

**DURAMEN CONSULTING** Ltd  
chartered foresters *and* consulting  
arboriculturists

TREE SURVEY and  
ARBORICULTURAL IMPLICATIONS ASSESSMENT

for

Market Place  
Salisbury



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CLIENT:

**Letts Wheeler**

Ref: 1043(F4)

Site Visit Date: 30 August 2010  
& 2 March 2011

Report Date:  
18 February 2011

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## **REPORT SUMMARY**

A tree survey of the Market Place, Salisbury identified a total of 34 trees that are best seen and managed as three separate groups - four mature planes, an avenue of middle aged planes and two rows of middle aged limes.

Using the British Standard 5837 categorisation of tree quality, 9 trees were assessed as Grade A - High Value trees, whilst 21 as Grade B - Moderate Value. Three trees were graded Grade C - Low Value and one tree was recommended for removal.

Having considered the quality of the trees and the management issues presented for their long term retention, along with plans to develop and upgrade the public location a design has been prepared that involves removal of all trees currently located in the Market Place.

The proposed design includes re-establishing trees along the perimeter of the Market Place in appropriate locations to create a visual feature, using high grade installation planting pits and trees, underpinning the desire to provide the foundation for healthy long living urban trees.

## **1 Introduction**

- 1.1 Duramen Consulting Ltd has been asked to undertake a tree survey and provide an arboricultural implications assessment for the Market Place, Salisbury, Wiltshire. Plans to upgrade this public place have been developed, informed by the tree survey included in this report. This report includes an assessment of the proposed development, including the plans for planting of additional trees.
- 1.2 The Market Place is flat with solid surfaces throughout. It has a roughly rectangular shape, being 72 metres North-South on its western edge and 60 metres North-South on its eastern edge. It is around 120 metres East-West, providing a total area of around 0.7 ha.
- 1.3 An accurate site plan is available, showing the location of each tree. This has been used to provide a Tree Constraints Plan - see Section 6 below.

## **2 Overall Site Description**

- 2.1 The Market Place lies at the heart of the City of Salisbury, provides the location for a variety of public events and has a number of historical features. For example the Charter Market is held every Tuesday and Saturday, whilst a statue of Henry Fawcett is located on the northern side of the area. A significant portion of the western part of the Market Place is currently used as a car park.
- 2.2 Wiltshire Council has not been approached to check on the presence of any Tree Preservation Orders (TPO). As the trees are owned by the Council it is unlikely, but not impossible, that a TPO is in place. It is assumed the Market Place is in a Conservation Area.

## **3 Scope of Tree Survey**

- 3.1 This report provides the results of a tree survey undertaken on 30 August 2010. The tree survey was conducted in accordance with the recommendations provided in British

Standard 5837:2005 *Trees in relation to construction - Recommendations.*

- 3.2 All trees around the Market Place have been included.
- 3.3 The parameters assessed for each tree, the methods used and their limitations are described in Appendix 1 to this report.
- 3.4 The full British Standard methodology consists of a number of steps:
- A **tree survey** records the location of each tree along with basic size estimates and quality assessments. In particular, the life expectancy of each tree is assessed so that those trees that can be expected realistically to provide long lasting benefits are identified.
  - A **tree constraints plan** plots the constraints, in terms of ground area, that each tree requires if it were retained. Both above (i.e. branches) and below ground (i.e. roots) constraints are considered. The above ground constraints are defined by branch length (i.e. crown size) whilst below ground constraints are assessed by defining a root protection area (RPA) for each tree. Typically the RPA for each tree is at first defined as an area shaped as a circle with the tree located at the circle's centre; modification of the RPA shape may be necessary to take into account the presence of infrastructure or poor rooting environments.
  - An **arboricultural implications assessment** assesses the impact of any particular design on existing trees based on the location of excavations required and space required for construction activity including material storage, machinery access, service runs and scaffolding.
  - Where building works are likely to be in close proximity to important trees a **method statement** may be required to both reassure Council planning officers and inform building site operations. An arboricultural method statement is best supervised by an arboricultural supervisor.
  - A **tree protection plan** shows the location of proposed protective fences around retained trees and other measures such as ground protection
- 3.5 This report provides the first three steps of the above; the fourth and fifth are not considered necessary due to the plan to remove trees in the square.

## **4 Results of Tree Survey**

- 4.1 A total of 34 trees grow around the Market Place. They fall into three separate groups, based on location, age and size and recent management history.
- 4.2 The first group consists of 4 mature Planes along the western edge of the Market Place. Three appear to be London Planes, whilst one appears to have leaves that are more deeply indented so this tree may have an ancestry that includes an element of Oriental Plane. These trees are around 17 metres tall, with stem diameters of between 69 and 82 cms.
- 4.3 The second group consists of 16 middle aged Plane trees running in two rows along the northern edge of the Market Place. These trees are between 9 and 12 metres tall with stem diameters of between 22 and 40 cms.
- 4.4 The third group consists of a feature of 14 limes trees - 8 lime trees running to the north from the north western corner of the Guildhall and a further 6 lime trees running north from the north east corner of the Guildhall. Several of these trees have been pollarded. They are between 6 and 11 metres in height with stem diameters between 30 and 47 cms.
- 4.5 The locations of the trees, along with their crown sizes are shown in the attached plan.
- 4.6 Using the British Standard 5837 categorisation 9 trees have been assessed as Grade A - High Value trees, whilst 21 have been given Grade B - Moderate Value. Three trees have been graded Grade C - Low Value and one tree has been recommended for removal.

## 5 Tree Condition

5.1 The earlier tree survey considered the condition of each tree and group of trees, along with the management options available. Having developed a proposal to remove trees and develop the square, this section of the report merely records the tree condition observed in the tree survey.

### 4 mature planes on west side

5.2 The first group of 4 mature plane trees are clearly a significant visual feature, blocking all views of the buildings on the western side during summer. Similarly they must block a significant amount of light from the four floors of these buildings, necessitating lights being on longer than might be necessary if the trees were not there.

5.3 There is visible sign to suggest the trees have been fully pollarded in the past, although occasional pruning has been undertaken.

5.4 The trees are beginning to show signs of maturity with epiphytic plants growing in crevices within two or three of the trees. Safety checks will need to be made on an annual basis to reduce the risks associated with these trees. However there is nothing to suggest that the trees could not have a safe useful life expectancy of 40 years or more, if measures were taken to preserve them.

5.5 These trees present a number of management issues that need to be considered: firstly, the soil around each tree has been covered with tarmac, limiting the infiltration of water into the soil on which the trees depend. It is clear that the roots immediately around the tree have and are disrupting the area and the use of tarmac may have exacerbated the problem, as the roots may have been forced to use condensation occurring on the underside of the tarmac. Ideally the trees should be given some space, as large as possible (up to 10 metres radius), for root activity. Clearly in a city centre location this is impractical. The current surfaces around these trees provide a number of trip hazards of varying degrees of severity. Since the square is likely to be used in both day and night conditions the visibility of some of these trips may make even a small disturbance to the surface

a potential problem. This issue is likely to be ongoing and without ongoing releveling is likely to get worse.

- 5.6 If the present level of the Market Place is to be kept there is no easy solution to maximising the area available and minimising the area given over to the tree roots - the root activity of the trees is likely to continue which may entail pushing any solid surface placed over them.
- 5.7 The relationship between the growth of the trees and their root activity is not straightforward. On the one hand it is probable that the larger each tree is, the greater the forces that each will transmit to the ground and thus the root systems. The tree will attempt to grow its root system to match the forces exerted on it by wind.
- 5.8 One possible remedy might be to prune the trees. At the extreme the trees could be pollarded, although they are already too large for the latter to be considered appropriate. A lesser pruning reduction of the leaf area of each tree should reduce the forces exerted on the root system and thus minimise the need for the tree to grow large roots. However the growth response of the tree to pruning may well be to reinvigorate root growth, reducing if not cancelling any benefit from pruning.
- 5.9 An additional problem is that of birds, particularly pigeons, within the crowns of the trees. Whilst some seating is located under the trees the threat from pigeon mess is such that the area beneath the trees is considerably less value than it might be. Controlling the pigeons is probably the best answer, possibly by the use of birds of prey.

#### *Avenue of planes along north side*

- 5.10 The 16 middle aged planes along the north of the Market Place form an avenue of sorts. However only five trees are in the line on the north side of the avenue, whilst 11 are in the line on the south side. This difference in density doesn't detract from the obvious visual feature as viewed from the west, but due to the current size of the trees and their likely larger size in maturity some specific tree removal will be needed to allow the remaining trees to grow to maturity.

- 5.11 The Council note dated 3<sup>rd</sup> November 2005 by A Cole and R Horsey described the condition of these trees and the management options available. The situation has only got worse since then.
- 5.12 Firstly several of the trees have a relatively short useful life expectancy:
- Tree 480 has obvious damage and needs removing.
  - Trees 472 and 481 are close to the paths of incoming and outgoing cars to the car park and as they grow will become larger obstacles to vehicle movement.
  - Tree 481 has emergent fungal fruiting bodies at the base of the trunk.
  - Tree 482 leans and its roots are significantly distorting the tarmac. Its proximity to the adjacent building will determine the pruning regime necessary, and its eventual shape and maximum size achievable.
  - Two trees (482 and 486) have weak forks and will need to be selectively pruned or even removed as they may split apart in strong winds.
  - Tree 484 shows signs of encircling, girdling roots. It is possible that the whole tree may fall down as the roots are not firmly anchoring the tree.
  - Tree 487 needs pruning away from the statue of Henry Fawcett.
- 5.13 Secondly and more generally almost all the trees in this group have been circled with tarmac around their base. The tarmac has started to be disrupted in most cases and some damage may become trip hazards. This problem is likely to become more serious as the trees grow larger.
- 5.14 Cole and Horsey's report suggests the removal of five trees as a minimum - 474, 476, 478, 480 and 486. The first four are alternate trees giving the remaining space to grow. Since 480 needs to be removed anyway, this determines the start of those trees to be removed, even though tree 476 has been graded A.
- 5.15 I would add two further trees that will not last long - 482 due to its weak fork, lean and disruption to the tarmac and 484 due to its girdling roots.

- 5.16 Another issue is that several of the trees at the western end of the avenue appear chlorotic. This may be due to the excessive use of rock salt during the last winter, and the trees may recover from the thin crowns they currently present.
- 5.17 If the avenue were to lose the five trees suggested earlier and the two I suggest, only 9 trees would remain, three on the north side of the avenue and 6 along the south side. It would be impossible to replace trees and recreate an avenue due to the size difference between established and replacement trees. The avenue would therefore be severely depleted and visibly threatened. As a result I fear that the long term future of this group of trees as an avenue is limited and whilst the inevitable can be held off for a few years, with possibly the loss of only two or three trees at some time in the next 10 years further losses will be necessary.

Limes north of the Guildhall

- 5.18 The 8 trees on the north west of the Guildhall form a significant visual barrier between the Market Place and the area to the north of the Guildhall and War Memorial. They match, in terms of species, the row of 6 lime trees growing to the north east of the Guildhall.
- 5.19 The limes to the north west have been pollarded and are unlikely to ever grow into significant large trees. A number of small decay holes are developing, which suggests that their long term structure may be jeopardised. As a result they are expected to last 20-40 years rather than longer than 40 years. They will need to be maintained at around their current size. Their grouping is a little strange in that trees 465, 466 and 467 are closer together than the other limes and this will restrict their size.
- 5.20 The 6 limes to the north east of the Guildhall are slightly larger than those to the north west. There is less sign that these have been pollarded. One tree was behind protective boarding at the time of the survey so was not examined.

## **6 Tree Constraints Plan**

- 6.1 The attached plan shows the location of each tree, the crown sizes and the circular root protection areas as defined by British Standard 5837:2005. The latter are of a theoretical nature in an urban area with covered soils; however they give an indication of the area in which active roots may be growing for each tree and the zones in which care will need to be taking whilst installing underground utilities, excavating or installing foundations for surfaces. Hand digging may be required to identify existing roots and special surfaces may be desirable to allow the uniform percolation of water into the soil (as opposed to focused point locations) and gaseous exchanges between soil and atmosphere.
- 6.2 A cctv drain survey has been undertaken of the drains in the square. Many of the existing trees have drains running underneath them or close by. It is clear that a long term solution to drainage issues is desirable as many of the drains have significant root growth, in several cases with obstructions between 15 and 30% of the cross sectional area of the drain.

## **7 Impact of proposed development**

- 7.1 The Salisbury Market Place Improvement Project has been designed in order to revitalise and update the Market Place allowing it to be used for a variety of public events.
- 7.2 After considering the condition of the existing trees and their long term retention value against the desire to develop the Market Place it was decided that a remove-and-replace approach would be preferable to attempting to retain some or all of the existing trees. Removal of trees allows complete flexibility with regards to redesign and construction.
- 7.3 Replacement of trees along the periphery of the market place is proposed, but allowing adequate space between road edge and tree pit. High quality planting pits and reasonable tree planting sizes should assist establishment and encourage early growth.

- 7.4 Whilst the immediate visual impact of tree removal will be significant, it is likely that the existing avenue of plane trees is likely to atrophy over the next decade as trees are removed for structural and safety reasons. In addition, some thinning would be necessary. The resulting visual feature would either become patchy with irregular retained trees or if individual replacement trees were planted an irregular feature would develop with different size trees being obvious. Such irregularity might become less visually obvious over time, but there is no guarantee of this. Replacement the whole avenue at once, if done well, could replace this feature and enhance it in the longer term.
- 7.5 The removal of the lime trees to the north west of the Guildhall will allow the Market Place to be used without interruption.
- 7.6 In terms of the species of replacement tree to be used there are a number of issues to be considered. It is assumed that a deciduous tree is preferred. There is space in the Market Place to consider planting more than one species but for the moment the discussion is based on just using one species/variety.
- 7.7 **POTENTIAL SIZE:** Potentially large species (>20 metres tall) can be pollarded but this requires long term commitment and resources. There is room in the Market Place for a small number of large trees but it is best if they are kept at some distance from both roads and buildings.
- Trees with medium size potential (<15 metres tall) can be allowed to grow to their full potential size with lesser requirements for size control through pollarding or regular pruning. They tend to be shorter lived, but not always. There is a greater range of species to choose from. Depending on species and variety smaller trees can disrupt underground infrastructure and paving just as much as larger trees.
- 7.8 **SEASONAL VARIETY** e.g. flowering and autumn colour: Some varieties of tree can provide both seasonal flowering and autumn leaf colour changes. If managed well they can provide striking features which change through the year.
- 7.9 **SHADE:** related to the size of the trees, a public place can benefit from shade, especially in the hotter months. Larger

trees are best for providing such shade, but a medium size trees can compensate by having greater numbers of them.

- 7.10 Taking these issues into account I would suggest that *Pyrus calleryana* Chanticleer and *Carpinus betulus* Fastigiata might be examples of suitable medium size trees providing geometrical shape and seasonal colours.

## **8 Tree Location and Constraints Plan**



## Appendix 1 - Notes on the Tree Survey and its limitations

Data collected on each recorded tree reflects the recommendations provided in paragraphs 4.2.6 and 4.3/Table 1 of British Standard 5837:2005 *Trees in relation to construction – Recommendations*.

**Tree Number:** T (individual tree), G (group of stems, possibly of coppice origin (i.e. originating from a single tree) or several trees planted together or self seeded) or S (stump of tree, normally cut at or nearby ground level). Shrubs (Sh) may also be recorded where they are considered to provide amenity or privacy that it may be desirable to retain post development.

**Species:** Commonly known name; Scientific name is recorded separately.

**Height:** Height of a tree is normally estimated with a clinometer where adequate visibility allows lines of sight to be established with both the base and top of the tree. To provide an accurate estimate of height, these sightlines should stretch to a distance from the tree at least as great as the tree is high (i.e. 20m for a 20m tall tree). In small gardens and restricted places where this is not possible, height must be estimated based on the surveyor's experience. Trees adjacent to those measured for height can be estimated for height visually. No record is normally made of which trees were used as reference trees. Tree heights from a ground survey (where available) can also be used as reference heights.

**Stem Diameter:** Larger stems which are likely to define the edge of root protection areas are normally measured at 1.5m above ground level with a diameter tape to the nearest millimetre. Those trees that are less likely to define the edge of the root protection area, or which were difficult to access may have been assessed visually by use of reference instruments such as tape measures or other objects of known size (e.g. a sheet of A4 paper – 21 x 30 cm). Where ivy and other vegetation such as holly, or slope or other considerations prevent accurate measurement the diameter estimate is marked with a \* to show it is approximate. Estimates are stated in centimetres.

Where more than one shoot grows at 1.5m above ground level, the diameter has not been measured at 1.5 m but above the root flare, normally where diameter is smallest between 0.2 and 0.5m above the ground. Such estimates will be recorded as "RF".

**Branch spread:** This parameter records the radial distances between the tree trunk and the end of the furthest branches in the direction of the four cardinal compass points. Where light conditions allow these have been measured on the largest trees using a laser device to the nearest 0.1m. In most cases however, unless the crowns look visibly uneven due to branch loss or neighbouring competing vegetation, circular crowns are assumed, and only one figure is reported.

**Crown Clearance:** This parameter estimates the lowest point of the crown from the ground. Minor and dead branches are ignored.

**Age Class:** Y: Young; M: Middle Aged; MT: Mature; OM: Over Mature; V: Veteran

**Physiological Condition:** Good (healthy); Fair (some signs of lack of vigour and/or poor health); Poor (definite signs of lack of vigour and/or poor health); Dead

**Structural Condition:** Comments on structural condition are restricted to what was seen of each tree; a complete health and safety audit was NOT conducted, but where defects were observed that need further investigation a recommendation for more detailed examination may be provided. Alternatively an annual inspection may be recommended (e.g. of a roadside tree). If the tree is of little further value, removal of the tree may be recommended without further investigation suggested.

Observations on structural stability of a tree and resulting recommendations may change with time. Trees are living organisms and climatic events (e.g. strong wind, drought, floods), human actions (e.g. vehicles, machinery, vandalism, application of chemicals) and other vectors (e.g. pests, diseases, lightning) may alter the health and/or structural stability of trees over relatively short periods of time. Annual reassessments are recommended for most trees that occur nearby property, areas of frequent use and other areas where a duty of care might be considered to apply. Thus our assessment of structural condition is valid on the day of inspection and for the vast majority of trees should be adequate for twelve months from the date of the survey. In a small proportion of cases however trees may appear healthy and structurally sound on the day of inspection, provide little or no sign of having stability or structural problems but rapidly deteriorate at a later date or over a period of time. Vigilance is therefore recommended and if signs of significant structural or health change are seen, further professional advice should be sought.

Where an inspector from Duramen Consulting has seen what he or she considers to be a "dangerous" tree the inspector will attempt to inform a responsible person on site verbally and for both occupied and non occupied sites the nature of the danger provided by the tree will be recorded in the data sheet.

Additionally, some tree structural defects may be difficult to see through other vegetation such as brambles or tall herbaceous plants, ivy and other climbers growing on stems or factors such as poor access to the base of the tree. Cutting the main stems of climbers around the base of each tree is recommended in many cases. Such cutting should lead to their death and allow a more thorough visual inspection at a later date. Species such as ivy may provide habitats for a variety of wildlife species, some of which, like bats, may be legally protected. In some cases further advice on wildlife legislation may be advisable.

**Preliminary Management Recommendations:** Where action is recommended a preliminary suggestion is made. Further discussion is likely to be needed to assess the need and its priority. Removal of ivy may be useful; crown pruning to remove dead wood may be recommended if new buildings are to be erected nearby a tree or if access to the tree is likely to increase; sometimes complete tree removal may be suggested. The action recommended is the minimum required and may not include other factors such as the desire to keep the tree in an attractive shape or stump removal.

**Estimated Remaining Life Contribution:** No standardised method is recognised for making estimates of remaining life span of a tree. The estimates given are based on a rapid assessment of health and structural condition AND the location of the tree in relation to any targets. Thus a roadside tree with a particular defect may be given a lesser life expectancy than a similar tree located deep in a rarely visited woodland.

**Category Grading:** British Standard 5837 (BS) suggests the use of four categories for tree quality - three for tree retention (A, B and C) and one for removal (R). For retained trees, three subcategories are suggested by the BS - arboricultural (1), landscape (2) and cultural/conservation (3). Grade "A" trees are of high quality and value making a substantial contribution with a life expectancy over 40 years. Grade "B" trees are of moderate quality and value making a significant contribution with a life expectancy over 20 years; Grade "C" trees are of low quality and value with a life expectancy over 10 years or young trees with a stem diameter less than 150mm.






Category "R" trees are recommended for removal due to serious, irremediable structural defects or health conditions.

Appendix 2 contains further details of the BS categories.

**Bat Roost Potential:** Bats are protected species by law. Trees by their very nature have structures that may allow bats to shelter or roost in them. These include cracks in bark, ivy growth and crevices and cracks that may develop over the lifetime of a mature tree. Reasonable care must be taken whilst undertaking any tree work to identify the presence of bats and/or bat roosts. Work must stop if any are found and advice sought from an appropriately licensed person. This column is marked "Y" where an observed feature of a tree has the potential to harbour bats and thus extra care should be taken before and whilst undertaking tree works to the tree. This might involve a survey of the tree at dawn and/or dusk, possibly including a climbing inspection, by a competent licensed bat worker.

## Appendix 2: BS 5837 categorisation for tree quality

Appendix 2 — BS 5837 Cascade Chart for Tree Quality Assessment

TRES FOR REMOVAL		Identification on plan
Category and definition	Criteria	
<p><b>Category B</b> Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management</p>	<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 R category trees (i.e. 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 (e.g. Dutch elm disease), or very low quality trees suppressing adjacent trees of better quality</li> </ul> <p>NOTE: Habitat reinstatement may be appropriate (e.g. R category tree used as a hat roost: installation of hat box in nearby tree).</p>	 <b>RED</b>
TRES TO BE CONSIDERED FOR RETENTION		
Criteria – Subcategories		
Category and definition	1 Mainly arboricultural values	2 Mainly landscape values
<p><b>Category A</b> Those of high quality and value: in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested)</p>	<p>Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)</p>	<p>Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (e.g. avenues or other arboricultural features assessed as groups)</p>
<p><b>Category B</b> Those trees of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20 years is suggested)</p>	<p>Trees that might be included in the high category, but are downgraded because of impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage)</p>	<p>Trees with clearly identifiable conservation or other cultural benefits</p>
<p><b>Category C</b> Those trees of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150 mm</p>	<p>Trees not qualifying in higher categories</p>	<p>Trees with very limited conservation or other cultural benefits</p>
	<p>NOTE: Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150 mm should be considered for relocation.</p>	 <b>GREY</b>
TRES TO BE CONSIDERED FOR RETENTION		
Category and definition	3 Mainly cultural values, including conservation	Identification on plan
<p><b>Category A</b> Those of high quality and value: in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested)</p>	<p>Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)</p>	 <b>LIGHT GREEN</b>
<p><b>Category B</b> Those trees of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20 years is suggested)</p>	<p>Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal arboricultural features (e.g. trees of moderate quality within an avenue that includes better, A category specimens), or trees situated mainly internally to the site, therefore individually having little visual impact on the wider locality</p>	 <b>MID BLUE</b>
<p><b>Category C</b> Those trees of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150 mm</p>	<p>Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit</p>	 <b>GREY</b>

EXTRACT FROM BS5837:2005 'TREES IN RELATION TO CONSTRUCTION – RECOMMENDATIONS'

## Appendix 3: Tree Data

**Appendix 3: Data for trees at Market Place Salisbury**

**Client:** Letts Wheeler  
**Date of survey:** 30 August 2010  
**Tagged:** No

**Site:** Salisbury Market Place  
**Arboricultural Consultant/surveyor:** JH  
**Weather & Light conditions:** Dry

Overcast Moderate Calm

Ref. number (T, S or G)	Number of stems	Species (Common Name)	Height (m)	Stem diameter (mm)	Branch spread (m)				Height of crown clearance (m)	Age class	Estimated remaining contribution (years)	Bat roost potential	Growth Potential	Structural condition (pole, forks, wounds, decay, dead wood)	Physiological Condition	Other Comments - Ivy, Competing Crowns, Open Grown	Root Protection Area (radius equiv m)	BS 5837 Category Grading
					North	East	South	West										
464	1	lime	6	323	3	3	3	3	2	Middle Aged	20 -40 years	Average potential for size of tree	High	pollard; tarmac around base	Fair - e.g. low vigour, some leaf discoloration or loss, some insect damage		3.9	C
465	1	lime	7	326	4	3	2	3	2	Middle Aged	20 -40 years	Average potential for size of tree	High	tarmac around base; wounds to stem	Fair - e.g. low vigour, some leaf discoloration or loss, some insect damage		3.9	B2
466	1	lime	9	416	5	3	4	4	2	Middle Aged	20 -40 years	Average potential for size of tree	High	by telephone boxes; pollarded	Fair - e.g. low vigour, some leaf discoloration or loss, some insect damage		5.0	B2
467	1	lime	11	430	3	5	3	4	2	Middle Aged	20 -40 years	Average potential for size of tree	High	slight lean; lights in crown	Fair - e.g. low vigour, some leaf discoloration or loss, some insect damage		5.2	B2
468	1	lime	9	451	2	3	2	4	2	Middle Aged	20 -40 years	Average potential for size of tree	High	Oozing at base; pollard	Fair - e.g. low vigour, some leaf discoloration or loss, some insect damage		5.4	B2
469	1	lime	9	469	2	4	4	4	3	Middle Aged	20 -40 years	Average potential for size of tree	High	by phone box; tarmac disruption; pollarded	Fair - e.g. low vigour, some leaf discoloration or loss, some insect damage		5.6	B2
470	1	lime	9	401	5	4	2	4	2	Middle Aged	20 -40 years	Average potential for size of tree	High	Topped, tarmac around base; seat adjacent	Fair - e.g. low vigour, some leaf discoloration or loss, some insect damage		4.8	B2
471	1	lime	11	456	4	5	6	5	2	Middle Aged	20 -40 years	Average potential for size of tree	High	Electricity, Lighting, Telephone Box adjacent; Pollarded	Fair - e.g. low vigour, some leaf discoloration or loss, some insect damage		5.5	B2

**Appendix 3: Data for trees at Market Place Salisbury**

Ref. number (T, S or G)	Number of stems	Species (Common Name)	Height (m)	Stem diameter (mm)	Branch spread (m)				Height of crown clearance (m)	Age class	Estimated remaining contribution (years)	Bat roost potential	Growth Potential	Structural condition (pole, forks, wounds, decay, dead wood)	Physiological Condition	Other Comments - Ivy, Competing Crowns, Open Grown	Root Protection Area (radius equiv m)	BS 5837 Category Grading
					North	East	South	West										
472	1	London plane	9	304	7	5	6	5	2	Middle Aged	20 -40 years	Average potential for size of tree	High	in tarmac at entrance to car park			3.6	B2
473	1	London plane	12	347	6	7	7	3	2	Middle Aged	> 40 years	Average potential for size of tree	High	tarmac by base	Good - e.g. high vigour, deep green leaf colour, little insect damage		4.2	A2
474	1	London plane	12	339	6	4	6	3	2	Middle Aged	> 40 years	Average potential for size of tree	High	tarmac disrupted; electric lights			4.1	B2
475	1	London plane	9	270	5	3	7	4	2	Middle Aged	> 40 years	Average potential for size of tree	High	tarmac disrupted; electric lights			3.2	B2
476	1	London plane	10	317	5	4	5	3	3	Middle Aged	20 -40 years	Average potential for size of tree	High	lighting, thinning crown, tarmac disrupted	Fair - e.g. low vigour, some leaf discoloration or loss, some insect damage		3.8	A2
477	1	London plane	11	288	6	4	7	4	2	Middle Aged	> 40 years	Average potential for size of tree	High	tarmac at base	Good - e.g. high vigour, deep green leaf colour, little insect damage		3.5	A2
478	1	London plane	10	238	7	4	7	3	2	Middle Aged	> 40 years	Average potential for size of tree	High	by telephone boxes; lighting; thinning crowns	Fair - e.g. low vigour, some leaf discoloration or loss, some insect damage		2.9	B2
479	1	London plane	10	278	4	3	6	6	3	Middle Aged	> 40 years	Average potential for size of tree	High	slight thinning in upper crown	Fair - e.g. low vigour, some leaf discoloration or loss, some insect damage		3.3	A2

Category: A: High Value - Light Green; B: Moderate Value - Mid Blue; C: Low Value - Grey; R: Remove - Red

**Appendix 3: Data for trees at Market Place Salisbury**

Ref. number (T, S or G)	Number of stems	Species (Common Name)	Height (m)	Stem diameter (mm)	Branch spread (m)				Height of crown clearance (m)	Age class	Estimated remaining contribution (years)	Bat roost potential	Growth Potential	Structural condition (pole, forks, wounds, decay, dead wood)	Physiological Condition	Other Comments - Ivy, Competing Crowns, Open Grown	Root Protection Area (radius equiv m)	BS 5837 Category Grading
					North	East	South	West										
480	1	London plane	9	228	4	3	4	3	3	Middle Aged	< 10 years	Average potential for size of tree	Low	vertical scar with decay; thinning crown	Fair - e.g. low vigour, some leaf discoloration or loss, some insect damage		2.7	R
481	1	London plane	11	228	6	3	5	5	3	Middle Aged	20 -40 years	Average potential for size of tree	Moderate	in tarmac beside exit to carpark; lighting, thinning crown; fungus at base	Fair - e.g. low vigour, some leaf discoloration or loss, some insect damage		2.7	B2
482	1	London plane	12	408	7	6	4	7	2	Middle Aged	10 - 20 years	Average potential for size of tree	High	by Nationwide BS; tarmac; telephone box; with weak fork; leans	Good - e.g. high vigour, deep green leaf colour, little insect damage		4.9	C
483	1	London plane	10	220	4	5	3	5	2	Middle Aged	10 - 20 years	Average potential for size of tree	Moderate	by road and salt bin; thinning crown	Fair - e.g. low vigour, some leaf discoloration or loss, some insect damage		2.6	B2
484	1	London plane	11	319	5	5	4	4	3	Middle Aged	< 10 years	Average potential for size of tree	Low	encircling roots; possible blow over; thinning crown	Fair - e.g. low vigour, some leaf discoloration or loss, some insect damage		3.8	B2
485	1	London plane	12	405	6	6	5	5	3	Middle Aged	> 40 years	Average potential for size of tree	High	lean east; tarmac disrupted; electric lights	Fair - e.g. low vigour, some leaf discoloration or loss, some insect damage		4.9	A2
486	1	London plane	11	269	6	6	4	5	3	Middle Aged	< 10 years	Average potential for size of tree	Moderate	tarmac damaged; weak fork; thinning crown	Fair - e.g. low vigour, some leaf discoloration or loss, some insect damage		3.2	C
487	1	London plane	11	286	5	5	5	5	2	Middle Aged	> 40 years	Average potential for size of tree	Moderate	adjacent to Fawcett Statue; tarmac disruption of stones; by crossing; lighting; minor hole in stem @ 4m (N)	Fair - e.g. low vigour, some leaf discoloration or loss, some insect damage		3.4	B2

Category: A: High Value - Light Green; B: Moderate Value - Mid Blue; C: Low Value - Grey; R: Remove - Red

**Appendix 3: Data for trees at Market Place Salisbury**

Ref. number (T, S or G)	Number of stems	Species (Common Name)	Height (m)	Stem diameter (mm)	Branch spread (m)				Height of crown clearance (m)	Age class	Estimated remaining contribution (years)	Bat roost potential	Growth Potential	Structural condition (pole, forks, wounds, decay, dead wood)	Physiological Condition	Other Comments - Ivy, Competing Crowns, Open Grown	Root Protection Area (radius equiv m)	BS 5837 Category Grading
					North	East	South	West										
488	1	London plane	17	826	5	7	4	6	2	Mature	> 40 years	Average potential for size of tree	High	fork @5m into 6 stems; lighting. Tarmac at base; telephone box; slight lean SE	Good - e.g. high vigour, deep green leaf colour, little insect damage		9.9	A2
489	1	London plane	17	778	6	10	6	6	2	Mature	> 40 years	Average potential for size of tree	High	slight lean SE; fork at 5m; 5 main stems; tarmac at base with some disruption	Good - e.g. high vigour, deep green leaf colour, little insect damage		9.3	A2
490	1	London plane	17	694	4	9	6	6	2	Mature	> 40 years	Average potential for size of tree	High	fern growing from stem near fork, slight lean to E; fork at 5m; 5 stems	Good - e.g. high vigour, deep green leaf colour, little insect damage		8.3	A2
491	1	London plane	17	816	5	9	9	6	2	Mature	> 40 years	Average potential for size of tree	High	tarmace, telephone box; lighting; fork - 4 main limbs; vertical crack @ 4-6 metres with elder	Good - e.g. high vigour, deep green leaf colour, little insect damage		9.8	A2
1	1	lime	10	300	5	5	5	5	2	Mature	> 40 years	Average potential for size of tree	High		Good - e.g. high vigour, deep green leaf colour, little insect damage		3.6	B2
2	1	lime	10	300	4	4	4	4	2	Mature	> 40 years	Average potential for size of tree	High		Good - e.g. high vigour, deep green leaf colour, little insect damage		3.6	B2
3	1	lime	10	300	5	5	5	5	2	Mature	> 40 years	Average potential for size of tree	High		Good - e.g. high vigour, deep green leaf colour, little insect damage		3.6	B2
4	1	lime	10	300	5	5	5	5	2	Mature	> 40 years	Average potential for size of tree	High		Good - e.g. high vigour, deep green leaf colour, little insect damage		3.6	B2
5	1	lime	10	300	4	4	4	4	2	Mature	> 40 years	Average potential for size of tree	High		Good - e.g. high vigour, deep green leaf colour, little insect damage		3.6	B2
6	1	lime	10	300	6	6	6	6	2	Mature	> 40 years	Average potential for size of tree	High		Good - e.g. high vigour, deep green leaf colour, little insect damage		3.6	B2

Category: A: High Value - Light Green; B: Moderate Value - Mid Blue; C: Low Value - Grey; R: Remove - Red