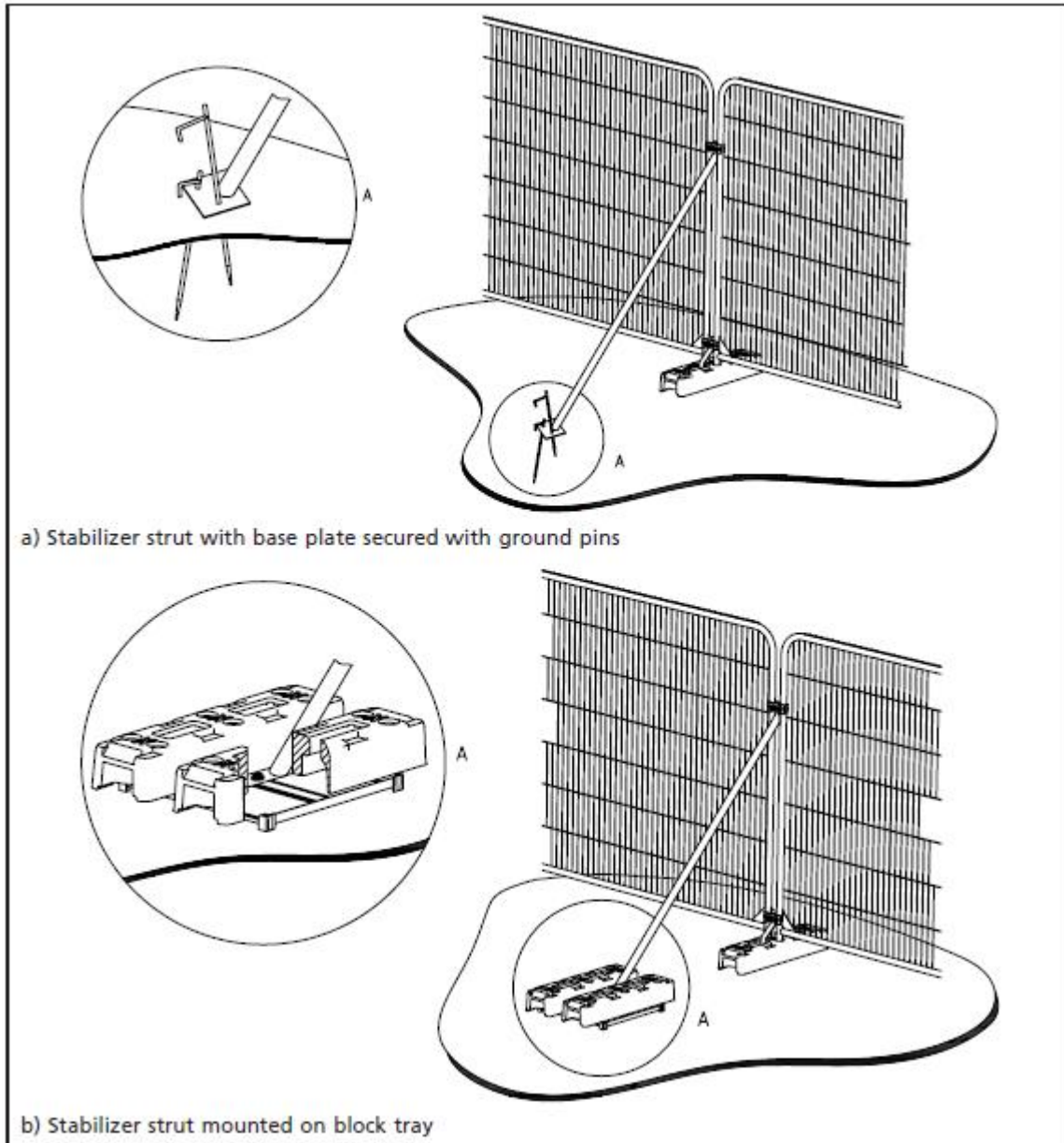
**APPENDIX 4**  
Protective Fencing Specification

**Diagram 1:**



**APPENDIX 4**  
Protective Fencing Specification

**Diagram 2:**





## APPENDIX 5

### Fence Signage



## PROTECTIVE FENCING

THIS FENCING MUST BE  
MAINTAINED IN ACCORDANCE  
WITH THE APPROVED PLANS AND  
DRAWINGS FOR THIS  
DEVELOPMENT.

## APPENDIX 5

### Fence Signage



## APPENDIX 6

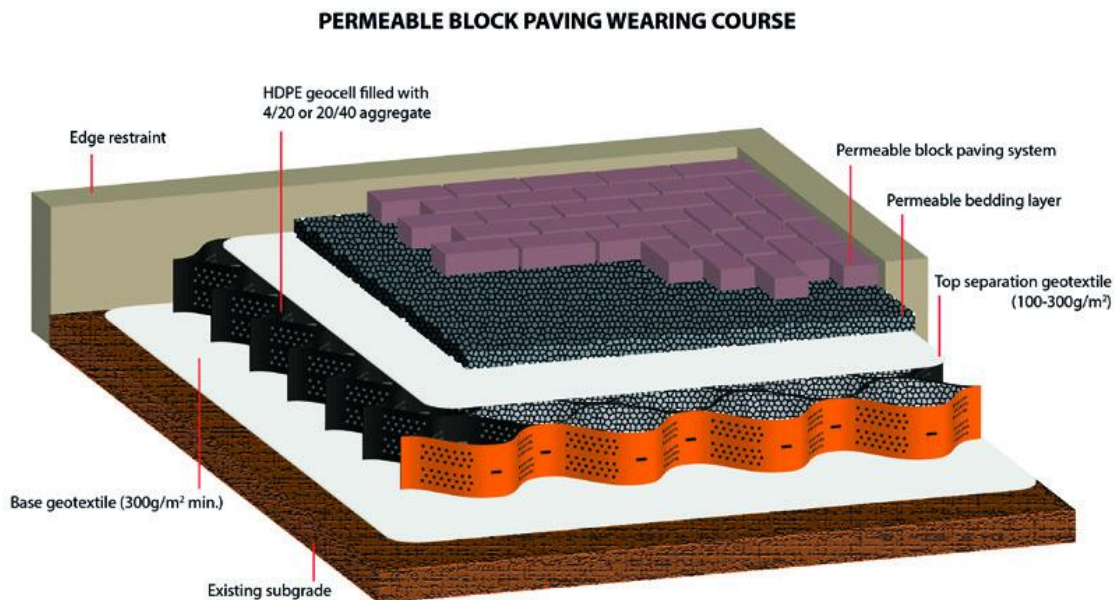
### Arboricultural Association Guidance Note 12

- A suitably qualified engineer should specify the appropriate depth of geocell depending on the bearing capacity and strength of the soil, either the project engineer or an engineer from the geocell provider.
- It is important that the engineer has soil information prior to the surface being installed, the Saturated California Bearing Ratio (CBR) value of the soil will be required.
- Construction should ideally be undertaken in dry weather between May and October when the ground is driest and least prone to compaction.
- It is possible to remove the surface layer of 50mm of turf /surface vegetation under the supervision of the project arboriculturalist to ensure that there is no root damage.
- Ground vegetation could be killed using a translocated herbicide such as glyphosate (Care in the selection of a herbicide that will not affect retained trees is advocated.) To prevent severe oxygen depletion in the soil during the decomposition, all dead organic material should be removed.
- All major protrusions such as rocks and tree/shrub root stumps should be removed. It is proposed that any stumps should be ground out to minimise disturbance.
- Geocell mats need to be laid on level surfaces, the recommended approach is to install the edge restraint followed by the base geotextile and the infill to raise the level to the highest point, sharp sand can be used but deep layers should be avoided. Angular stone aggregate of the same specification as the infill material may be used instead.
- A needle punched non-woven Geotextile underlay will be laid onto the soil over the area of the driveway and car port. If several sheets are required they should overlap by at least 300mm.
- Lay the geogrid or equivalent onto the soil over the whole of the driveway and car port area, staked into place as per manufacturer's instructions.
- Construct a suitable edging such as peg-and-board, wooden sleepers, standard kerbs on top of concrete filled geocells, small concrete edging kerbs or one of the commercially available metal or plastic edging strips.
- The geogrid should be filled with crushed 20/40 mm washed no-fines aggregate. This should be tipped at one end of the geogrid and spread by hand.

## APPENDIX 6

### Arboricultural Association Guidance Note 12

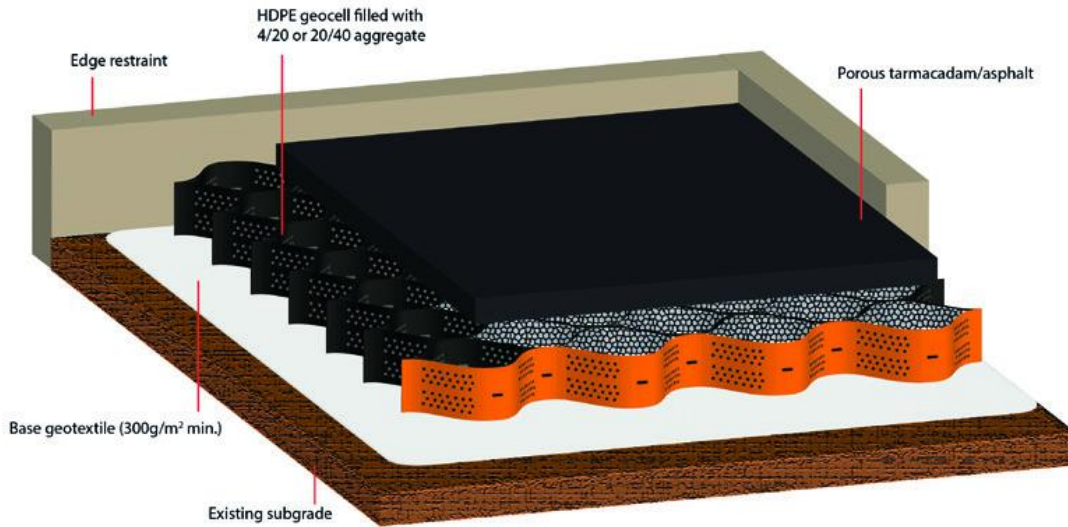
- An excess of aggregate protects the geocells, it is advised that the geocells are overfilled by a minimum of 25mm.
- The granular sub-base material should have a no 'fines' content which means that even when it is compacted it should be freely draining.
- Compact the sub-base to ensure binding with the geogrid and to minimise rutting when in final use. This can be achieved by several passes of a tracked excavator.
- The final surface can be installed after the completion of construction works, a second Geotextile layer should be laid onto the aggregate prior to the spreading of the sand bedding layer in order to prevent sand running into the gaps within the aggregate and reducing the porosity. Paving slabs or brick paviours should be dry bedded onto this sand and joints left unsealed.
- The depth of geogrid required is dependent on the weight of traffic using it. the product manufacturer/project engineer should be consulted on a suitable depth of geogrid appropriate for this site.
- Over time permeable surfaces have the potential to become clogged impairing their function. As a general rule permeable surfaces should be cleaned once a year to remove silt and dirt particles.



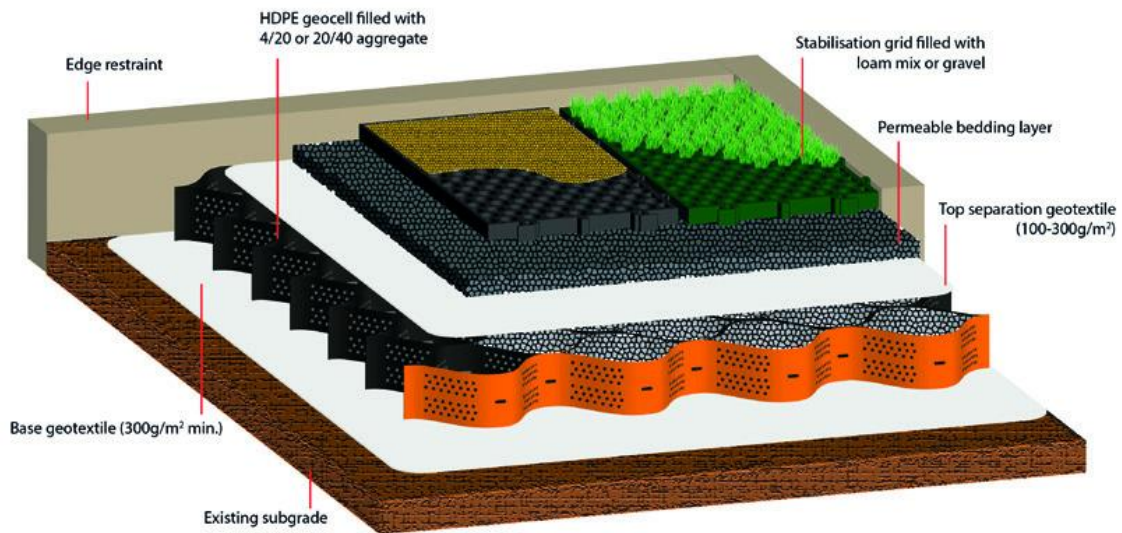
# APPENDIX 6

## Arboricultural Association Guidance Note 12

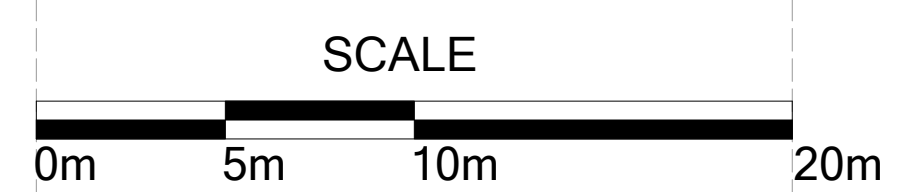
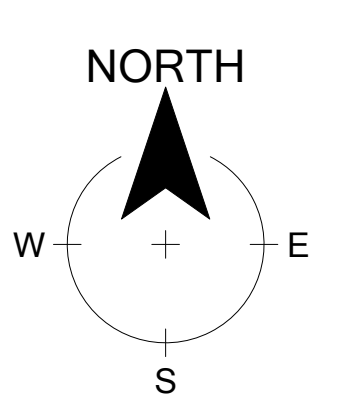
### POROUS ASPHALT WEARING COURSE



### STABILISATION GRID WEARING COURSE FILLED WITH SOIL OR GRAVEL







**LEGEND**

- Tree Location and Number  
○ 11
- BS 5837 Category Grading
  - A
  - AB
  - B
  - BC
  - C
  - U
- Root Protection Area  
○

CLIENT  
**Bower Mapson Homes Ltd.**  
Willow House,  
7 The Avenue,  
Stanton Fitzwarren,  
Swindon,  
Wiltshire,  
SN6 7SE.

JOB TITLE  
Site Layout  
Abbey Gardens,  
Blunsdon,  
Swindon,  
Wiltshire.

**SHARPLES TREE SERVICES**  
Arboricultural Consultants

SCALE  
A0 Sheet @ 1 to 200

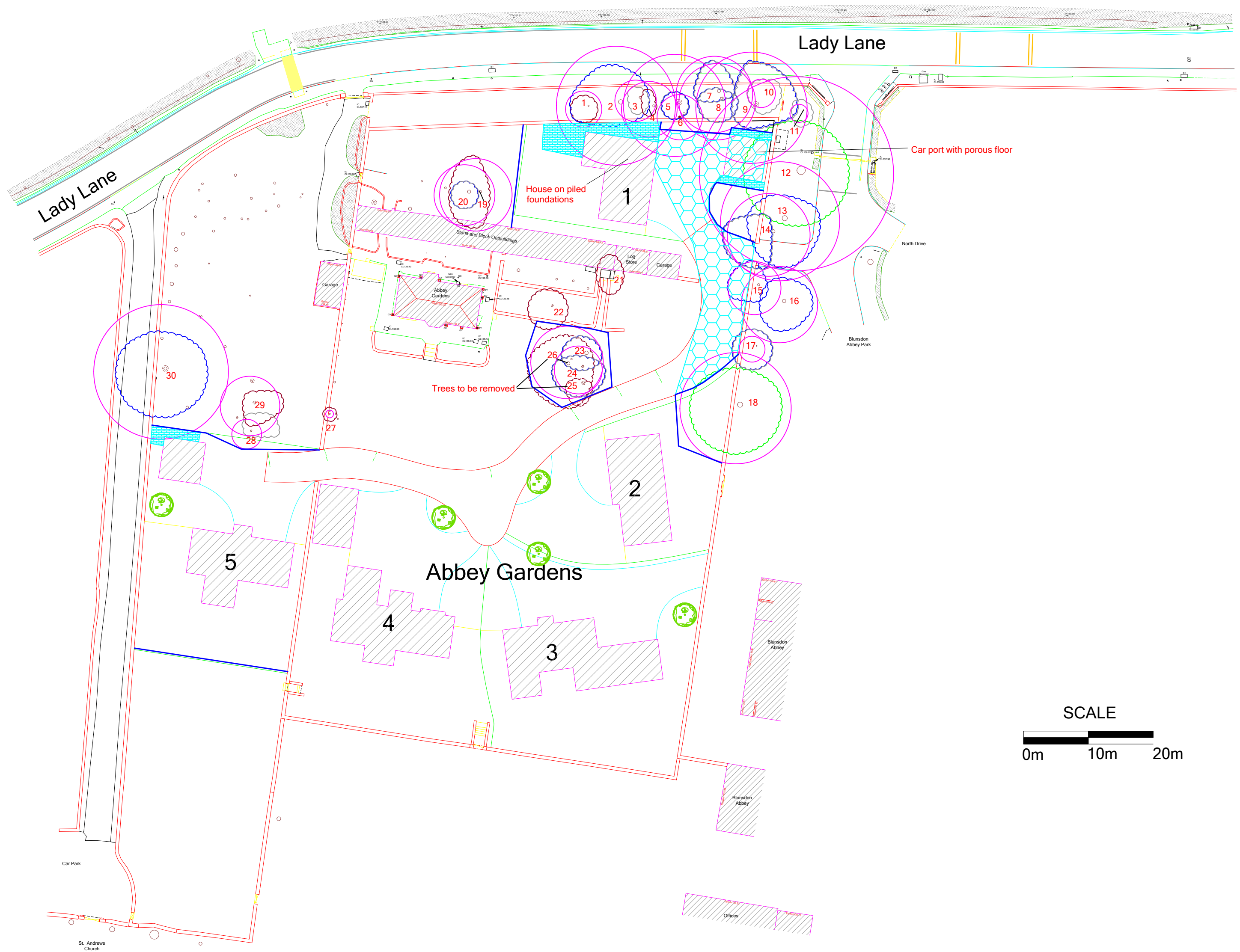
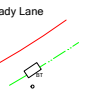
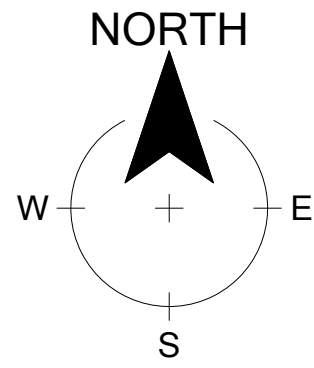
DATE  
March 2024

DRAWN BY  
MJS

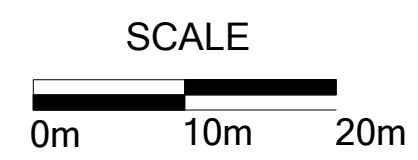
CHECKED BY  
KJS

DRAWING No.  
Tree Constraints Plan





Loyal Close



<p><b>LEGEND</b></p> <p>Tree Protective Fence </p> <p>Ground Protection Boards </p> <p>Ground Protection Boards Followed by No-dig Driveway </p> <p>Mitigation Planting </p>	<p><b>SHARPLES TREE SERVICES</b></p> <p>Arboricultural Consultants</p> <p>Dicketts Road, Corsham Wiltshire, SN13 9JS</p> <p>mark@sharplestreeservices.co.uk www.sharplestreeservices.co.uk</p>	<p>CLIENT <u>Bower Mapson Homes Ltd.</u></p> <p>Willow House, 7 The Avenue, Stanton Fitzwarren, Swindon, Wiltshire, SN6 7SE.</p>	<p>DRAWING NUMBER</p> <p>AG/TPP</p>
		<p>JOB TITLE</p> <p><u>Proposed Layout</u></p> <p>Abbey Gardens, Blunsdon, Swindon, Wiltshire.</p>	<p>SCALE</p> <p>A2 Sheet @ 1 to 500</p> <p>DATE <u>Mar 2024</u> SURVEYED BY <u>KJS/MJS</u></p> <p>DRAWN BY <u>MJS</u> CHECKED BY <u>KJS</u></p> <p>DRAWING No.</p> <p>Tree Protection Plan</p>