C.B.E. Consulting

BS5837:2012 Tree Survey
Land adjacent to Crown Business Park
Old Dalby
Leicestershire
NGR SK686 138

Survey by
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smas worksafe consultant www.smasltd.com as recognised by SSIP Safety Schemes in Procurement	Report prepared by: C Barker	Date Issued: January 2013
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BS5837 Tree Survey, Land at Crown Business Park, Old Dalby

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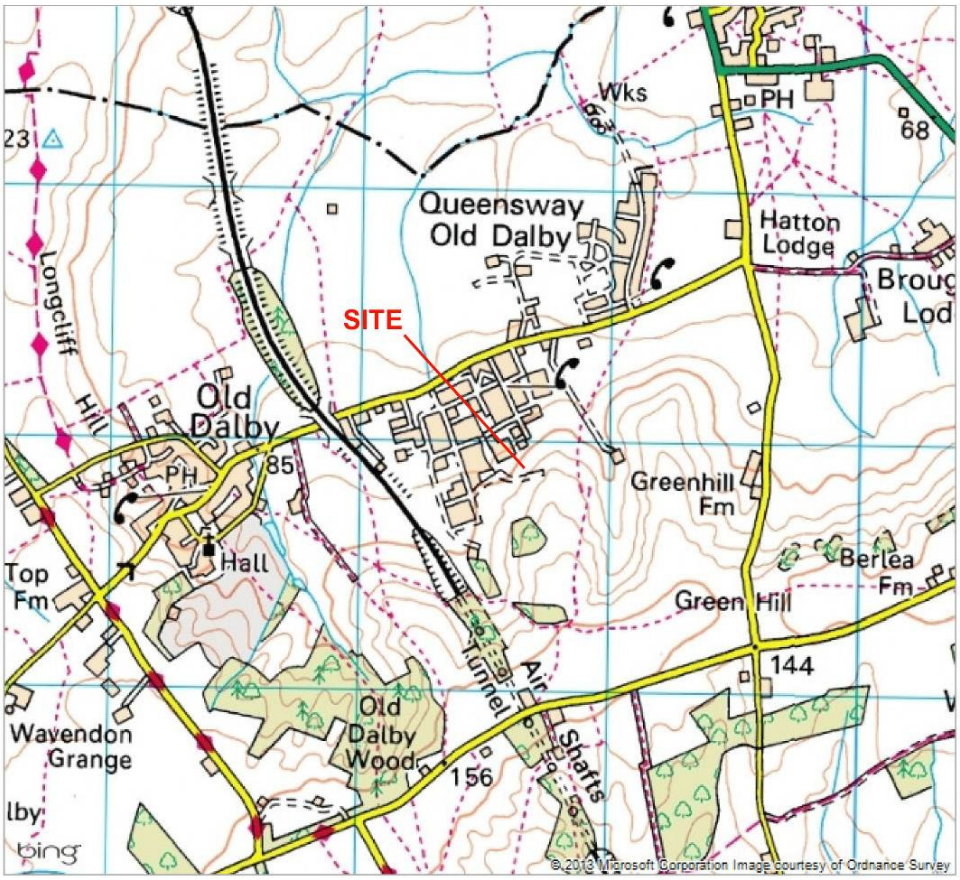
Introduction

1.1 Site Description and Location

The site surveyed comprises an irregular parcel of land segregated from surrounding land by an extensive chain link boundary fence on all side located on the south boundary of the Crown Business Park, Old Dalby, Leicestershire at NGR SK686 138. The site contains no significant structures. The location of the site is shown on the plan within **Figure 1** and an aerial photograph has been provided within **Figure 2** to place the site in context.

In order to facilitate an application to obtain permission to redevelop the site the Client has requested a BS5837 (2012) Tree Survey should be completed to assess the quality of the trees along the boundary areas of the site and determine whether any protection measures are required to retain these. An ecological appraisal of the site has also been completed and the habitats on the site are described within the Ecology and Protected Species Appraisal Report prepared by CBE Consulting ref P413 / 0113 - 01 dated 27 January 2013. This report is to read in conjunction with the ecological report.

Figure 1: Location Plan



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1.2 Neighbouring Land Uses and Recent Site History

As can be seen from the aerial photograph below, the land surrounding the site is varied in character. To the north and west of the site the land comprises well established industrial park. The site is part of the industrial park enclosure and has chain link fencing entirely encompassing it. To the south and east the site is bordered by existing arable fields with

hedgerows and occasional mature trees. The area in which the site sits is therefore best described as being on the border of the industrial park, bounded on two sides by industrial facilities and roads with open land to the south and east aspects from which it is segregated by fencing.

The site itself comprises a single parcel of land with an access road that is occupied by unmanaged grassland but there are some significant areas of trees in the north east and south east areas of the site and occasional trees along the west boundary visible on the photograph below.

Figure 2: Site Contextual Aerial Photograph

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A search of online records indicates that the site falls does not fall within any specified Conservation Areas covering the village of Old Dalby. Leicestershire County Council on-line records of tree preservation orders (TPO's) show none within or immediately adjacent to the site area. The status of any trees should be checked again prior to any development works being undertaken. None of the trees are numbered with tags. In undertaking the tree survey the assessment has been carried out in accordance with the specifications contained within BS 5837 Trees in Relation to Design, Development and Construction (2012).

An inspection of the site and the immediate surrounding areas was completed in December 2012 by Christopher Barker, dipHort, CEnv, an experienced arboricultural consultant and licensed bat worker.

2. Tree Survey Appraisal Methodology

2.1 Survey Objectives

This tree survey has been carried out with the objective of:

- Identifying the individual tree species present at the site by means of visual inspection;
- To define the approximate age, condition and canopy spread of all individual mature trees identified and the value of these within the development context;
- To identify any trees that present a risk to existing or proposed foundations or other structures that may be constructed on the site and recommend action to remove this risk; and
- Recommend tree management / mitigation measures where appropriate.

The survey took the form of an inspection of the site carried out in December 2012. The survey broadly assessed the condition and arboricultural value of the trees lying on or adjacent to the site area where future redevelopment may be proposed, paying particular attention to any mature individual trees present within or adjacent to the potential development site area, in order to prepare an assessment in accordance with BS 5837 Trees in Relation to Design, Development and Construction (2012).

2.2 Survey Methodology

The new BS5837: 2012 methodology has minor changes to the 2005 methodology, in particular:

The standard suggests a number of minor changes to the parameters required to be captured by the initial tree survey in clause 4.4.2 of the revised 2012 standard, for example:

- alterations to the measurements of stem diameters for multi-stemmed trees;
- the exiting height above ground and direction of growth of the lowest branch is to be recorded;
- the way that the estimated remaining life expectancy is expressed has been changed;
- Category U replaces R – whilst the trees may have no value there may well be no overriding need to remove them.

The methodology set out below is a detailed summary of the suggested approach to tree assessment as described in British Standard 5837:2012. This report has applied the methodology to all significant individual trees or groups of trees present at or near to the site. A detailed topographical survey has been provided by the client and this has been used to prepare the tree plan within Section 3. Trees below 15 cm trunk diameter were generally excluded from the survey.

2.3 Trees

Trees have been broadly assessed based on guidance set out within the British Standard BS 5837:(2012) Trees in Relation to Design, Development and Construction. This standard provides recommendations and guidance on the principles to be applied to achieve successful integration of development with trees, shrubs and hedgerows. Where development is to occur, the standard provides guidance on the approach needed to decide which trees are appropriate for retention, and the means for protecting these trees during the development (including demolition and construction work) and the means of incorporating trees into the developed landscape.

Trees on the site have been divided into one of four categories (based on the cascade chart for tree quality assessment). These are classed as A, B, C or U (Section 4 of BS 5837) within

the table in Appendix 1. This gives an indication as to the tree's importance in relation to the site, the local landscape and, also, the value and quality of the existing trees on site. This assists informal decisions concerning which trees should be removed or retained should development occur. For a tree to qualify under any given category it should fall within the scope of that category's definition (see below). Categories A, B and C cover trees that should be a material consideration in the development process, each with three further sub-categories (i, ii, iii) which are intended to reflect arboricultural, landscape and cultural (nature conservation) values. Category U trees may have no significant landscape value but it is not presumed that there is any overriding need to remove these unless stated otherwise in the description and recommendations. They are for this reason not considered as being significant within the planning process. In assigning trees to the A, B or C categories, and the presence of any serious disease or tree–related hazard is taken into account. If the disease is considered fatal and/or irremediable, or likely to require sanitation for the protection of other trees it may be categorised as U with a recommendation for work or even removal, even if they are otherwise of considerable value.

Category (A): Trees whose retention is most desirable and are of high quality and value. These trees are considered to be in such a condition as to be able to make a lasting contribution (a minimum of 40 years) and may comprise:

(i) Trees which are particularly good examples of their species especially 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);
(ii) Trees, or groups of trees 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);
(iii) Trees or groups of significant conservation, historical, commemorative or other value (e.g. Veteran or wood-pasture trees).

Category (B): Trees whose retention is considered desirable and are of moderate quality and value. These trees are considered to be in such a condition as to make a significant contribution (a minimum of 20 years) and may comprise:

(i) Trees that might be included in the high category but because of their numbers or slightly impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage), are downgraded in favour of the best individuals;
(ii) Trees present in numbers such that they form distinct landscape features and attract a higher collective rating than they would as individuals. Individually these trees are not essential components of formal or semi-formal arboricultural features, or trees situated mainly internally to the site and have little visual impact beyond the site;
(iii) Trees with clearly identifiable conservation or other cultural benefits.

Category (C): Trees that could be retained and are considered to be of low quality and value. These trees are in an adequate condition to remain until new planting could be established (a minimum of ten years) or are young trees with a stem diameter below 150 mm and may comprise:

(i) Trees not qualifying in higher categories;
(ii) 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;
(iii) Trees with very limited conservation or other cultural benefits.

Category (U): Trees that are considered to have no significant landscape value but it is not presumed that there is any overriding need to remove these unless stated otherwise in the description and recommendations. They are for this reason not considered as being

significant within the planning process. These trees will be in such a condition that any existing value would be lost within 10 years and which should in the current context be ignored or removed for reasons of sound arboricultural management. Trees within this category are:

(i) 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;
(ii) Trees that are dead or are showing signs of significant, immediate or irreversible overall decline;
(iii) 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.

Species have been recorded by common and scientific name. Height has been estimated in metres and stem diameter measured in centimetres unless impractical, taken at a height of 1.5 m from the base of the tree.

In the assessment particular consideration has been given to:

(a) The health, vigour and condition of each tree;
(b) The presence of any structural defects in each tree and its life expectancy;
(c) The size and form of each tree and its suitability within the context of the proposed scheme;
(d) The location of each tree relative to existing site features, e.g. its value as a screen or as a skyline feature.

Age class is assessed according to the age class categories referred to in BS 5837.

YNG: Young trees age less than 1/3 life expectancy.
SM: Middle age trees 1/3 – 2/3 life expectancy.
M: Mature trees over 2/3 life expectancy.
OM: Over mature – declining or moribund trees of low vigour.

The overall condition of any individual tree, or group of trees, has been referred to using one of the definitions listed below. A more detailed description of condition has been noted in the Tree Schedule.

G **Good:** A sound tree or trees needing little, if any, attention
F **Fair:** A tree or trees with minor but rectifiable defects or in the early stages of stress, from which it may recover
P **Poor:** A tree or trees with major structural and physiological defects or stressed such that it would be very expensive and inappropriate to retain
D **Dead:** A tree or trees no longer alive. However, this could also apply to those trees that are dying and will be unlikely to recover, or are becoming or have become dangerous

Major defects or diseases and relevant observations have also been recorded. Dead wood has been defined as the following:

Twigs and small branch material	Up to 5 cm in diameter
Minor dead wood	5 cm to 10 cm in diameter
Major dead wood	10 cm in diameter and above

The survey was completed from ground level only. Aerial inspections were not undertaken. Evaluations of tree conditions given within this assessment apply to the date of survey and cannot be assumed to remain unchanged, and it may be necessary to review these within 24 months, in accordance with good arboricultural practice.

2.4 Potential For Protected Species

Potential bat roost locations are described within this report using the methodology as that recommended by the Bat Conservation Trust (BCT). Each tree of significant size assessed within this survey has also been assessed for the potential to provide roosts for bats and the table in Appendix 1 includes reference to this.

Potential	Field Signs
Roost confirmed	Confirmed bat roost in tree. Field evidence past or current presence of bats confirmed by droppings, staining or flight.
High roost potential	Splits or cracks in major limbs which develop upwards, smooth surfaces around potential entry points, dense ivy covering, woodpecker / rot holes, significant lifting bark, Artificial bat boxes. Ancient of over mature trees where the canopy cannot be fully inspected from the ground.
Medium roost potential	Some splits in branches, dense ivy covering, and small cavities visible, dense epicormic growth. Flies may be present around a potential entry point.
Low roost potential	Splits may be present in minor branches, sparse ivy cover, and some loose bark evident. Young healthy trees with good visibility to the canopy top.
No roost potential	Tree with a negligible potential to support bat roosts (not supporting any of the above features).

2.5 Site Plans & Tree schedules

The extent and positions of significant individual trees or groups of trees close to the site are shown on the Site Plan within Section 3. The positioning of the individual trees has measured on site and also taken from a topographical plan provided by the Client. The Root Protection Area's (RPA) for trees of good quality that are potentially being retained (TG1 and TG4) have been marked within the Constraints Plan (provided separately) using the RPA's provided in the Tree Schedule within Appendix 1.

A summary table that includes the trees identified on or near to the site is included in the Tree Assessment Report detailing information on each group of trees. This is also provided in Appendix 1. Within the summary table maximum RPA's (m^2) for estimated tree diameters have been included where appropriate, as well as a calculated corresponding radius of the circle for that RPA. The Root Protection Areas are formulated as described below and assist when designing layouts in relation to trees.

2.6 Root Protection Area (RPA)

Below ground constraints to development are represented by the root plate around a tree which needs protecting in order for the tree to be incorporated into a proposed scheme, without adverse harm to the tree or structural integrity of any proposed foundation structures.

This area is illustrated by the Root Protection Area (RPA) and is calculated according to the formula set out in BS 5837 (2010). This area is equivalent to a circle with a radius 12 x the stem diameter for single stem trees or the basal diameter for trees with more than one stem arising less than 1.5 m above ground level.

RPA (m^2) = (stem diameter (mm) x 12 / 1000) ^{2} x 3.142

This figure should be capped to 707 m^2, that is, equivalent to a circle with a radius of 15 m, or a square with approximately 26 m sides

Taken from Table 2: Calculating the RPA , BS5837 (2005).

3. Tree Survey Findings

3.1 Survey Details

The tree inspection took the form of a walkover inspection completed by Christopher Barker dipHort, CEnv in December 2012. Each individual semi-mature or mature tree of significance that could be impacted by any proposed redevelopment was identified and visually inspected and classified. The trees identified during the survey of the site have been individually noted and identified within this report and are shown in the Site Plan within Section 3. The character of the trees at the site is shown in photographs contained within Appendix 2.

The area surrounding to the north and west of the site is well developed and visually the location is not prominent as it is well screened from Old Dalby by the existing buildings. To the south and east the land is open and comprises arable fields interspersed with small woodland copses and hedgerows. Visually the site is not prominent from the south or east as it occupies a north facing slope. Only the south east corner of the site is visible. The general area does not have a woodland character but is very open.

3.2 Mature and Semi-mature Trees

There are a small number of significant mature trees on or in the vicinity of the site and most of the trees surveyed are of mixed age ranging from juvenile to mature. A total of eleven individual trees of significant size and four woodland groups (TG1 – TG4) have been identified and assessed as part of the tree survey. The trees are generally scattered and located in boundary positions within hedgerows or alongside fences.

Trees 1 – 6 and TG2 (Access Road, north west corner)
Trees T1 – T6 are all self – set Ash (Fraxinus excelsior) occupying a boundary position along the original access road into the site. These trees are all relatively small in stature and have low landscape significance. These trees are of quite poor quality and this, combined with their position, places these into Category U.

Close to the Ash, occupying a corner position is a dense copse of young Poplar and Birch. These trees are all small and crowd one another. Visually they are not prominent and are place within Category U.

Trees 7 – 8 and TG3 (West boundary)
Trees T7 and T8 are large multi stemmed Poplar trees centrally positioned adjacent to the boundary chain link fence on the west boundary. These two trees are visually prominent from within the site since they occupy slightly higher ground and are surrounded by level open ground. These two trees have very open canopies that merge. One tree (T8) is in decline with evidence of a broken remnant trunk and is over-mature. Tree T7 appears in better condition but the canopy of this tree is very unbalanced and spreads out across the boundary. Both trees have significant dead wood visible. Due to its obvious decline T8 is placed within category U. Tree T7, being in better condition but nearing the end of its useful life is placed within Category C.

In the south west corner is a stand of over mature Willow trees with under canopy Hawthorn identified as TG3. The Willow trees are in decline being over mature and displaying significant dead wood, broken and trailing branches. Since these trees are in decline they are classified as Category U.

Tree T9 (centre)
Tree T9 is a small multi-stemmed Ash, probably coppiced and regenerating from this. This is a small tree that is not visually significant and not of high quality. This tree is placed within Category U.

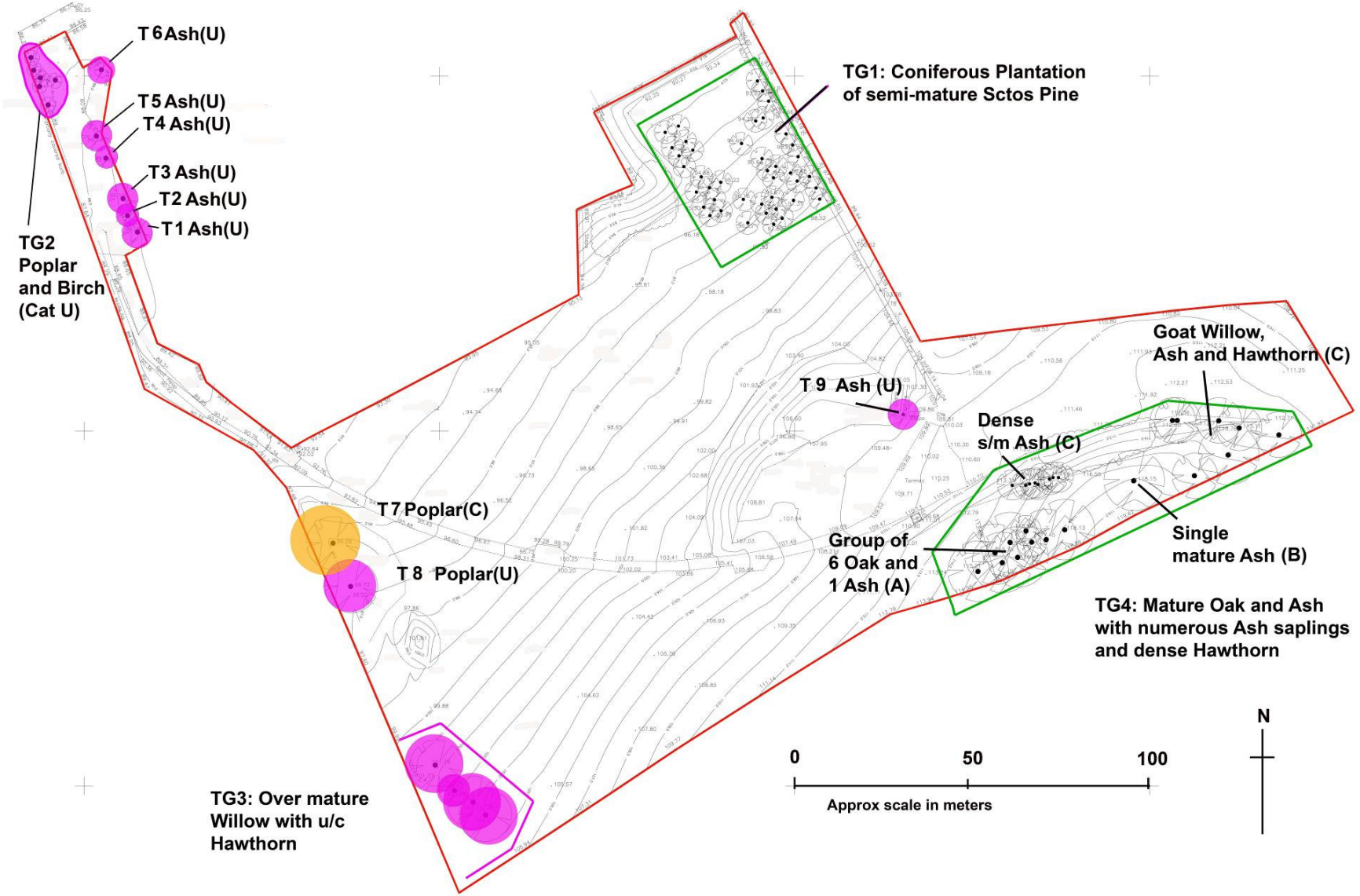

Figure 3 Location of Trees at the site

Trees TG1 (North east corner))
This is a dense group of Pine trees, presumably established originally to provide a place of shelter in a corner position when this land was still used as a field. The trees are closely planted and the canopies merge into a single structural feature. These trees are now situated at the bottom of a sloping field area, close to an existing industrial building. These trees are not visually significant in the landscape but do provide cover and shelter. The Hawthorn hedgerow on the east boundary provides a linear link to the deciduous woodland in the south east corner of the site. None of the trees is individually large size of stature.

Given the position of these trees in a corner area and the age and quality of the individual specimens, these trees are placed within Category C.

Trees TG2 (South east corner))
The trees of primary importance within this area are Oak and Ash. Individual trees of significant size and stature are present. The Oak in particular are very good specimens. These trees, considered as a group, are highly visible lying at the top of the site and also offer shelter and foraging to a variety of species. Whilst they are currently segregated by the chain link fence from land to the south and east, the trees are ecologically significant. The land to the south is part of a Local Wildlife Area

The key trees are identified in the plan above. Six large Oak and one large Ash form the main group of trees. The canopies of these trees merge. Slightly to the east is a single large Ash that stands apart and this tree is also considered to be of high vale. Further east is a group of closely spaced Ash and Hawthorn of mixed age. Some quite large semi-mature specimens are present but many are self-set juvenile specimens. Many are closely grouped on a sloping bank previously part of a field boundary.

The primary group of six Oak trees and one Ash tree is placed within Category A since these are high value trees in terms of landscape value and visual impact on the surrounding environment. The single mature Ash noted slightly to the east of the group of Oak is placed within Category B. The remaining trees are not considered to be of particularly high value as they are visually less prominent, are of lesser quality and are placed within Category C.

4. Tree Management

4.1 Arboricultural Assessment

Within the site surveyed the larger mature trees of greatest impact are all located in boundary positions where they can quite easily be retained within any proposed development. The table below identifies trees identified for removal and those that may potentially be retained.

Trees identified for or that can be considered for REMOVAL	**Trees recommended to be RETAINED if this is practical**
T1 – T6 Ash Category U: poor quality individual trees of low landscape significance.	TG1 Pine Category C: dense plantation of semi-mature Pine on a corner position. Not visually prominent but provide cover and screening to the industrial building nearby.
T7 Poplar Category C: large mature tree in a boundary position. Not of high landscape significance. Not of good quality.	TG4 Oak and Ash Category A / B: group of six Oak and one Ash of high quality. Supporting mature Ash of Cat B quality. Visually prominent and of high landscape value. Surrounding semi-mature and sapling Ash with Hawthorn of lesser quality.
T8 Poplar Category U: large over mature tree in a boundary position. Not of high landscape significance. Not of good quality.	

T9 Ash Category U: small tree of low landscape significance	
TG2 Poplar and Birch Category U: crowded juvenile trees of low landscape significance.	
TG3 Willow and Hawthorn Category U: over mature trees of poor quality.	

Removal of the trees noted in the table above is not a requirement but these trees are either of poor quality and/or of low landscape significance. The majority are small Ash and Poplar. The removal of the large Poplar and Willow specimens along the west boundary is recommended due to age for arboricultural reasons. Retention of these declining trees close to new development is not recommended as these will drop branches as the continue to decline. Removal of these trees will not reduce the screening of the site from the since the land on this side is already occupied by industrial buildings.

Retention of the mature Oak and Ash in the south east corner is strongly recommended since the quality and stature of these trees makes them of value in the wider landscape and for ecological purposes. In addition, these trees lie adjacent to a Local Wildlife Area and removal of the chain link fencing will help to incorporate this copse of trees and the surrounding smaller specimens into the wider landscape.

Retention of the Pine (TG1) is desirable to provide some additional cover, however, these are not high quality trees and they do not provide any strategic screening. It is possible that any development of the site may lead to these trees becoming isolated and of limited landscape value. If it is practical to retain these and maintain their links to the surrounding natural environment then retention is desirable.

4.2 Recommendations

The trees recommended for retention will need to be adequately protected during any approved development works. As a general rule at this site, measures to protect trees should follow the best practice principles set out in BS5837: Trees in Relation to Design, Development and Construction (2012). Prior to any construction or development work proceeding, the RPA's of individual trees to be retained should be marked out using the distances provided in the table within Appendix 1. Marking out should be completed by a person with arboricultural or horticultural expertise as individual trees will have root zones that may be affected by local conditions and allowances will need to be made to accommodate this. The best practice principles have been broadly summarised below

- All trees retained adjacent to the site should be protected by barriers or ground protection around the calculated Root Protection Area (RPA) and as indicated on any Tree Constraints Plan (TCP) that may be produced in association with the assessment.

- Any fencing required should be erected prior to commencement of construction and before demolition including erection of any temporary structures. Once set up fences should not be removed or altered without prior consultation with the arboricultural advisor.

- Arrangements should be made for an arboriculturist to supervise works and tree protection where trees are particularly vulnerable or sited close to access points.

- Pre-development works may be undertaken prior to the installation of fencing with the agreement of the local planning authority.

- All tree works should follow best practice procedures as set out in BS 3998

(2010). All trees should be maintained in good condition on site and be inspected annually (where overall condition requires) or every 2 years and after any major storm events, with safety a priority.

- Fencing should be clearly visible and suitable for the location, type and proximity of construction activity.

- It may be appropriate on some sites to use temporary site offices as components of the protection barriers.

- Where it has been agreed and shown on a Tree Protection Plan, construction access may take place within the RPA if suitable ground protection measures are in place (e.g. existing surfaced car park areas). In other areas this may comprise single scaffold boards over a compressible layer laid onto geo-textile materials for pedestrian movements. Vehicular movements over the RPA will require the calculation of expected loading and may require the use of proprietary protection systems.

- Once areas around trees have been protected by fencing, any works on the remaining site area may be commenced providing activities do not impinge on protected areas. Notices should be placed on fencing to indicate that operations are not permitted within the fenced area.

- Wide or tall loads etc should not come into contact with retained trees. Banksman should supervise transit of vehicles, jibs, booms etc where this is in close proximity to retained trees.

- Oil, bitumen, cement or other material that is potentially injurious to trees should not be stacked or discharged within 10m of a tree bole. No concrete mixing should be done within 10m of a tree. Allowance should be made for the slope of ground to prevent materials running towards the tree.

- No fires will be lit where flames are anticipated to extend to within 5m of tree foliage, branches or trunk, taking into consideration wind direction and size of fire.

- Notice boards, telephone cables or other services should not be attached to any part of a retained tree.

- Where it is deemed necessary to operate a wide or tall load, plant bearing booms, jibs and counterweights or other such equipment, as part of construction works, and such equipment would have potential to cause injurious contact with crown material i.e. low branches and limbs, of retained trees within the RPA fencing, it is best advised that appropriate, but limited tree surgery, be carried out beforehand to remove any obvious problem branches. This is classed as ‘Facilitation Pruning’ within BS 5837 (2012). Any such pruning should be undertaken in accordance with a specification prepared by an arboriculturalist.

- It is advised that a Pre-Commencement Site Meeting is held with contractors who are responsible for operating machinery, as described above. To firstly highlight the potential for damage occurring to tree crowns and to ensure that extra care is applied when manoeuvring machinery during such operations within close proximity to retained trees to avoid any contact.

- In the event of having caused any such branch or limb damage to retained trees it is strongly recommended that suitable tree surgery be carried out, in accordance with BS 3998 (2010) Recommendations for Tree Work, to correct the damage,

upon completion of development.

- All of the above precautionary measures should be applied to minimise the effect of any damage to long-term tree health and safety.

Prior to any of the larger trees being felled, particularly the Poplar and Willow on the west boundary, these should be inspected by an ecologist to ensure that there are no nesting birds present. These trees have all been confirmed as having ‘Low or Moderate’ Roost potential but no evidence of protected species was identified during the inspection.

Christopher Barker CEnv dipHort

Appendix 1: BS5837 Tree Schedule

Key:	Measurements	Age – Class	Overall Condition	BS 5837 2005 : Cascade Chart for Quality Assessment/Retention Category	Symbols:
	MS – Multi-stemmed	YNG-MAT-Young Mature	G – Good	A – High	< = less than
	Ht - Height in metres	SM – Semi-mature	F – Fair	B – Moderate	~ = approximately
	Stem – Stem Diameter at 1.5m in mm	Mat – Mature	P – Poor	C – Low	> = greater than
	Crown – Crown spread in metres	OM – Over mature	D – Dead	R – Trees for Removal	
	TD - Trunk division (height in metres)	**Est Yrs –** estimate of years remaining (>40 years; 20 –40 years; <20 years)		**Sub-categories:** **1** = mainly arboricultural values **2** = mainly landscape values **3** = mainly cultural values.	

RPA = Root protection area (equivalent to a circle with a radius 12 x the stem diameter for single stem trees and 10 x the basal diameter for trees with more than one stem arising below 1.5m above ground level).

Tree No	Species	Ht (m)	Stem Diam cm@ 1.5m	Canopy Spread (m)	Height of Crown Clearance	Age Class	Est yrs	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA (m^2)	RPA Radius (m)
TG1	50 no PINE (*Pinus sylvestris*)	10 - 15	<15 - 32	Varies up to 4m	Clearance 2m agl.	Y / SM	20	F	A group of densely planted Pine, many with high 'floating' canopy. Lightly branching, rather sparse irregular canopy. No bat roost potential. No nesting bird activity visible at the time of the survey. No obvious structural faults visible from ground level.	This group of trees are in a corner position close to an existing industrial building. Whilst not of high quality of high landscape significance these trees should be retained if it is practical to do so. If retained, RPA fencing will be required to protect roosts and canopy extremities.	C2	45	3.8

Tree No	Species	Ht (m)	Stem Diam cm@ 1.5m	Canopy Spread (m)	Height of Crown Clearance	Age Class	Est yrs	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA (m^2)	RPA Radius (m)
T1	ASH *(Fraxinus excelsior)*	9	31	N-4 S-4 E-4 W-3	Clearance 2m agl. Lowest Branch 2m on east	SM	20	F	A single trunk specimen with two leaders from 2.5m supporting a poorly developed open canopy. Low bat roost potential. No nesting bird activity visible at the time of the survey. No obvious structural faults visible from ground level.	Poor quality tree of low landscape significance.	U	n/a	n/a
T2	ASH *(Fraxinus excelsior)*	8	17	N-2 S-2 E-2 W-2	Clearance 2m agl.	Y	20	P	A single trunk specimen with two leaders from 1.5m supporting a poorly developed open canopy. Low bat roost potential. No nesting bird activity visible at the time of the survey. No obvious structural faults visible from ground level.	Poor quality tree of low landscape significance.	U	n/a	n/a
T3	ASH *(Fraxinus excelsior)*	11	34	N-4 S-4 E-5 W-4	Clearance 2m agl.	SM	20	P	A single trunk specimen with a damaged canopy where it crosses the fence line. Has a poorly developed open canopy. Low bat roost potential. No nesting bird activity visible at the time of the survey. No obvious structural faults visible from ground level.	Poor quality tree of low landscape significance.	U	n/a	n/a
T4	ASH *(Fraxinus excelsior)*	11	22	N-3 S-3 E-3 W-3	Clearance 2m agl.	SM	20	P	A single trunk specimen a poorly developed open canopy. Low bat roost potential. No nesting bird activity visible at the time of the survey. No obvious structural faults visible from ground level.	Poor quality tree of low landscape significance.	U	n/a	n/a

Tree No	Species	Ht (m)	Stem Diam cm@ 1.5m	Canopy Spread (m)	Height of Crown Clearance	Age Class	Est yrs	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA (m^2)	RPA Radius (m)
T5	ASH *(Fraxinus excelsior)*	9	23	N-3 S-3 E-3 W-3	Clearance 2m agl.	Y	20	P	A single trunk specimen with four leaders from 2.5m supporting a poorly developed open canopy. Low bat roost potential. No nesting bird activity visible at the time of the survey. No obvious structural faults visible from ground level.	Poor quality tree of low landscape significance.	U	n/a	n/a
T6	ASH *(Fraxinus excelsior)*	13	35	N-3 S-6 E-7 W-2	Clearance 2m agl.	SM	20	P	A single trunk specimen supporting a poorly developed unbalanced canopy with the lower branches on the west removed. Low bat roost potential. No nesting bird activity visible at the time of the survey. No obvious structural faults visible from ground level.	Poor quality tree of low landscape significance.	U	n/a	n/a
TG2	POPLAR / BIRCH *(Populus nigra / Betula pubescens)*	5 -9	<15 - 20	Varies up to 2m	0	Y	10 - 20	P	Very crowded self-set copse of young trees in a corner position.	Poor quality trees of low landscape significance	U	n/a	n/a
T7	Poplar *(Populus nigra)*	16	42 x 3	N-1 S-11 E-8 W-4	>5	M	10 - 20	P	Large tree with three trunks. Majority of canopy hangs over the perimeter to land adjacent. Significant dead wood. Poorly shaped and unbalanced crown. Moderate bat roost potential. No nesting bird activity visible at the time of the survey. No obvious structural faults visible from ground level BUT IN DECLINE.	Poor quality tree showing signs of decline. Consider removing for arboricultural reasons if development proceeds.	C2	55	4.2

Tree No	Species	Ht (m)	Stem Diam cm@ 1.5m	Canopy Spread (m)	Height of Crown Clearance	Age Class	Est yrs	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA (m^2)	RPA Radius (m)
T8	Poplar *(Populus nigra)*	12	40	N-3 S-1 E-8 W-0	>5	OM	10	P	Large tree with a dead stump visible. Remaining branch at ground level has regenerated to support a large unbalanced poorly shaped canopy Moderate bat roost potential. No nesting bird activity visible at the time of the survey. No obvious structural faults visible from ground level BUT IN DECLINE.	Poor quality tree showing signs of decline. Consider removing for arboricultural reasons if development proceeds.	U	n/a	n/a
TG3	3 No WILLOW *(Salix fragilis)*	14 - 17	30 - 60	Varies up to 6m	1	OM	10	P	Three large willow tree with dead wood and fallen branches visible. All have large, unbalanced poorly shaped canopies that merge. Under canopy Hawthorn providing ground cover. Moderate bat roost potential. No nesting bird activity visible at the time of the survey. No obvious structural faults visible from ground level BUT IN DECLINE.	Poor quality trees showing signs of decline. Consider removing for arboricultural reasons if development proceeds.	U	n/a	n/a
T9	ASH *(Fraxinus excelsior)*	8	10 x <15	N-3 S-3 E-3 W-3	Clearance 0m agl.	SM	20	P	A multi-stemmed specimen regenerating from a coppice. Low bat roost potential. No nesting bird activity visible at the time of the survey. No obvious structural faults visible from ground level.	Poor quality tree of low landscape significance.	U	n/a	n/a

Tree No	Species	Ht (m)	Stem Diam cm@ 1.5m	Canopy Spread (m)	Height of Crown Clearance	Age Class	Est yrs	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA (m^2)	RPA Radius (m)
TG2	OAK (*Quercus petraea*) ASH *(Fraxinus excelsior)*	10 - 20	35 - 65	Varies up to 7m	Clearance 2m agl.	M	20 - 40	G	A group of six DOMINANT OAK and two ASH trees. Supported by semi-mature Ash and Hawthorn and numerous juvenile specimens. Well developed, coarsely branching canopies are of excellent quality. Smaller specimens are very crowded. Moderate bat roost potential. No nesting bird activity visible at the time of the survey. No obvious structural faults visible from ground level.	High significant mature trees of good quality. Retain and protect mature Oak and Ash. Protect with fencing Thin out the smaller Ash and Hawthorn along the north edge of the woodland on the boundary slope.	A /B	191	7.8

Appendix 2: Site Photographs

Pine copse TG1.

Ash T2 –T5 along access road

Poplar copse TG2

Poplar T7 and T8 on west boundary

Willow TG3 in south west corner.

Mature Oak and Ash TG4 Category A

Dense semi-mature Ash / Hawthorn TG4 Cat C2

High quality Oak TG4

Large individual Ash in TG4 above juveniles