

ARBORICULTURAL METHOD STATEMENT

ST JOHN'S SCHOOL, WETLEY ROCKS, STAFFORDSHIRE

A Report to Mr Worthington

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1 OF 2

01 MR WORTHINGTON
02 MIDDLEMARCH ENVIRONMENTAL LTD.

This study was conducted and compiled by
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*This report is the responsibility of Middlemarch Environmental Ltd,
It should be noted, that whilst every effort is made to meet the client's brief,
no site investigation can ensure complete assessment
or prediction of the natural environment*

Contract Number C109232

March 2011

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1. INTRODUCTION

1.1 PROJECT INTRODUCTION

Mr Worthington commissioned Middlemarch Environmental Ltd to undertake an Arboricultural Survey, Arboricultural Implication Assessment (AIA) and Arboricultural Method Statement (AMS) of trees surrounding the proposed redevelopment area at St John's School in Wetley Rocks, Staffordshire. This report represents the AMS element, the Arboricultural Survey and the AIA can be found in Middlemarch Environmental Ltd Report Numbers RT-MME-109232-01 and RT-MME-109232-02 respectively.

It is understood that the development works proposed for the site include the redevelopment of the land for affordable housing (6 units) and associated infrastructure.

1.2 SITE DESCRIPTION

The site of St John's School and associated grounds is located in the village of Wetley Rocks in Staffordshire Moorlands at National Grid Reference SJ 963 493. The site is bordered by St John's Church to the east. Mill Lane abuts the site to the south. Residential property forms the south western boundary which becomes farmland to the west and the northern boundaries.

The survey area was dominated by buildings and hard standing forming the Old School and associated out buildings. Scattered shrub planting was also present within the site. Located within the church grounds abutting the north eastern boundary of the site was a line of mature lime trees (*Tilia x europaea*) these were included within the survey. The eastern half of the study site was dominated by marshy grassland. A line of over mature alder trees (*Alnus glutinosa*) were located on the northern boundary of the survey area and provided an important landscape feature to the area.

2. ARBORICULTURAL METHOD STATEMENT

All trees within and closely surrounding the survey area have been surveyed and each has been identified with a unique number. The location of the trees can be found on Middlemarch Environmental Ltd Drawing Number C109232-03, Appendix 1. The full details of each of the trees, including the Root Protection Area (RPA) can be found in Middlemarch Environmental Ltd Report Number RT-MME-109232-01.

There are no new areas of planting to be specifically protected during the construction phase.

2.1 CONSTRUCTION EXCLUSION ZONE

The Construction Exclusion Zone (CEZ) required by the current edition (2005) BS 5837 Trees in Relation to Construction relates to the stem diameter of each tree (when measured at a height of 1.5 m from ground level) in combination with the canopy spread of the tree. This exclusion zone will ensure that the tree roots and canopy are protected from damage during the construction processes.

The CEZs are defined by the protective fencing and/or ground protection marked on the Tree Protection Plan (TPP), Middlemarch Environmental Ltd Drawing Number C109232-03 (Appendix 1).

The CEZs are to be afforded protection at all times and will be protected by fencing or appropriate ground protection. Where possible works will not be undertaken within any CEZs that causes compaction to the soil or severance of tree roots.

2.2 PROTECTIVE FENCING

The protective fencing will be erected prior to the commencement of any site works e.g. before any materials or machinery are brought on site or the stripping of soil commences. Signs will be installed on the protective fencing to inform site staff of responsibilities and will include the headings listed in Appendix 2. The fencing will remain in place until completion of the main construction phase and then only be removed with the consent of the local planning authority to permit completion of the scheme.

The fencing will ideally be constructed as per Figure 2 in BS 5837:2005 and be fit for the purpose of excluding any construction activity (Appendix 3). Any variation will be agreed with the local planning authority Arboricultural Officer. The local planning authority will be notified in writing once the fencing is in place.

Where protective fencing is to be erected beneath the tree's canopy or within the Root Protection Area (RPA) i.e. within the CEZ, posts will be no closer than 1.0m to the base of the tree and will

utilise scaffolding poles. Any excavations within the RPA will be hand dug. This is to prevent root damage.

The fencing is to be sited in accordance with the TPP Middlemarch Environmental Ltd Drawing Number C109232-03-01 (Appendix 1).

Other than works detailed within this method statement or approved in writing by the local planning authority, no works including storage or dumping of materials shall take place within the CEZs defined by the protective fencing.

2.3 GROUND PROTECTION

Ground protection will be installed in those areas where pedestrian or machinery access will be required within the RPA and is defined on the TPP Middlemarch Environmental Ltd Drawing Number C109232-03 (Appendix 1). Currently no ground protection is proposed.

Any ground protection to be installed must be capable of supporting the expected loads and avoid compaction and damage to the soil.

The primary method of protecting the ground when erecting scaffolding within the RPA is by installing a geotextile fabric and side-abutting scaffold boards on a compressible layer eg woodchip (Appendix 4). The scaffolding may be erected first with uprights placed on spreader boards and the ground protection installed between the uprights.

If wheeled or tracked construction traffic is to be used within the RPA of the retained trees then ground protection will involve the use of a cellular confinement system, reinforced concrete slabs or track board systems details of which are to be specified by an engineer and approved by the local authority before construction commences.

If only pedestrian access is required to the CEZ the ground protection will comprise a single thickness scaffold board on top of a compressible layer laid onto a geotextile fabric. Any variation will be agreed with the local planning authority Arboricultural Officer.

2.4 PRECAUTIONS IN RESPECT OF TEMPORARY WORKS

It is not anticipated that temporary access into CEZ will be required on this site.

If temporary access is required to a CEZ then access will only be gained after consultation with the Local Planning Authority and following placement of materials such as concrete slabs or geo-textile fabrics that will spread the weight of any vehicular load and prevent compaction to the soil. For pedestrian movements within any CEZ then a single thickness scaffold board on top of a compressible layer laid onto a geotextile fabric may be acceptable.

2.5 ACCESS DETAILS

Construction Vehicles

The construction access will be from Main Road and will pass outside the RPAs of the retained trees.

All vehicles will remain on the access road and fencing installed will prevent any accidental encroachment into the RPAs of the retained trees.

2.6 CONTRACTORS CAR PARKING

No contractors parking will occur on site. If any parking on site is subsequently required this will occur on areas of existing hardstanding or on areas outside the CEZs of retained trees which are on or adjacent to the site.

2.7 SITE COMPOUND

The site compound will be located on areas outside the CEZs of retained trees which are on or adjacent to the site.

2.8 STORAGE SPACE

The material storage will be located in the area shown on Middlemarch Environmental Drawing Number C109232-03 (Appendix 1). This is outside the RPA/crowns of the retained trees.

If additional storage areas are required these will utilise existing areas of hardstanding or areas outside the CEZs.

2.9 INFRASTRUCTURE REQUIREMENTS

The exact location of the services was unknown at the time of writing.

If any underground services are to be installed within the CEZs then an arborist will be consulted. The methodology will be in accordance with NJUG Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees (Volume 4, Issue 1, Paragraph 4). This will include hand dug “broken” trenches to ensure that maximum protection is given to tree roots.

2.10 SITE GRADIENTS

No alterations of soil levels will take place within the CEZs.

If site gradient alterations within the RPA of the retained trees are subsequently required then a suitably experienced arborist will be consulted for advice.

2.11 DEMOLITION, HARD SURFACE REMOVAL & REMOVAL OF STRUCTURES

Removal of the Temporary Classroom

The temporary classroom adjacent to Group 1 will be removed. Care will be taken to ensure that the removal of this structure does not impact upon this group.

Machinery used to remove the structures within the vicinity of the crown of this group of trees will employ the following cautionary measures:

- Protective fencing will be erected immediately before and immediately after necessary demolition works;
- Any soft ground within the RPA to be covered with wooden boards whilst machinery operating in the vicinity to prevent any compaction of roots.
- Machinery with large hydraulic arms to be avoided near the crown if possible.
- Any superficial wounds to be cleanly cut with secateurs.
- Foundations or hard surfacing which are removed within the RPA will be removed by hand or with small machinery (i.e. mini-digger).

Removal of Hard Surfaces

Hard surface removal may be required within the vicinity of Trees T5, T6 and T12. Therefore the following methodology will be used.

The initial 'breaking up' of any hard surface within the RPA of the retained trees will be done with low impact pneumatic tools (not breakers attached to diggers or JCBs) or by hand if possible.

Removal of the surface will occur in 2 m bands working from the undisturbed surface. Any exposed roots will be covered with good quality topsoil or high grade compost to avoid desiccation and make the levels good.

The removal of debris will be carried out by hand. Should mechanical means be required due to the size of the debris then a small (1.5 ton) digger may be used providing the bucket does not cause any damage to the underlying soil surface. The vehicle will only travel on undisturbed hard surface (within the RPA), clearing debris as it progresses out of the RPA.

No reduction in levels of the underlying hardcore level will occur.

If any roots are damaged during the removal of hard surfaces then they will be cut using a sharp knife or secateurs to leave a clean wound with as small a surface area as possible.

Work will not be carried out if the ambient air temperature is below + 4°C.

2.12 HARD SURFACES

A small area of proposed private drive will be situated within the RPAs of Trees T5, T6 and T12. To ensure no root damage during construction of these areas of hardstanding the methodology as highlighted within Section 2.11 will be followed if the existing surface is to be removed.

Areas of hardstanding within the RPA of the retained trees will be constructed using a permeable surface treatment. This will allow water and oxygen to penetrate the surface and reduce the chance of carbon dioxide build up causing problems with root function.

2.13 CONSTRUCTION OF BUILDINGS WITHIN THE RPA/CEZ

No buildings are proposed within the RPA/CEZ of retained trees. Therefore standard construction methodology can be used.

2.14 SOFT LANDSCAPING

Any soft landscaping within CEZs will be undertaken by hand. A 500 mm radius from the tree trunk will remain uncovered by turf or other planting to allow penetration of water and air into the soil.

Areas that are proposed for planting that have been compacted will be treated using an aeration remediation system such as Terravent.

2.15 USE OF HERBICIDES

Any herbicide used during the development works shall be systemic, spot applied, and mixed according to manufacturers recommendations.

2.16 ON SITE MONITORING REGIME

All operations will be monitored by the main contractor. The main contractor will ensure that all works within this document are followed (this will be built into the contract specification).

If any issues arise in relation to the retained trees a qualified arborist will be contacted for advice.

2.17 USE OF SUBCONTRACTORS

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 tree on site.

2.18 CONTINGENCY PLAN

Water is readily available on site and will be used to flush spilt materials through the soil and avoid contamination to tree roots. At the time of any spillage the main contractor will contact an arborist for advice.

2.19 REMEDIAL TREE WORKS

Tree works are to be completed prior to commencement of construction works and installation of the CEZ fencing. The proposed works are as follows and all tree works will be carried out in

accordance with BS 3998 (British Standard Recommendations for Tree Work 2010) by a suitably qualified tree surgeon.

Tree Felling

All trees identified for removal on Middlemarch Environmental Ltd Drawing Number C109232-03-01 (Appendix 1) will be section felled to avoid damage to retained trees, stumps will be ground out. As the trees are within third party ownership, permission will be required to be obtained from the legal landowner prior to any proposed arboricultural works. Trees T11, T21 and T22 are highlighted for removal.

Tree T1 (Yew)

Tree T1 will be subject to minimal pruning to create necessary clearance from the adjacent school roof to prevent physical contact with the building.

2.20 RESPONSIBILITIES

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 adopted on site.

The main contractor will be responsible for contacting the Local Planning Authority should any issues are raised related to the trees on site.

If pruning works are required at any time (in addition to those specified) then permission must be sought from the Local Planning Authority first and then carried out in accordance with BS 3998 Recommendations for Tree Works 2010.

The main contractor will ensure the build sequence is appropriate to ensure that no damage occurs to the trees during the construction processes. Protective fences will remain in position until completion of all construction works on the site.

The fencing and signs will be maintained in position at all times and checked on a regular basis by a designated person on site.

2.21 GENERAL PRECAUTIONS

No materials that are likely to have an adverse effect on tree health such as oil, bitumen or cement will be stored or discharged within 10 m of the trunk of any tree that is to be retained.

No fires will be lit within 20 m of the trunk of any tree that is to be retained.

REFERENCES & BIBLIOGRAPHY

Arboricultural Advisory Information Services (AAIS) Practice Note 12 (2007) Through Trees to Development.

BS5837 (2005) Guide for trees in relation to construction

BS3998 (2010) Recommendations for Tree Work

Johnson & More (2004) Tree Guide, Collins, London

Middlemarch Environmental Ltd (2011) Report Number RT-MME-109232-01,
Arboricultural Survey: St John's School, Wetley Rocks.

Middlemarch Environmental Ltd (2011) Report Number RT-MME-109232-02,
Arboricultural Implications Assessment: St John's School, Wetley Rocks.

NJUG Volume 4 (2007) Guidelines for the Planning, Installation and Maintenance of
Utility Services in Proximity to Trees.

APPENDICES

- APPENDIX 1: Tree Protection Plan: Middlemarch Environmental Drawing Number C109232-03-01
- APPENDIX 2: Headings for CEZ Notices
- APPENDIX 3: Details of Protective Fencing
- APPENDIX 4: Details of Ground Protection

APPENDIX 1

Tree Protection Plan: Middlemarch Environmental
Drawing Number C109232-03-01



C109232-03-01

Legend

- Category A tree
- Category B tree
- Category C tree
- Category R tree
- Category B group
- Category C group
- Current canopy extent, tree to be retained
- Current canopy extent, tree to be removed
- Root protection area (RPA)
- Root protection area before 20% offset
- Protective fencing
- Material storage area
- Proposed works

Client	John Pointon & Sons	Project	St John's School, Wetley Rocks
Drawing	Tree Protection Plan	Drawing Number	C109232-03-01
Revision	00	Date	March 2011
Scale at A3	1:1,000	Drawn By	SKS
Approved By	IC	Notes	-



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APPENDIX 2

Headings for CEZ Notices & Example Sign

Root Protection Area (RPA) Model Notice

DON'T excavate within this area
DON'T use any form of mechanical plant within this area
DON'T store materials, plant or equipment within this area
DON'T move plant or vehicles within this area

DO contact the Local Authority Arboricultural Officer or owner of the tree if excavation within this area is unavoidable
DO protect any exposed roots uncovered within this area with dry sacking
DO backfill with a suitable inert granular and top soil material mix as soon as possible on completion of work

ANY WORK in this area requires a permit from the Local Authority Arboricultural Officer



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

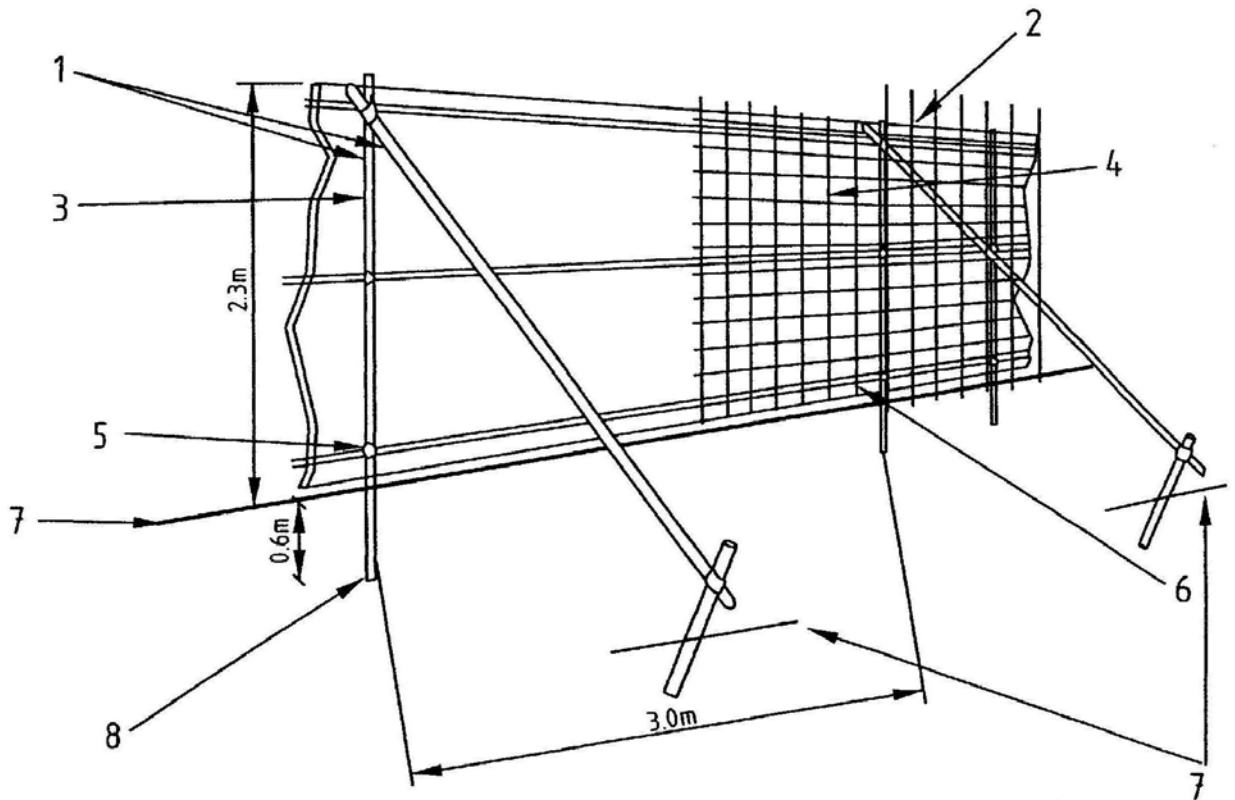


**TREE PROTECTION AREA
KEEP OUT !**

**(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY
PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A
TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY
LEAD TO CRIMINAL PROSECUTION**

**ANY INCURSION INTO THE PROTECTED AREA MUST BE
WITH THE WRITTEN PERMISSION OF THE LOCAL
PLANNING AUTHORITY**

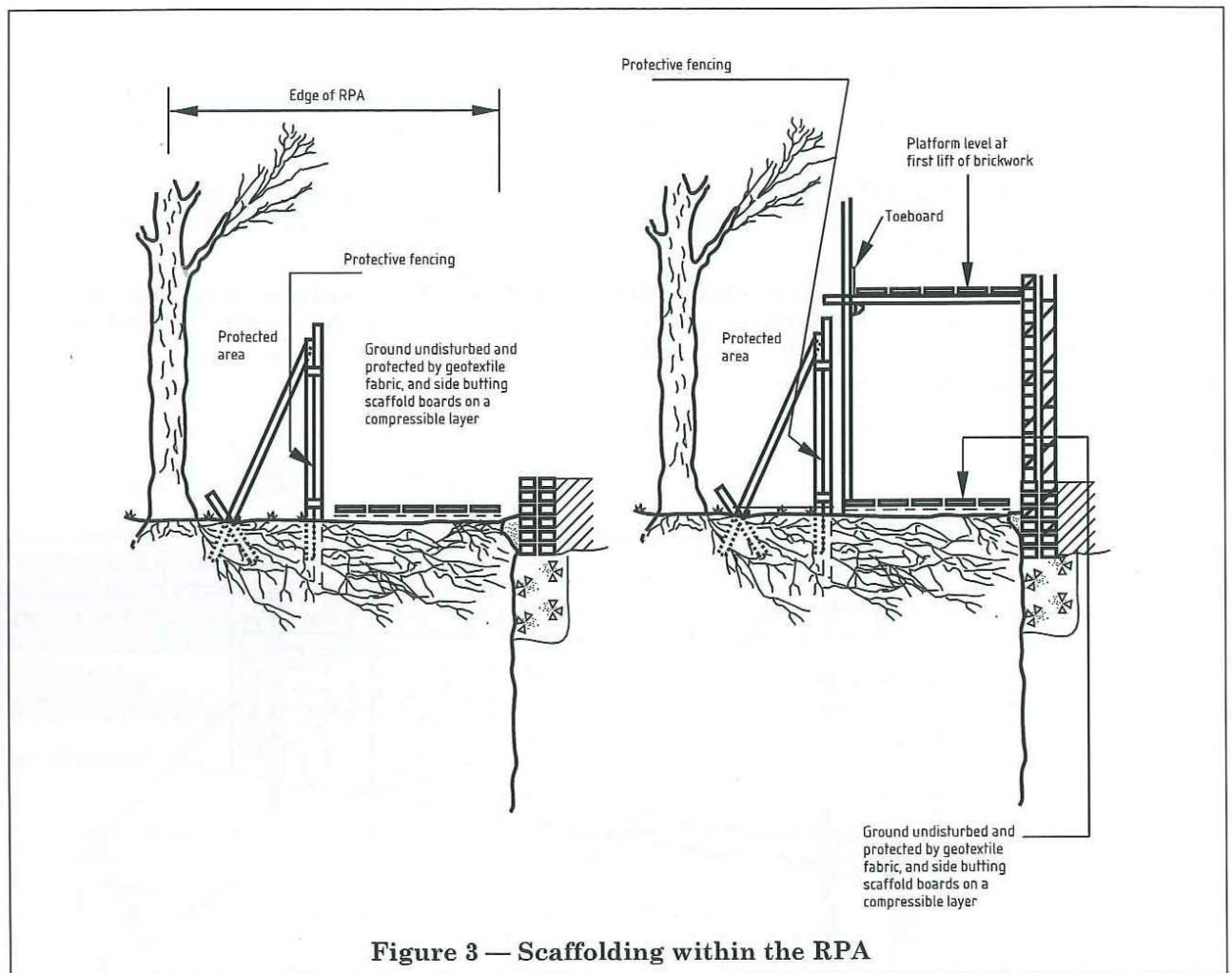
APPENDIX 3
Details of Protective Fencing



- | | |
|--|--|
| 1 Standard scaffold poles | 5 Standard clamps |
| 2 Uprights to be driven into the ground | 6 Wire twisted and secured on inside face of fencing to avoid easy dismantling |
| 3 Panels secured to uprights with wire ties and where necessary standard scaffold clamps | 7 Ground level |
| 4 Weldmesh wired to the uprights and horizontals | 8 Approx. 0.6 m driven into the ground |

Figure 2 — Protective barrier

APPENDIX 4
Details of Ground Protection



MIDDLEMARCH ENVIRONMENTAL LTD

QUALITY ASSURANCE

TITLE: ARBORICULTURAL METHOD STATEMENT

ST JOHN'S SCHOOL, WETLEY ROCKS,
STAFFORDSHIRE

A Report to Mr Worthington

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Checked by:

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