BS5837 REPORT
July 2016

SITE: William Knibb Centre, Montagu Street, Kettering

CLIENT: LGSS
ARBORICULTURALIST’S REPORT

Terms of Reference

1.1 This report was requested by Paul Meakins of Wilby Tree Surgeons Ltd, Towerfield Farm, Sywell Lane, Ecton, Northampton, NN6 0QT.

1.2 The instruction to carry out an inspection of trees at William Knibb Centre, Kettering was received by email.

1.3 My report is to cover the species, age, dimensions, health, recommendations for any remedial work and suitability for retention in relation to any development that may take place and to include root protection areas for each tree.

Limitations

2.1 The content of this report is valid for a period of three years from the date shown above.

2.2 The report is for the sole use of the client and its reproduction or use by anyone else is forbidden unless written consent is given by the author.

2.3 This is an arboricultural report and as such, no reliance should be placed on comments relating to buildings or soil data.

2.4 This is not a full arboricultural survey. This can be supplied but will be subject to a further fee. Any safety implications identified during the inspection are of course noted within this report.

2.5 My observations and comments are based upon experience with previous cases. I have no formal engineering qualifications.

2.6 The inspection was undertaken from ground level.
The Site

3.1 The site is the car park of a council owned property in Kettering. There is a single tree on a grass verge close to the car park.

3.2 I carried out the survey on 6th July 2016 and collected data regarding trees and vegetation includes the species, age class, dimensions, condition and category for retention. Height data was gathered using a laser clinometer. DBH (diameter at breast height) was measured using a metric girth tape. Age and condition was estimated by examining the trees.

Trees & Development

4.1 The integration of trees within a development relies heavily on careful planning when locating properties and retaining trees nearby. Provided these points are considered, a harmonious relationship between people, their houses and gardens and existing trees is possible.

4.2 The single tree has been numbered and categorised according to Table 1 of BS5837:2012 Trees in relation to construction - Recommendations:

<table>
<thead>
<tr>
<th>Category</th>
<th>No of Trees</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>None</td>
<td>Those of a high quality with an estimated remaining life expectancy of at least 40yrs</td>
</tr>
<tr>
<td>B</td>
<td>One</td>
<td>Those of a moderate quality with an estimated remaining life expectancy of at least 20yrs</td>
</tr>
<tr>
<td>C</td>
<td>None</td>
<td>Those of a low quality with an estimated remaining life expectancy of at least 10yrs, or young trees with a stem diameter below 150mm.</td>
</tr>
<tr>
<td>U</td>
<td>None</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 10yrs.</td>
</tr>
</tbody>
</table>

4.3 Any development proposal should consider that trees identified as retention categories A, B or C are generally those that should be retained. However, category C trees will usually not be retained where they would impose significant constraint on development.
4.4 Each tree to be retained within a development site warrants protection. The British Standard BS5837 : 2012 Guide for Trees in Relation to Construction gives clear guidance as to the Root Protection Area (RPA) using Table 2 of the document. The attached tree schedule provides the RPA radius for each tree as well as the area in m².

4.5 There are however above ground constraints that may limit development close to trees. This includes the crown spread of the tree and, in some cases, it may be necessary to increase the extent of tree protection barriers to contain and thereby protect the spread of the crown. This consideration should also allow for future growth. Additional considerations are the obstruction of sunlight or daylight to the development.

4.6 The following appendices are attached to this report:

A  Retention Categories
B  Root Protection Areas
C  How tree roots can be damaged during construction
D  How to avoid damage to trees during construction

4.7 BS5837 calls for Root Protection Areas to be shown on the plan accompanying the planning application. I have included the required data in the attached tree schedule and plan.

4.8 For groups of trees, the data is an average for the trees within the group. However, when plotting the information onto your plan, you should be aware that Root Protection Areas will overlap considerably due to the proximity of the trees to each other within the group.

4.9 Section 5.3.1 of BS 5837 also calls for the inclusion of shading caused by retained trees where they would cause unreasonable obstruction of sunlight or daylight to a development. This is represented by a segment with a radius from the centre of the stem equal to the height of the tree, drawn from north west to east, indicating the shadow pattern throughout the main part of the day.

Conclusion

5.1 Any retained tree should be protected with protective fencing in line with BS 5837 : 2012 Trees in relation to construction : Recommendations, at the distance specified for the Root Protection Areas in the attached schedule.

5.3 Prior to commencing any arboricultural work to the tree, it is essential to liaise with the Local Planning Authority as it may be protected by a Tree Preservation Order or within a Conservation Area.
Should you have any questions or require any clarification, please do not hesitate to contact me.

Yours sincerely

Bruce Hatton
<table>
<thead>
<tr>
<th>Easting</th>
<th>Northing</th>
<th>Tree No</th>
<th>Species</th>
<th>Height (m)</th>
<th>Clear Stem Height</th>
<th>DBH 1 (m)</th>
<th>DBH Calc (m)</th>
<th>Crown Spread N</th>
<th>Crown Spread E</th>
<th>Crown Spread S</th>
<th>Crown Spread W</th>
<th>Age Class</th>
<th>Physiological Condition</th>
<th>Structural Condition</th>
<th>Comment</th>
<th>Retention Category</th>
<th>Life Expectancy</th>
<th>RPA radius (m)</th>
<th>RPA (m^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>487024</td>
<td>278870</td>
<td>1</td>
<td>Alnus incana (Alder)</td>
<td>9</td>
<td>2</td>
<td>0.420</td>
<td>0.420</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>B</td>
<td>1</td>
<td>20 to 40</td>
<td>5.0</td>
<td>80</td>
</tr>
</tbody>
</table>