This report must be read in conjunction with the relevant tree plans and schedules for each school.

A generic arboricultural method statement is provided in Appendix 1 to address the process of tree protection on all sites covered by this report.

**Attachments**

<table>
<thead>
<tr>
<th>School</th>
<th>Tree Schedule</th>
<th>Tree Protection Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delapre Primary School</td>
<td>D12-1528 261012 v1</td>
<td>D12-1591 080313 TPP v3</td>
</tr>
</tbody>
</table>

BS5837:2012 Cascade Chart
1 Delapre Primary School

This section should be read in conjunction with the relevant tree protection plan (D12-1591 TPP v2)

1.1 Arboricultural Implications

Delapre Primary School has two mature trees (purple leaf plum and cherry) growing on the southern side of the existing hard play area. Both of these trees have injuries at the base which have been colonised by the fungi, *Phelinus pomaceous*. Both of these trees are growing in within the footprint of the proposed new block, and as such pose a constraint to this scheme.

The trees in question have no arboricultural merit as a consequence of their condition and as such, there are no arboricultural reasons why these two trees should not be removed in order to create the necessary space for the new building. Replacement trees will be planted within the grounds of the school in mitigation for this loss of tree cover.

Two additional small trees in the hedge above the car parking area will also be removed. These trees are located internally to the site and offer very limited visual amenity. They will be replaced by additional new planting on the site and as such, their loss should have no impact on the determination of the planning application.

There are two other trees within the hedge that will be retained, and although the proposed development has no direct impact on these trees, protective fencing will be required to ensure that they are shielded during the construction phase.

Access to the site for construction traffic will not have an impact on any retained tree on this site.

A draft drainage plan has been provided as part of this assessment in order to enable an assessment to be undertaken on the constraints any trees may pose to this plan. No new drains are proposed within or in close proximity to any retained trees on this site.

1.2 Tree Protection Scheme

Written confirmation has been provided that the proposed site works will take place within a secure compound in order to exclude pupils and staff at the school from the areas of construction. These areas have been defined on the attached plan by a red dotted line. All construction activity will take place within these areas and as such, the compounds will form the tree protective fence line.

The timing of the construction works has not yet been determined, and it is possible that works will take place in the school holidays. In this situation, it is unlikely that a secure compound will be erected around the construction zone, and consideration needs to be given to specific tree protection measures.

The two trees to the west of the existing car parking area will be protected by fencing that is fit for the purpose of excluding any activity, person, material or machine associated with the
construction tasks. For a site such as this, Heras fencing (Appendix 2) will be sufficient to provide this protection, provided that it is securely attached and cannot be moved. Appendix 3 provides a recommended method of stabilising such a fencing system as detailed by figure 3 of BS5837:2012. The feet must be anchored to the ground and the panels must be joined using a minimum of 2 brackets. Warning signs must be attached to the fencing stating its purpose. Appendix 4 gives an example of such signage. This fencing will also be constructed around the trees on the northern boundary around the staff car parking area.

All fencing must erected prior to any construction activity commencing, and must not be removed until all construction works have been completed. This means that all construction machinery and materials are removed from the site before the fence is removed. Once the fencing has been erected, there must be no access into the protected area (CEZ). Further details are provided in the generic method statement that accompanies this report.

The loss of four trees on this site will be mitigated through replacement planting. The attached plan shows the indicative location of the replacement trees. These will be planted during the first planting season following completion of the building works, and species selection and size will be suitable to the location and setting of the site.
Appendices

2 Appendix 1 - Generic Arboricultural Method Statement

2.1 Overview

The following explanations relate generically across all the sites covered in Wave 2 of the Northampton School development programme. This AMS should be read in conjunction with the Tree Protection Plan (TPP) for each school.

A copy of this report must be kept on site and be permanently available of the duration of the development. It can be:

- Included in the tender documents to identify and quantify the tree protection and management requirements;
- Used to plan the timing of site operations to minimise the impact on trees, and;
- Referenced on site for practical guidance on how to protect trees.

2.2 Arboricultural Supervision

An arboricultural consultant will be appointed by the developer to advise on the tree management for each site where tree protection is required. The consultant will attend:

- The pre-commencement meeting before any works start;
- Regular supervision as agreed; and
- As needed to oversee specific works that could affect trees

Additionally the consultant may have a supervisory input into the following operations:

- Site preparation, including tree works
- Installation, maintenance and removal of barriers
- Installation, maintenance and removal of ground protection
- Installation of new surfaces
- Installation of new structures
- Installation of new landscaping

2.3 Sequencing and timing

Effective tree protection relies upon following a logical sequence of events and arboricultural inspection/supervision.

The retained arboricultural consultant’s initial role is to liaise with the developer and LPA to ensure the tree protection measures are fit for purpose and in place before any works commence on the site. Once the site is working that role will switch to monitoring compliance with arboricultural planning conditions and advising on any tree problems that arise or modifications that become necessary.

It is the developer’s responsibility to ensure that details of this AMS and any agreed amendments are known and understood by all site personnel.
The final details of supervision and the frequency of inspection visits will be agreed at the pre-commencement meeting. The supervision arrangement will be sufficiently flexible to allow the supervision of all sensitive works as they occur.

The arboricultural consultant will make a record of the visits and these will be attached to the site copy of the AMS for inspection. A further copy will be sent to the LPA. The purpose of these written records is firstly to provide proof of compliance that will allow the developer to robustly demonstrate adherence to best practice in the event of any dispute. Secondly it will help the LPA efficiently discharge the relevant planning conditions.

Table 1 - Sequencing and Supervision

<table>
<thead>
<tr>
<th>Stage</th>
<th>Action</th>
<th>Arboricultural Input Required</th>
<th>Report Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pre-commencement meeting</td>
<td>Attend</td>
<td>2.4</td>
</tr>
<tr>
<td>2</td>
<td>Tree Works</td>
<td>N/A</td>
<td>2.5</td>
</tr>
<tr>
<td>3</td>
<td>Tree Protective Fencing</td>
<td>Inspect</td>
<td>2.6</td>
</tr>
<tr>
<td>4</td>
<td>Construction of special surfaces</td>
<td>N/A</td>
<td>2.7</td>
</tr>
<tr>
<td>5</td>
<td>Specific tree protection measures</td>
<td>Inspect</td>
<td>2.8</td>
</tr>
<tr>
<td>6</td>
<td>Demolition</td>
<td>N/A</td>
<td>2.9</td>
</tr>
<tr>
<td>8</td>
<td>Development Phase</td>
<td>Supervise</td>
<td>2.10</td>
</tr>
<tr>
<td>9</td>
<td>Remove temporary surfaces</td>
<td>N/A</td>
<td>2.11.1</td>
</tr>
<tr>
<td>10</td>
<td>Remove tree protective fencing</td>
<td>Supervise</td>
<td>2.11.2</td>
</tr>
<tr>
<td>11</td>
<td>Landscaping &amp; replacement planting</td>
<td>Discuss with landscape architect</td>
<td>2.11.3</td>
</tr>
</tbody>
</table>

2.4 Pre-commencement meeting

A pre-commencement site meeting involving the land owner, architect, arboricultural consultant, contractors and engineers (as appropriate), and relevant LPA officers will be held to ensure that all aspects of the tree protection processes are understood and agreed.

The meeting is where the details of the programme of tree protection will be agreed and finalised, which will then form the basis of any supervision arrangements between the arboricultural consultant and the developer.

The arboricultural consultant will send a record of the meeting to all parties.

2.5 Tree Removal and Works

The day to day running of the site will take full account of the tree protection measures set out in this document. All site personnel will be briefed on the tree protection requirements as part of the site induction procedure.

The tree management has been specifically designed towards doing the minimum work necessary to accommodate the development structures, establish acceptable levels of safety and reduce the destructive impact of existing trees on adjacent, better trees.

All tree works will be carried out by a suitably qualified contractor, and in accordance with BS3998:2010 *Tree Works – Recommendations* and industry best practice.
2.5.1 Tree Removal

Any trees to be removed are highlighted on each tree protection plan by a red, dashed circle around each tree and a red number.

2.5.2 Tree works

No tree works are required, but minor pruning may be necessary to address unanticipated local problems with individual branches. Any additional works will be assessed and authorised as necessary by the retained arboricultural consultant who will liaise as required with the county council senior environmental planner.

2.6 Barriers and Ground Protection

2.6.1 The Construction Exclusion Zone

The primary means of protecting the Root Protection Area (RPA) of trees is through the use of barriers formed by protective fencing. The enclosed area is the Construction Exclusion Zone (CEZ).

The CEZs are to be afforded protection at all times and will be protected by fencing. The type of fencing is detailed in section 2.6.2, below.

No works will be undertaken within any CEZ that causes compaction to the soil or severance of tree roots.

2.6.2 Tree Protective Fencing

A protective fence will be erected around the trees, prior to the commencement of any site works e.g. before any materials or machinery are brought on site, development or the stripping of soil commences.

The fence will have signs attached to it stating that this is a CEZ and that no works are permitted within the fence (see Appendix 4). No notice boards, cables or other services will be attached to any tree.

The fence is to be sited in accordance with the TPP provided for each site. This is shown as a pink dotted line with diagonal orange hatching indicating the enclosed CEZ (where necessary).

For a project of this nature, it has been determined that Heras fencing will provide the necessary level of protection to the trees, where circumstances require. Details of this type of fencing are provided in Appendix 2.

After the protective fencing and temporary ground protection has been erected, the retained arboricultural consultant will visit the site. The purpose of the visit will be to check that the fencing has been correctly installed so as to provide protection to the trees.

The retained arboricultural consultant will provide a written report confirming satisfactory completion of this task. A copy of this report will be sent to the local planning authority.

The protective fence may only be removed following completion of all construction works.
2.7 Construction of special surfaces

2.7.1 Temporary Ground Protection
If temporary access is required to a CEZ then access may only be gained after consultation with the Local Planning Authority and following placement of materials 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 (eg wood chip mulch) laid onto a geotextile fabric may be acceptable.

2.7.2 Permanent hard surfaces within the RPA
No permanent hard surfaces are required within the RPA of any tree retained at any site.

2.7.3 Additional precautions outside the exclusion zone
Any risk from activities outside RPAs but close enough to have an impact will be assessed during the day-to-day running of the site, and appropriate precautions put in place to reduce that risk.

It is a presumption of this report that all RPAs that have been identified for protection but which lie outside of the protective fencing, will be protected from soil degradation at all times during construction activity.

2.8 Specific tree protection measures

2.8.1 Inspection
After the protective fencing and temporary ground protection has been erected, the retained arboricultural consultant will visit the site. The purpose of the visit will be to check that the fencing has been correctly installed so as to provide protection to the trees. The county council senior environmental planner will also be invited to inspect the tree protection measures prior to any works commencing.

The retained arboricultural consultant will provide a written report confirming satisfactory completion of this task. A copy of this report will be sent to the local planning authority.

2.9 Demolition
There are no demolition works required within or in close proximity to any retained trees on this site.

2.10 Development
Once all trees works and protective fencing have been completed, the developer can commence the on-site preparation works and construction can begin.

2.10.1 Site Storage, Cement Mixing and Washing Points
No storage of materials will take place within a CEZ.

No mixing or storage of materials will take place up a slope where they may leak into a CEZ. Where contours of the site create a risk of polluted water running into RPAs, precautionary
measures of using heavy duty plastic sheeting and sandbags with the ability to contain accidental spillage will be put in place to prevent contamination.

2.10.2 Contractors Parking
Contractors parking will be off-site and will not be within or in close proximity to a CEZ.

2.10.3 Utility Services
All utility services will connect internally to the property. There is no requirement for any service to be installed within a CEZ.

2.10.4 Fires
No fires will be lit on this site.

2.10.5 Site Gradient
There will be no changes to any levels on this site.

2.10.6 Use of Herbicides
There is no requirement for any herbicide to be used on this site.

2.10.7 Use of Sub-contractors
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.

2.10.8 Contingency planning
Water will be kept 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 the retained arboricultural consultant for advice.

2.11 Post Development

2.11.1 Removal of temporary surfaces
All temporary surfaces will remain in place until all construction activity is finished and there is no realistic risk of damage.

Any ground protective measures will be removed progressively, starting at the furthest point from the temporary access road, and working backwards. All operations will take place from on top of the existing temporary surface. This will need to be done carefully to ensure that there is no excavation in the original surface level and there will be no damage to trees.

Once this material has been removed there will be no vehicular access to the site by this route.

2.11.2 Removal of protective fencing
When the development is complete, all drainage and service runs are in place and the main site machinery has been removed, the CEZ protective fencing will be dismantled.
This will be supervised by the retained arboricultural consultant to ensure that no damage to 
done to the protected areas during this process.

2.11.3 Landscaping within the RPA.

The final tidying up and reinstatement can only be carried out when all the protective 
measures have been removed. This means great care is required by the contractors to 
observe tree protection measures.

No machines can be used within the RPAs, which specifically excludes rotavators.

All new planting and soil level variations must be agreed and supervised by the retained 
arboricultural consultant.

2.11.4 Replacement planting and transplanting of existing trees

All replacement planting will be undertaken in accordance with the detailed 
recommendations laid down in Section 7 (Amenity Tree Planting) of BS4428 (1989) – *Code 
of practice for general landscape operations (excluding hard surfaces).*

2.12 Responsibilities

It is the responsibility of the main contractor to ensure that the planning conditions attached 
to 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 at any 
time issues are raised related to the trees on site.

If at any time pruning works are required permission must be sought from the Local Planning 
Authority first and then carried out in accordance with BS3998:2010 *Tree Works – 
Recommendations* and industry best practice.

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 must be maintained in position at all times and checked on a regular 
basis by an on-site person designated that responsibility.

2.13 Completion meeting

Upon completion of all works specified above and all procedures detailed, the Arboricultural 
Consultant will invite the county council senior environmental planner to meet on site to 
discuss the process and agree any final remedial works which may be required.
2.14 Contacts

Shows a list of all relevant contacts for this development:

<table>
<thead>
<tr>
<th>Title</th>
<th>Name</th>
<th>Contact No.</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landowner/Developer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agent/Architect</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LPA Case Officer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LPA Tree Officer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Site Manager</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arboricultural Consultant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ecological Consultant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landscape Designer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tree Surgeon</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

THIS AMS IS NOT A CONTRACT. THE RETENTION OF A QUALIFIED ARBORICULTURIST FOR SUPERVISION AND MONITORING MUST BE AGREED PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY.
Heran® 151 and 151 Steadfast System

Hera 151 is the original concept of temporary fencing back in the 80s, Hera has proof of the reputation as a true innovator. Our latest solution for securing site perimeters and protecting the public has been phenomenally successful since its launch, and offers the ultimate market leading temporary fencing system.

Our latest solution for securing site perimeters and protecting the public has been phenomenally successful since its launch, and offers the ultimate market leading temporary fencing system.

151 System

The key components of the Hera 151 system are as below:

Round Top Panel with Anti-Climb Mesh
- The improved panel of the market, where 3 bullets formed from a continuous length of tube, alternating the top-corner weld, offer the restricted point of traditional panels.

High Visibility Orange Blocks
- Permanently assembled with durable UV-stabilised "Hygro Coping" coated and fitted with solid high-density columns.

Visibly highlights your presence to reduce hazard.
- Reinforced mesh infill - painted coating all sides and papal.

Heran® Anti-Tamper Coupler
- Providing additional security; these couplers can only be removed with the use of a special tool.

151 Steadfast System

The Hera 151 Steadfast System incorporates all the benefits of the Hera 151 system, with the addition of the standard.

Heran® Steadfast Strut
- The unique design of this dryer strut with balljoint increases the mobility of the system.
- The strut fits easily within the high visibility block allowing a neat and compact solution, and acts as an integrated anti-theft device.
- Additional fixing block incorporated in the design, allowing feu and pan antibiotics to be dependent on ground conditions.

Optional Extras
- Hera 151 Steadfast Safety Strips with reflective swing can be welded into the 151 Steadfast to highlight the barriers.
- Front support brackets allow rapid, improved performance on softer ground conditions and lift quickly and easily into the high-visibility block.

Our latest solution for securing site perimeters and protecting the public has been phenomenally successful since its launch, and offers the ultimate market leading temporary fencing system.
4 Appendix 3 - Fencing Stabilisation

Figure 3 Examples of above-ground stabilizing systems

a) Stabilizer strut with base plate secured with ground pins

b) Stabilizer strut mounted on block tray
5 Appendix 4 - Fencing Signs

[Images of fencing signs]

- 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.

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

<table>
<thead>
<tr>
<th>Stem Dia</th>
<th>Definition</th>
<th>Category grading (Cascade chart)</th>
</tr>
</thead>
<tbody>
<tr>
<td>= Stem diameter (mm) at 1.5m above ground level</td>
<td>Y Young</td>
<td>1st 1/3rd of life expectancy</td>
</tr>
<tr>
<td>C.C.</td>
<td>Early Mature</td>
<td>2nd 1/3rd of life expectancy</td>
</tr>
<tr>
<td>U.L.E.</td>
<td>Mature</td>
<td>M Final 1/3rd of life expectancy</td>
</tr>
<tr>
<td>OM</td>
<td>Over mature</td>
<td>Beyond life expectancy &amp; in natural decline</td>
</tr>
<tr>
<td>V</td>
<td>Veteran</td>
<td>Great age &amp; poss. high conservation value</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physiological Condition</th>
<th>Good</th>
<th>No significant health problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural Condition</td>
<td>Good</td>
<td>No significant defects</td>
</tr>
</tbody>
</table>

**AGE CLASS**

<table>
<thead>
<tr>
<th>Species</th>
<th>Height (m)</th>
<th>Stem Dia (mm)</th>
<th>Branch Spread (N / E / S / W)</th>
<th>C.C. (m)</th>
<th>Age Class</th>
<th>Physiological Condition</th>
<th>Structural Condition</th>
<th>Comment &amp; Preliminary recommendations</th>
<th>U.L.E.</th>
<th>Category</th>
<th>RPA (m²)</th>
<th>Radial Distance (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Purple leaf plum</td>
<td>7</td>
<td>290</td>
<td>1 4 4 3</td>
<td>2</td>
<td>M</td>
<td>Good</td>
<td>Good</td>
<td>Phelinus pomaceous at base of tree</td>
<td>10-20</td>
<td>C1</td>
<td>38.05</td>
<td>3.48</td>
</tr>
<tr>
<td>2 Cherry</td>
<td>9</td>
<td>350</td>
<td>4 5 5 5</td>
<td>3</td>
<td>Fair</td>
<td>Fair</td>
<td>Phelinus pomaceous at base of tree</td>
<td>10-20</td>
<td>C1</td>
<td>55.42</td>
<td>4.20</td>
<td></td>
</tr>
</tbody>
</table>
### Table 1  Cascade chart for tree quality assessment

<table>
<thead>
<tr>
<th>Category and definition</th>
<th>Criteria (including subcategories where appropriate)</th>
<th>Identification on plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trees unsuitable for retention (see Note)</td>
<td></td>
<td>See Table 2</td>
</tr>
<tr>
<td><strong>Category U</strong></td>
<td>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</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 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)</td>
<td>See Table 2</td>
</tr>
<tr>
<td></td>
<td>• Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 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</td>
<td></td>
</tr>
<tr>
<td><strong>NOTE</strong></td>
<td>Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</td>
<td></td>
</tr>
<tr>
<td>Trees to be considered for retention</td>
<td></td>
<td>See Table 2</td>
</tr>
<tr>
<td><strong>Category A</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trees of high quality with an estimated remaining life expectancy of at least 40 years</td>
<td>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)</td>
<td>See Table 2</td>
</tr>
<tr>
<td><strong>Category B</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trees of moderate quality with an estimated remaining life expectancy of at least 20 years</td>
<td>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</td>
<td>See Table 2</td>
</tr>
<tr>
<td><strong>Category C</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm</td>
<td>Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories</td>
<td>See Table 2</td>
</tr>
</tbody>
</table>

1 Mainly arboricultural qualities  
2 Mainly landscape qualities  
3 Mainly cultural values, including conservation  

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