



Defence  
Infrastructure  
Organisation

Future Defence Storage and Redistribution Programme,  
Redevelopment of MOD Bicester  
C Site: Tree Survey  
BIC/OPA/DOC/20  
September 2011

**amec** 





# *Amenity Tree Care Ltd*

*Consulting Arboriculturalists*

Rachel Dimmick  
Entec UK Ltd

**MOD Bicester – Site C.**

## **PRELIMINARY TREE CONSTRAINTS SURVEY AND REPORT.**

### **Arboricultural Survey and Constraints Report**

**10<sup>th</sup> September 2010**



**T : 01829 770075**

**M : 07957 431 879**

**F : 01829 770141**

WILLOW HILL COTTAGE SCHOOL LANE BURWARDSLEY CHESTER  
CH3 9NX

**[www.amenitytree.com](http://www.amenitytree.com)**

**MOD Bicester – Site C.**

**PRELIMINARY TREE CONSTRAINTS SURVEY AND REPORT.**

**Arboricultural Survey and Constraints Report**

**10<sup>th</sup> September 2010**

	<b>Name</b>	<b>Signature</b>	<b>Date</b>
<b>Surveyor:</b>	Steven Shell		<b>7<sup>th</sup>/8<sup>th</sup>/9<sup>th</sup> September</b>
<b>Report Author:</b>	Steven Shell		<b>9<sup>th</sup> September</b>
<b>Checked by:</b>	Simon Brain		<b>10<sup>th</sup> September</b>

## Contents page

Description	Page number
Cover sheet	1- 2
Contents page	3
Report Introduction	4 – 7
Report keys – Tree condition, Age, Vigour and Table 1 – Cascade chart for tree quality assessment	8 – 9
Arboricultural summary	10-12
Arboricultural survey sheets	13
Appendix	
1 Specification for surface treatment in vicinity of retained trees	14-15
2 Trees and Construction	16-18
3 National Joint Utility Guideline 10 – Trees and services	19-22
4 Site manager - Do's and don'ts	23-24
5 Report glossary	25-28
6 TREE CONSTRAINTS PLAN Tree / group and shrubbery - Location, Canopy spread, Root protection areas (RPA), Retention value and Tree Protection Zones (TPZ).	29

# Amenity Tree Care Ltd

Consulting Arboriculturalists

## REPORT INTRODUCTION

**Report compiled for : Entec UK**

**Date of Inspection : 7<sup>th</sup>/8<sup>th</sup>/9<sup>th</sup> September**

**BRIEF :**

A) METHODOLOGY. Detailed tree survey of all standing trees on the site or adjacent to it, to conform to the specification indicated on correspondance and detailed in BS5837:2005 4.2.6.

B) ILLUSTRATIVE PLAN. The production of an accompanying tree constraints plan (TCP) for the area in order allows an assessment of relevant development constraints (in AutoCad based on supplied topographical data) for each site detailing;

- tree/group numbers
- crown spread of tree or tree group
- stem location (where included in the brief and excluded from supplied topo)
- Latin name abbreviation (eg QR)
- height in m
- colour coded retention value
- ultimate height of tree/s where this would cause an unreasonable obstruction of daylight in m, where appropriate
- Plot Tree Protection Zones (TPZ's based on Root Protection Areas's bounded by protection fencing having regard to post construction tree resentment issues).

C) REPORTING. The tree surveys will be represented as a single report for the site

THE TREES REFERRED TO IN THIS REPORT ARE LIVING ENTITIES AND ARE THEREFORE SUBJECT TO NATURAL PROCESSES. THEY WILL ALSO BE SUBJECT TO CHANGES IN THEIR NATURAL ENVIRONMENT CAUSED BY HUMAN ACTIVITIES AND WEATHER CONDITIONS. THEREFORE WE CAN NOT WHOLLY GUARANTEE THE CONDITION AND SAFETY OF THE TREES COMMENTED UPON BEYOND WHAT CAN REASONABLY BE ASSESSED FROM THE PROCEDURUSED. TREES HAVE NOT BEEN AERIALLY INSPECTED. WE RECOMMEND REGULAR INSPECTIONS AND ADVISE ON THE FREQUENCY AND TYPE OF INSPECTION. WE WOULD RECOMMEND THAT RE INSPECTIONS ARE CARRIED OUT WITHIN ONE YEAR OR WITHIN SPECIFIC STIPULATED TIMESCALES. NO ASSESSMENT HAS BEEN MADE OF SOIL CONDITIONS AND THE IMPACT OF SOIL CONDITIONS ON TREE COVER / BUILT ENVIRONMENT. NO ASSESSMENT HAS BEEN MADE FOR UNDERGROUND SERVICES, PROPOSED OR EXISTING, UNLESS OTHERWISE STATED. THE CONTENTS OF THIS REPORT ARE VALID FOR ONE YEAR. THIS PERIOD OF VALIDITY MAYBE REDUCED IN CASE OF ANY CHANGE IN CONDITIONS TO, OR IN PROXIMITY TO, THE TREE. THE REPORT IS FOR THE SOLE USE OF THE CLIENT AND REFERS ONLY TO THOSE TREES REFERRED TO WITHIN, USE BY ANU OTHER PERSON(S) IN ATTEMPTING TO USE OT CONTENTS FOR ANY OTHER PURPOSE RENDERS THE REPORT INVALID FOR THAT PURPOSE.

## REPORT INTRODUCTION

### Methodology

- 1.0.1 This report has been commissioned by the client to determine a preliminary tree survey in contemplation of the development for the identified land at the above site.
- 1.0.2 The site was visited as indicated above and the trees were assessed visually and compiled in the following survey sheets as either numbered individuals or tree groups.
- 1.0.3 Each individual tree has been assessed with general regard to condition, health and amenity, development context, retention value and commented upon in the survey sheets as per the brief.
- 1.0.4 Tree groups, woodland and hedgerows have been identified where congruent management would normally prevail and in accordance with guidance from BS 5837:2005. Data entered for the groups is therefore a representative average figure for the group attributes (expressed as av. in the survey sheets).
- 1.0.5 The trees have been given classified according to the “desirability to retain”. This assessment rates the amenity conferred by each tree and is based on the assumption that development will occur on the site and having given consideration to the recommendations of this report and BS5837 2005 Table One. Retention values have been indicated in the survey sheets and are in accordance with Table One of the Standard.
- 1.0.6 Refer to page eight for an explanation of the report keys used throughout.
- 1.0.7 Recommendations for remedial works (Preliminary Management Recommendations) have been provided on the basis of current condition.
- 1.0.8 A Tree Constraints Plan (TCP) has been produced detailing Root Protection Areas (RPA) and is based on BS5837:2005 – Table 2. The TCP also identifies a Provisional Tree Protection Zone (TPZ) following an assessment of the likely tolerance of damage, root morphology, site conditions, topography, ultimate height and issues of post construction tree resentment such as nuisance. The TPZ represents a realistic assessment of the area of ground required to remain undisturbed to facilitate meaningful and long term successful tree retention. Further allowance for a greater distance may be required following detailed arboricultural impact assessment.

## REPORT INTRODUCTION

### Further considerations and recommendations

- 1.0.9 An Arboricultural Implication Study (AIS) will need to be determined based on a forthcoming draft development proposal to determine the effects of development on trees. A draft Method Statement for general Arboricultural works may require production and finalisation in an Arboricultural Implication Study (AIS) following design layout submission and review.
- 1.0.10 The AIS will provide further advice on the retention, or otherwise, of some individual trees or groups referred to in this report. The AIS will include wider tree protection measures, special measure areas, protective fencing requirements around TPZ's and construction methodology. A list of recommended arboricultural planning conditions may be compiled within the main AIS.
- 1.0.11 Any development proposal within or immediately adjacent to the TPZ's identified in the AIS will require site supervision by a competent arborist at monthly during construction and at specifically nominated areas in the construction period. Formal provision will need to be made for on site supervision during construction by a client arborist and a timetable for such supervision will need to be produced within the final construction method working statement.
- 1.0.12 The inclusion of car parking facilities or access within TPZ's may be considered necessary and possible, subject to further confirmation of an AIS recommendation. The inclusion of new dwellings within exclusion zones will need to be avoided. The use of TPZ's as open spaces is a suitable design option.
- 1.0.13 Specifications for protective fencing have been provided and location must be finalised in the AIS and Construction Method Statement format. All fencing will need to be agreed with a client arborist, Local Planning Authority and fully installed prior to construction commencement.
- 1.0.14 A specification for the breakout of hard surfaces has been provided within this report to advise the construction team of the required measures when operating within or adjacent to TPZ's. All operations of this type will need to be conducted under on site arborist supervision and in accordance with a final Method Statement.
- 1.0.15 A record of protective measures taken on the site during development should be produced in order to act as a benchmark for any future third party claims.

## REPORT INTRODUCTION

### Limitations

- 1.0.16 This report provides information on the selection of trees to be retained on the site through the retention value assessment. The final determination of trees to be retained, specifications for remedial works and / or protective measures will be subject to an Arboricultural Implication Study, following design layout submission and review.
- 1.0.17 Recommendations for further inspection and / or investigation have been provided such as aerial inspection, internal inspection or re-inspection due to difficulty on site whilst conducting Visual Tree Assessment (VTA). Such investigations will need to be conducted as soon as possible in order to confirm the condition and wider assessments of trees within the site.
- 1.0.18 The trees on the site are subject to a general re-inspection schedule of twelve months, regardless of development plans from which a requirement for further monitoring, assessments or remedial works will be judged.
- 1.0.19 When development has commenced, retained trees will require monthly monitoring during construction and specific supervision at key points on the site. This is to be confirmed within a final Method Statement and AIS format. Future remedial works will be required and should be assessed in one year following this survey.
- 1.0.20 No assessment has been made of soil conditions/implications of soil conditions and root extent is indeterminate from this survey. We would urge that soil type is ascertained and tree related implications are assessed such as foundation type/depth in accordance with N.H.B.C. guidelines.
- 1.0.21 This report has not searched for the existence of statutory legislation applying to the site, such as TPO or Conservation area. The client is strongly advised to check for any such legislation and if present the findings to ATC for review.
- 1.0.22 No information is available to assess any tree implications of service lines, we would urge this information is assessed for tree significance. An extract from the National Joint Utilities Guidelines for planning of services has been included to inform the design team of this aspect of trees.
- 1.0.23 The survey boundaries have been taken from the supplied topographical drawing. Boundary clarification may be required at various locations due to the relatively high number of trees appearing in or on boundary hedges.

## **Report Keys**

### **CONDITION KEY**

For the purposes of ascertaining the general overall physiological arboricultural condition of the trees referred to in the survey sheets the following key should be used.

Those trees marked “**Good**” can generally be classed as having good overall structural and physiological condition. Most usually specimens in good / excellent condition. They generally have few and less significant arboricultural defects than those trees classed as “B” or “C”. Usually contribute significantly to the local or site amenity.

Those trees marked “**Fair**” can generally be classed as having reasonable structural and physiological condition. They may contain smaller areas of included bark within either major or minor fork junctions. They may be subject to single or multiple fungal invasion, bacteria or virus. In the case of fungal invasion or bacteria the Latin name of the species has been stated. They may be subject to minor crown dieback, unusually pale or smaller foliage or have been subjected to outside influences such as restriction of rooting spread, vandalism or mechanical damage, but should be viewed as in generally good overall condition

Those trees marked “**Poor**” can generally be classed as having poor overall structural or physiological condition. They may contain large areas of included bark either within major or minor fork junctions. They may be subject to single or multiple fungal invasion, bacteria or virus. In the case of fungal invasion or bacteria the Latin name has been stated. They may contain splits or cracks throughout the branching structure. They may be subject to significant crown dieback or exhibit unusually pale or small foliage, be defoliated or dead. They may be subject to outside influences such as restriction of rooting spread, vandalism or mechanical damage and costly to retain.

### **AGE CLASS KEY**

**NP** – Newly planted

**Y** - Young - Tree/shrub in first third of life expectancy

**MA**– Middle Mature – Tree in 2<sup>nd</sup> third of life expectancy

**M** – Mature in final third of life expectancy.

**OM** – Over Mature – Decline in physiological functions.

### **REMAINING CONTRIBUTION (in years)**

<10

10-20

20-40

>40

### **RETENTION VALUE KEY**

The trees have been classified according to a desirability to retain. This rates the amenity conferred on each tree / tree group and is based on the assumption that development will occur and given consideration to the main report findings. The categories are as follows:

**Table 1 - Cascade chart for tree quality assessment**

TREES FOR REMOVAL			
Category and definition	Criteria		
Category R 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	<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><b>NOTE:</b> Habitat reinstatement may be appropriate (e.g. R category tree used as a bat roost: installation of bat box in nearby tree).</p>		
TREES TO BE CONSIDERED FOR RETENTION			
Category and definition	Criteria - Subcategories		
Category A <b>Those of high quality and value:</b> in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested)	<b>1. Mainly arboricultural values</b> 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)	<b>2. Mainly landscape values</b> 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)	<b>3. Mainly cultural values including conservation</b> Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)
Category B <b>Those of moderate quality and value:</b> those in such a condition as to make a significant contribution (a minimum of 20 years is suggested)	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)	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	Trees with clearly identifiable conservation or other cultural benefits
Category C <b>Those of low quality and value:</b> 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 150mm	Trees not qualifying in higher categories	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	Trees with very limited conservation or other cultural benefits
		<b>NOTE:</b> 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 150mm should be considered for relocation	

## ARBORICULTURAL SUMMARY

Site C is bordered by open agricultural land to the west and residential dwellings to the East. The arboricultural management of the site appears to have been limited to only individual specimens predominantly within falling distance of the central road network and those located close to the entrance to any of the main buildings on site. A small proportion of dead specimens were noted across the site these trees are highlighted in red on the survey sheets and dashed on the Tree Constraints Plan.

The vast majority of individual trees growing across the site are young deciduous species that have predominantly been classified as C2 specimens providing only limited landscape value. Individual category B1 trees are represented to a lesser degree, for example (T21-T28-T31). These trees are of a moderate quality and value that would make a significant contribution for a minimum period of 40 years. The larger blocks of woodland and hedgerows have been classified as B2.

A high percentage of the C2 groups consist of predominantly *Aesculus Hippocastanum* these trees are planted in linear groups along the main access road through the centre of the site which extends from the north of the site to the south east corner. The vast majority of these trees are showing visual signs of infection by *Phytophthora* (Bleeding Canker) and *Pseudomonas syringae* pv *aesculi*. This has greatly reduced the life expectancy of these trees and one would expect to see considerable losses within the next 5 to 10 years.

The vast majority of *Aesculus Hippocastanum* is showing infection by Horse Chestnut Leaf Miner (*Cameraria ohridella*) although there is currently little research into the effect on tree health as most trees studied appear to flush consistently each year.

The site is bordered to the North and West by mature hedgerows and small stands of woodland. The hedgerows bordering the site have been left unmanaged and are of considerable size and density and are providing important screening of the site. These hedgerows form important links between the sections of woodlands located within the site predominantly to the South of the site. Further consideration should be given into preparing suitable management plans to further enhance and protect these hedgerows.

Please note that hedgerows within England are protected from removal by the Hedgerows Regulations 1997. Various criteria specified in the regulations are used to identify important hedgerows for wildlife, landscape or historical reasons.

The larger blocks of woodland to the South of the site (G149-G151) are predominately made up of a continuous canopy of *Crataegus monogyna* and *Prunus spinosa* the canopy is punctuated at uneven intervals by larger specimen trees such as *Quercus robur* and *Acer pseudoplatanus* the woodland edges are interspersed with species that include *Rubus fruticosus* and *Rosa canina*.

Located within the site to the South West is three large blocks (G146-G148) of woodland (G146) being the most varied for species and is predominately broadleaf in character much of this block of woodland have an upper canopy layer consisting of *Fraxinus excelsior* with a mature understory of predominantly *Crataegus monogyna* and *Prunus spinosa*. (G147-G148) are less varied and consist primarily of *Crataegus monogyna* and *Prunus spinosa* that have formed a dense continuous canopy that has restricted the growth of any specimen trees.

Management of these small pockets of woodland appears to have lapsed and would benefit from the production of long term management plans to improve the overall stock density and increase habitat. Due to the thick understory of *Crataegus monogyna* and *Prunus spinosa* natural regeneration will be limited. The woodlands are diverse in habitat and appearance and form an important part of the green infrastructure on this site.

**ARBORICULTURAL SURVEY SHEETS**



Tree / Tree / group / group /	Common wood wood Name	Latin Name	Age Class	Stem dia. in mm	Single or multi stem	Ht. crown height	Lower crown height			Pysio. CS-N			Pysio. CS-E		Pysio. CS-S		Pysio. CS-W Cond.		Preliminary Management Recommendations		Root Protection Area (RPA)
							CS- N	CS-E	CS-S	CS-W	Cond.	Retention Value	years	Rem. contrib. in	Arboricultural Comments						
T	1 Horse Chestnut	Aesculus hippocastanum	M	600 SS		14.5	3	6.5	7.5	6	6 F	C2	<10	Exudation on stem. Poor wound occlusion on stem. Bleeding canker.	Infected with Leaf Miner and Bleeding Canker	7.2					
T	2 Hawthorn	Crataegus monogyna	M	375 SS		10	2	3	4.5	4	3 G	C2	>40	Reasonable overall condition	No works required	4.5					
T	3 Weeping Willow	Salix X chrysocoma	M	450 SS		13	1.5	4	6	3	6.5 G	C2	>40	Crown distorted due to group pressure. Low branches over road/footpath.	Crown lift to 5m over road.	5.4					
T	4 Weeping Willow	Salix X chrysocoma	M	375 SS		13	1.5	3	3.5	3	6.5 G	C2	>40	Crown distorted due to group pressure. Low branches over road/footpath.	Crown lift to 5m over road.	4.5					
T	5 Weeping Willow	Salix X chrysocoma	M	400 SS		13	1.5	5.5	4.5	3	7 G	C2	>40	Crown distorted due to group pressure. Low branches over road/footpath.	Crown lift to 5m over road.	4.8					
T	6 White Poplar	Populus alba	M	400 SS		15.5	2	5.5	6	5.5	5.5 G	C2	>40	Reasonable overall condition	No works required	4.8					
T	7 Common Oak	Quercus robur	M	450 SS		14	1.5	6	7	6.5	6.5 G	B1	>40	Surface roots sustained bark damage.	No works required	5.4					
T	8 White Poplar	Populus alba	M	375 SS		14.5	0.5	5	4.5	5	4.5 G	C2	>40	Reasonable overall condition	No works required	4.5					
T	9 White Poplar	Populus alba	M	375 SS		14.5	0.5	3	5	5	4.5 G	C2	>40	Reasonable overall condition	No works required	4.5					
T	10 White Poplar	Populus alba	M	375 SS		14.5	0.5	5	4.5	5	4.5 G	C2	>40	Reasonable overall condition	No works required	4.5					
T	11 White Poplar	Populus alba	M	375 SS		14.5	0.5	5	5	5	5 G	C2	>40	Reasonable overall condition	No works required	4.5					
T	12 Sycamore	Acer pseudoplatanus	Y	150 SS		5	1	1.5	1	1	1 G	C2	20-40	Decay present on stem. Major bark wounding on stem.	No works required	1.8					
T	13 Horse Chestnut	Aesculus hippocastanum	Y	180 SS		6.5	1.5	2	2	3	2 P	C2	<10		No works required	2.2					
T	14 Weeping Willow	Salix X chrysocoma	M	500 SS		14	1	5	7.5	5	5.5 G	C2	>40	Major deadwood in crown.	No works required	6					
T	15 Weeping Willow	Salix X chrysocoma	M	500 SS		14	1	5	7.5	6.5	4 G	C2	>40	Major deadwood in crown.	No works required	6					
T	16 Horse Chestnut	Aesculus hippocastanum	MA	250 SS		6	1.5	3	3	3	3.5 P	C2	<10	Major deadwood in crown.	No works required	3					
T	17 Horse Chestnut	Aesculus hippocastanum	Y	180 SS		5	2	1.5	1.5	2	1.5 P	C2	<10	Infected with Leaf Miner and Bleeding Canker	No works required	2.2					
T	18 Hawthorn	Crataegus monogyna	Y	180 SS		5	2	1.5	1.5	2	1.5 G	C2	>40	Reasonable overall condition	No works required	2.2					
T	19 Italian Alder	Alnus cordata	Y	350 SS		7	2	4	2.5	3.5	3.5 P	C2	<10	Declining. Dieback in crown.	No works required	4.2					

Tree / Tree / group / group / wood wood Ref. No.	Common Name	Latin Name	Age Class	Stem dia. in mm	Single or multi stem	Ht. height	Lower crown height			Pysio. CS-N CS-E CS-S CS-W Cond.			Arboricultural Comments	Rem. contrib. in years	Retention Value	Root Protection Area (RPA)
							CS-N	CS-E	CS-S	CS-W	Cond.					
T 20 Willow	Weeping Willow	Salix X chrysocoma	M	500 SS	5	2	1	1	1	1 G	C1	20-40	Pollard.	No works required	6	
T 21 Willow	Weeping Willow	Salix X chrysocoma	M	600 SS	5	2	8.5	7	6.5	6 G	B2	>40	Surface roots sustained bark damage.	No works required	7.2	
T 22 Chestnut	Horse Chestnut	Aesculus hippocastanum	Y	160 SS	5	1.5	1.5	1.5	1.5 P	C2	<10	Infected with Leaf Miner and Bleeding Canker	No works required	1.9		
T 23 Chestnut	Horse Chestnut	Aesculus hippocastanum	Y	160 SS	5	1.5	1.5	1.5	1.5 P	C2	<10	Infected with Leaf Miner and Bleeding Canker	No works required	1.9		
T 24 Chestnut	Horse Chestnut	Aesculus hippocastanum	Y	160 SS	5	1.5	1.5	1.5	1.5 P	C2	<10	Infected with Leaf Miner and Bleeding Canker	No works required	1.9		
T 25 Chestnut	Horse Chestnut	Aesculus hippocastanum	Y	160 SS	5	1.5	1.5	1.5	1.5 P	C2	<10	Infected with Leaf Miner and Bleeding Canker	No works required	1.9		
T 26 Common Oak	Quercus robur	M	400 SS	11.5	2	6	5.5	6.5	6.5 G	B1	>40	Reasonable overall condition	No works required	4.8		
T 27 Common Oak	Quercus robur	M	400 SS	12.5	0.5	4.5	4.5	4.5	5 G	B1	>40	Reasonable overall condition	No works required	4.8		
T 28 Turkey Oak	Quercus cerris	M	500 SS	10.5	3	4	5	5.5	4.5 G	B2	>40	Reasonable overall condition	No works required	6		
T 29 Ash	Fraxinus excelsior	M	375 SS	9.5	2	3	4.5	4	4.5 G	C2	>40	Reasonable overall condition	No works required	4.5		
T 30 Ash	Fraxinus excelsior	M	400 MS	10	0.5	6.5	7	6	7.5 G	C2	>40	Broken branches in crown. Poor wound occlusion on stems	No works required	4		
T 31 Common Oak	Quercus robur	M	375 SS	9.5	2	5.5	4.5	4.5	4.5 G	B1	>40	Good overall condition	No works required	4.5		
T 32 Hawthorn	Crataegus monogyna	Y	150 SS	3	1	1	1	1	1 G	C2	20-40	Major bark wounding on stem. Epicormics on stem.	No works required	1.8		
T 33 Common Oak	Quercus robur	MA	220 SS	7.5	1	4	2.5	2.5	4 G	B1	>40	Good overall condition	No works required	2.6		
T 34 Alder	Alnus glutinosa	Y	150 SS	2.5	1	1	1	1	1 G	C2	<10	Spindly habit. Stunted habit.	No works required	1.8		
T 35 Crack Willow	Salix fragilis	Y	150 SS	2.5	1	1	1	1	1 P	C2	<10	Declining. Spindly habit. Dieback in crown.	No works required	1.8		
T 36 Norway Maple	Salix fragilis, Acer platanoides	Y	180 SS	7.5	1	3.5	1.5	2.5	3 P	C2	<10	Declining. Spindly habit. Dieback in crown.	No works required	2.2		
T 37 Common Oak	Quercus robur	MA	220 SS	8	2	2	3.5	2	2 G	B2	>40	Good overall condition	No works required	2.6		
T 38 Sycamore	Acer pseudoplatanus	MA	220 SS	8	2	2	3.5	2	2 G	B2	>40	Stem divides below 1.5m. Included bark present in main fork.	No works required	2.6		
T 39 Common Oak	Quercus robur	MA	220 SS	8	2	2	3.5	2	2 G	B2	>40	Crown distorted due to group pressure.	No works required	2.6		

Tree / Tree / group / group / wood wood Ref. No.	Common Name	Latin Name	Age Class	Stem dia. in mm	Single or multi stem	Ht. height	Lower crown height				Pysio. CS-N			Pysio. CS-E		Pysio. CS-S		Pysio. CS-W		Pysio. Cond.		Reten- tion Value	Rem. contrib. in years	Preliminary Management Recommendations		Root Protection Area (RPA)
							CS-N	CS-E	CS-S	CS-W	Cond.	Cond.	Cond.	Cond.	Cond.	Cond.	Cond.	Cond.	Cond.	Cond.	Cond.	Cond.	Cond.	Cond.	Cond.	Cond.
T	40 Common Oak Weeping Willow	<i>Quercus robur</i> <i>Salix X chrysocoma</i>	MA M	220 SS 500 SS		8 14	2 0.5	2 6	3.5 6	2 6	B2 B2															2.6
T	41 Horse Chestnut	<i>Aesculus hippocastanum</i>	M	375 SS		10.5	2	6	4	4	C2															6
T	42 Ash Weeping Willow	<i>Fraxinus excelsior</i> <i>Salix X chrysocoma</i>	M M	375 SS 450 SS		10.5 11.5	2 2	7.5 4.5	4.5 3	5 G	C2														4.5	
T	43 Horse Chestnut	<i>Aesculus hippocastanum</i>	M	450 SS		12	2	5.5	5.5	5.5 P	C2														5.4	
T	44 Horse Chestnut	<i>Aesculus hippocastanum</i>	M	450 SS		12	2	5.5	5.5	5.5 P	C2														5.4	
T	45 Small-leaved Lime	<i>Tilia cordata</i>	M	450 SS		12	2	5.5	5.5	5.5 P	C2														5.4	
T	46 Weeping Willow	<i>Salix X chrysocoma</i>	M	450 SS		12	2	5.5	2.5	5.5 G	B2														5.4	
T	47 Small-leaved Lime	<i>Tilia cordata</i>	M	450 SS		12	2	3	3.5	6	B2														5.4	
T	48 Weeping Willow	<i>Salix X chrysocoma</i>	M	450 SS		12	2	2	3.5	4	C2														5.4	
T	49 Horse Chestnut	<i>Aesculus hippocastanum</i>	M	350 SS		9.5	2	2.5	3.5	4.5	4 P														4.2	
T	50 Horse Chestnut	<i>Aesculus hippocastanum</i>	M	450 SS		9.5	2	4.5	4.5	6.5	4 P	C2													5.4	
T	51 Weeping Willow	<i>Salix X chrysocoma</i>	M	500 SS		10.5	2	6.5	6	2.5	2.5 G	C2													6	
T	52 Apple	<i>Malus</i>	MA	170 SS		5	2	2.5	1.5	1.5	3 G	C2													2	
T	53 Apple	<i>Malus</i>	MA	170 SS		5	2	2.5	2	2.5	3 G	C2													2	
T	54 Laburnum	<i>Laburnum anagyroides</i>	MA	325 MS		5	2	2	2.5	2 P	C2														3.2	

Tree / Tree / group / wood wood Ref. No.	Common Name	Latin Name	Age Class	Stem dia. in mm	Single or multi stem	Ht. height	Lower crown height	CS- N	CS- E	CS- S	CS- W	Pysio. Cond.	Retention years	Rem. contrib. in years	Preliminary Management Recommendations		Root Protection Area (RPA)
															Value		
T 56	Apple Weeping Willow	Malus Salix X chrysocoma	MA M	190 SS 450 SS	5 14	2 0.5	2 6	2 7	2.5 7	2 4.5	2 7	C2 B2	20-40 >40	Reasonable overall condition Reasonable overall condition	No works required No works required	2.3 5.4	
T 57	Weeping Willow	Salix X chrysocoma	M	450 SS	14	0.5	6	7	7.5	4 G	B2	>40					
T 58	Weeping Willow	Salix X chrysocoma	M	450 SS	14	0.5	6	7	4.5	7 G	B2	>40	Reasonable overall condition	No works required	5.4		
T 59	Apple	Malus	M	375 SS	10.5	1.5	4	5	4.5	5.5 G	B2	>40	Reasonable overall condition	No works required	4.5		
T 60	Ash	Fraxinus excelsior	M	450 MS	10.5	1.5	5	5	5.5 G	C2	>40	Multiple stems at ground level. Included bark present in main fork.				4.5	
T 61	Apple Weeping Willow	Malus Salix X chrysocoma	M M	375 SS 450 SS	10.5 12.5	2 2	4 6	5 5.5	4.5 7.5	5.5 G 5.5 G	B2 B2	>40 >40	Reasonable overall condition Reasonable overall condition	No works required No works required	4.5 5.4		
T 62	Weeping Willow	Salix X chrysocoma	M	450 SS	12.5	2	7	5.5	7.5	5.5 G	B2	>40	Reasonable overall condition	No works required	5.4		
T 63	Weeping Willow	Salix X chrysocoma	M	450 SS	12.5	2	7	5.5	7.5	5.5 G	B2	>40	Reasonable overall condition	No works required	5.4		
T 64	Ash	Fraxinus excelsior	M	450 SS	13	2	7	6	7.5	5.5 G	B2	>40	Multiple stems at ground level. Included bark present in main fork.			5.4	
T 65	Crack Willow	Salix fragilis	M	500 MS	10	1	4.5	5	5.5	5 G	C2	20 - 40	Broken branches in crown.	No works required	5		
T 66	Weeping Willow	Salix X chrysocoma	M	500 SS	13.5	1	6.5	3	7	5 G	C2	20 - 40			6		
T 67	Norway Maple	Acer platanoides	M	350 SS	13.5	1	3.5	4	7	3 G	C2	20 - 40	Surface roots sustained bark damage. Crown distorted due to group pressure. Poor wound occlusion on stem	No works required	4.2		
T 68	Weeping Willow	Salix X chrysocoma	M	400 SS	13.5	1	6.5	5.5	4	7 G	C2	20 - 40	Surface roots sustained bark damage. Crown distorted due to group pressure. Poor wound occlusion on stem	No works required	4.8		
T 69	Weeping Willow	Salix X chrysocoma	M	400 SS	13.5	1	5	7	6.5	5 G	C2	20 - 40	Surface roots sustained bark damage. Crown distorted due to group pressure. Poor wound occlusion on stem	No works required	4.8		
T 70	Weeping Willow	Salix X chrysocoma	M	450 SS	13.5	1	6.5	7	7.5	7.5 G	C2		Reasonable overall condition	No works required	5.4		
T 71	Common Oak	Quercus robur	M	400 SS	9	2	5	5	6	4.5 G	B2	>40	Reasonable overall condition	No works required	4.8		
T 72	Ash	Fraxinus excelsior	Y	160 SS	5	2	2	2	2	2 G	B1	>40	Good overall condition	No works required	1.9		

Tree / Tree / group / group / wood wood Ref. No.	Common Name	Latin Name	Age Class	Stem dia. in mm	Single or multi stem	Lower crown height	Pysio. CS-N CS-E CS-S CS-W Cond.			Retention Value	Rem. contrib. in years	Arboricultural Comments	Preliminary Management Recommendations	Root Protection Area (RPA)
							<10	10 - 20	>20					
T 73	Horse Chestnut	Aesculus hippocastanum	M	290 SS	7	2	3	2	2 D	R	Dead.	No works required	3.5	
T 74	Italian Alder	Alnus cordata	M	375 SS	6.5	2	4	3.5	4	C2	20 - 40	Surface roots sustained bark damage. Decay present on stem. Major bark wounding on stem.	4.5	
T 75	Italian Alder	Alnus cordata	M	375 SS	6.5	2	4	3.5	4	C2	20 - 40	Surface roots sustained bark damage. Decay present on stem. Major bark wounding on stem.	4.5	
T 76	Weeping Willow	Salix X chrysocoma	M	400 SS	11	0.5	5.5	4	7	C2	>40	Reasonable overall condition	No works required	4.8
T 77	Weeping Willow	Salix X chrysocoma	M	400 SS	11	0.5	5.5	4	7	C2	>40	Reasonable overall condition	No works required	4.8
T 78	Weeping Willow	Salix X chrysocoma	M	400 SS	7.5	0.5	5.5	4	5.5	C2	>40	Reasonable overall condition	No works required	4.8
T 79	Ash	Fraxinus excelsior	M	375 SS	9.5	2	5	4	6	C2	>40	Included bark present in main fork. Broken branches in crown.	No works required	4.5
T 80	Weeping Willow	Salix X chrysocoma	M	400 SS	11	0.5	6.5	5.5	5.5	C2	>40	Reasonable overall condition	No works required	4.8
T 81	Weeping Willow	Salix X chrysocoma	M	400 SS	13	1.5	7	5.5	6	C2	>40	Reasonable overall condition	No works required	4.8
T 82	Weeping Willow	Salix X chrysocoma	M	400 SS	13	1.5	7	5.5	6	C2	>40	Reasonable overall condition	No works required	4.8
T 83	Weeping Willow	Salix X chrysocoma	M	450 SS	13	1.5	7	7.5	6	B2	>40	Reasonable overall condition	No works required	5.4
T 84	Apple	Malus	Y	150 SS	4	1	2	2	1.5	C2	>40	Reasonable overall condition	No works required	1.8
T 85	Apple	Malus	Y	150 SS	4	1	2	2	2	C2	>40	Reasonable overall condition	No works required	1.8
T 86	Hawthorn	Crataegus monogyna	MA	200 SS	6	2	3	3	2	C2	>40	Reasonable overall condition	No works required	2.4
T 87	Weeping Willow	Salix X chrysocoma	M	450 SS	13.5	1	6.5	6	6	B2	>40	Reasonable overall condition	No works required	5.4
T 88	Weeping Willow	Salix X chrysocoma	M	450 SS	13.5	1	6.5	4	4	B2	>40	Reasonable overall condition	No works required	5.4
T 89	Common Oak	Quercus robur	MA	190 SS	8	2	2	4	3.5	3.5 G	B2	Crown distorted due to group pressure.	No works required	2.3
T 90	Indian Horse Chestnut	Aesculus indica	MA	200 SS	8	2	4	4	2	4.5 G	B2	Crown distorted due to group pressure.	No works required	2.4
T 91	Weeping Willow	Salix X chrysocoma	M	450 SS	13	1	6	5	7.5	B2	>40	Reasonable overall condition	No works required	5.4
T 92	Wild Cherry	Prunus avium	M	325 SS	7.5	1.5	5	4	4	C2	20-40	Reasonable overall condition	No works required	3.9

Tree / Tree / group / group / wood wood Ref. No.	Common Name	Latin Name	Age Class	Stem dia. in mm	Single or multi stem	Ht. crown height	Lower crown height	Preliminary Management Recommendations			Arboricultural Comments	Retention Value years	Physio. Cond.		
								CS- N	CS- E	CS- S					
T	93 Common Oak	<i>Quercus robur</i>	M	375 SS	8	1	6	4.5	6	4.5 G	B1	>40	Good overall condition	No works required	4.5
T	94 Common Oak	<i>Quercus robur</i>	M	375 SS	8	1	5	5	5	5 G	B1	>40	Good overall condition	No works required	4.5
T	95 Silver Maple	<i>Acer saccharinum</i>	M	375 SS	12.5	2	4.5	4.5	4.5	4.5 G	B1	>40	Good overall condition	No works required	4.5
T	95 Italian Alder	<i>Alnus cordata</i>	M	280 SS	5.5	2	3	2.5	3.5	3.5 P	R	<10	Declining. Dieback in crown. Low bud/leaf density.	No works required	3.4
T	96 Chestnut	<i>Aesculus hippocastanum</i>	M	450 SS	14	2	4	4	4	4 P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	No works required	5.4
T	97 Chestnut	<i>Aesculus hippocastanum</i>	M	450 SS	14	2	4	4	4	4 P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	No works required	5.4
T	98 Silver Maple	<i>Acer saccharinum</i>	M	500 SS	14	3	6	6	6	6 G	B1	>40	Good overall condition	No works required	6
T	99 Silver Maple	<i>Acer saccharinum</i>	M	375 SS	12.5	2	4.5	4.5	4.5	4.5 G	B1	>40	Good overall condition	No works required	4.5
T	100 Hawthorn	<i>Crataegus monogyna</i>	M	230 SS	6.5	2	3	3	3	3 F	C2	<10	Low vitality. Declining. Dieback in crown.	No works required	2.8
T	101 Poplar	<i>Populus serotina</i>	M	450 SS	13	2	5	5	5	5 G	C2	>40	Reasonable overall condition	No works required	5.4
T	102 Rowan	<i>Sorbus aucuparia</i>	MA	170 SS	4	1.5	3	2	2	3 G	C2	20-40	Crown distorted due to group pressure.	No works required	2
T	103 Willow	<i>Salix X chrysocoma</i>	M	450 SS	12.5	1	6	7.5	6	6 G	B2	>40	Good overall condition	No works required	5.4
T	104 Italian Alder	<i>Alnus cordata</i>	M	240 SS	6	2	4	2.5	3	3 D	R	<10	Dead.	No works required	2.9
T	105 Willow	<i>Salix X chrysocoma</i>	M	450 SS	11.5	2	6	6	6	6 G	B2	>40	Good overall condition	No works required	5.4
T	109 Chestnut	<i>Aesculus hippocastanum</i>	M	400 SS	13.5	2	4	4	4	4 P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	No works required	4.8
T	110 Willow	<i>Salix X chrysocoma</i>	M	400 SS	14	0.5	7	6	5.5	5.5 G	B2	>40	Good overall condition	No works required	4.8

Tree / Tree / group / group / wood wood Ref. No.	Common Name	Latin Name	Age Class	Stem dia. in mm	Single or multi stem	Ht. height	Lower crown height	Pysio. CS-N	CS-E	CS-S	CS-W	Cond.	Preliminary Management Recommendations		Root Protection Area (RPA)	
													Rem. contrib. in years	Retention Value		
T	111 Horse Chestnut	Aesculus hippocastanum	Y	170 SS	5	2	1.5	1.5	1.5	1.5 P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	No works required	2	
T	112 Weeping Willow	Salix X chrysocoma	M	350 SS	10.5	0.5	5	5	5	5 G	C2	20-40	Reasonable overall condition	No works required	4.2	
T	113 Weeping Willow	Salix X chrysocoma	Y	170 SS	6	0.5	3	3	3	3 G	C2	>40	Reasonable overall condition	No works required	2	
T	114 Italian Alder	<b>Alnus cordata</b>	Y	160 SS	5	1	1.5	1.5	1.5 D	R	<10	Dead.	No works required	1.9		
T	115 Common Oak	Quercus robur	M	500 SS	15	3	7	6.5	6.5	3 G	B2	>40	Good overall condition	No works required	6	
T	116 Common Oak	Quercus robur	M	500 SS	15	3	6	7	3	6.5 G	B2	>40	Good overall condition	No works required	6	
T	117 Crack Willow	Salix fragilis	M	170 MS	7.5	0.5	3	3	3	3 G	C2	20-40	Reasonable overall condition	No works required	1.7	
T	118 White Willow	Salix alba	OM	700 MS	14	2	6	6	6	6 F	C2	<10	Multiple stems at ground level. Included bark present in main fork.	No works required	7	
T	119 Weeping Willow	Salix X chrysocoma	M	450 SS	10.5	1.5	5	5	5	5 G	C2	20-40	Reasonable overall condition	No works required	5.4	
T	120 Weeping Willow	Salix X chrysocoma	M	450 SS	10.5	1.5	5.5	5.5	6.5	6.5 G	C2	20-40	Reasonable overall condition	No works required	5.4	
T	121 Apple	<b>Malus</b>	M	240 MS	5	1	2.5	2.5	2.5 P	R	<10	Decay present on stem. Major bark wounding on stem. Stem divides at ground level. Included bark present in main fork.	No works required	2.4		
T	122 Aspen	Populus tremula	M	280 SS	12	2	2.5	2.5	2.5 G	C2	20-40	Reasonable overall condition	No works required	3.4		
T	123 Weeping Willow	Salix X chrysocoma	M	400 SS	13.5	0.5	7	7	6	6 G	B2	>40	Good overall condition	No works required	4.8	
T	124 Apple	Malus	M	270 SS	8	1.5	4	5	3.5	4 G	C1	20-40	Reasonable overall condition	No works required	3.2	
T	125 White Willow	Salix alba	M	400 SS	11	2.5	5.5	4	4 F	C1	<10	Major deadwood in crown.	No works required	4.8		

Tree / Tree / group / wood		Common Name		Latin Name		Age Class	Stem dia. in mm	Single or multi stem	Lower crown height	CS- N	CS- E	CS- S	CS-W Cond.	Pysio. Value	Retention years	Rem. contrib. in years	Preliminary Management Recommendations		Root Protection Area (RPA)
Ref. No.	group / wood	Common Name	Latin Name	Age Class	Stem dia. in mm	Single or multi stem	Lower crown height	CS- N	CS- E	CS- S	CS-W Cond.	Pysio. Value	Retention years	Rem. contrib. in years	Arboricultural Comments				
G	1	Horse Chestnut	<i>Aesculus hippocastanum</i>	M	500 SS	12.5	2	7	6	5	5 P	C2	<10	Declining. Exudation on stem. Dieback in crown.	No works required	6			
G	2	White Poplar	<i>Populus alba</i>	M	375 SS	16	2.5	1.5	4	1 G	C2	>40	Part of linear group. Surface roots sustained bark damage. Crown distorted due to group pressure.	No works required	4.5				
G	3	White Poplar	<i>Populus alba</i>	M	375 SS	16	2.5	1.5	1	1 G	C2	>40	Part of linear group. Surface roots sustained bark damage. Crown distorted due to group pressure.	No works required	4.5				
G	4	White Poplar	<i>Populus alba</i>	M	400 SS	16	2.5	2	1.5	4 G	C2	>40	Part of linear group. Surface roots sustained bark damage. Crown distorted due to group pressure.	No works required	4.8				
G	5	White Poplar	<i>Populus alba</i>	M	400 SS	16	2.5	1.5	2	4	1 G	C2	>40	Part of linear group. Surface roots sustained bark damage. Crown distorted due to group pressure.	No works required	4.8			
G	6	Sycamore	<i>Acer pseudoplatanus</i>	Y	160 SS	5	0.5	3	2.5	3.5	2.5 G	C2	>40	Reasonable overall condition	No works required	1.9			
G	7	Italian Alder	<i>Alnus cordata</i>	M	350 SS	7	1.5	3	2.5	2.5	3 P	R	<10	Poor shape & form. Declining. Dieback in crown.	Remove tree and root.	4.2			
G	8	Sycamore	<i>Acer pseudoplatanus</i>	MA	180 SS	7	2	2.5	2	3	3.5 G	C2	>40	Surface roots sustained bark damage. Major bark wounding on stem.	No works required	2.2			
G	9	Sycamore	<i>Acer pseudoplatanus</i>	MA	180 SS	7	2	1.5	1.5	1.5 G	C2	>40	Surface roots sustained bark damage. Major bark wounding on stem.	No works required	2.2				
G	10	Sycamore	<i>Acer pseudoplatanus</i>	MA	170 SS	6	2	2	1.5	1.5 G	C2	>40	Surface roots sustained bark damage. Major bark wounding on stem.	No works required	2				
G	11	Sycamore	<i>Acer pseudoplatanus</i>	Y	150 SS	5	1	1.5	1	1 G	C2	20-40	Decay present on stem. Major bark wounding on stem.	No works required	1.8				
G	12	Silver Birch	<i>Betula pendula</i>	Y	160 SS	7.5	0.5				G	C2	>40	Reasonable overall condition	No works required	1.9			
G	13	Apple	<i>Malus</i>	Y	170 SS	5	1.5	1.5	1	1.5 G	C2	20-40	Major bark wounding on stem.	No works required	2				

Tree / Tree / group / wood wood Ref. No.	Common Name	Latin Name	Age Class	Stem dia. in mm	Single or multi stem	Ht. crown height	Preliminary Management Recommendations			Rem. contrib. in years	Root Protection Area (RPA)
							CS-N	CS-E	CS-S	CS-W	
G	Common Alder Silver Birch Goat Willow Aspen	<i>Alnus glutinosa, Betula pendula, Salix caprea, Populus tremula</i>	MA	180 SS	8.5	0.5 N/A	N/A	N/A	N/A	G	>40
G	14 Willow Birch	<i>Betula pendula</i>	MA	180 SS	8.5	0.5 N/A	N/A	N/A	N/A	G	C2
G	15 Silver Birch	<i>Crataegus monogyna, Prunus spinosa, Quercus robur</i>	M	150 MS	7.5	0 N/A	N/A	N/A	N/A	G	C2
G	Hawthorn Blackthorn 16 Common Oak	<i>Crataegus monogyna, Prunus spinosa</i>	M	150 MS	7.5	0 N/A	N/A	N/A	N/A	G	C2
G	17 Blackthorn	<i>Crataegus monogyna, Prunus spinosa</i>	M	150 MS	7.5	0 N/A	N/A	N/A	N/A	G	C2
G	18 Blackthorn	<i>Crataegus monogyna, Prunus spinosa</i>	M	150 MS	7.5	0 N/A	N/A	N/A	N/A	G	C2
G	19 Blackthorn	<i>Crataegus monogyna, Prunus spinosa</i>	M	150 MS	7.5	0 N/A	N/A	N/A	N/A	G	C2
G	20 Blackthorn Apple	<i>Crataegus monogyna, Prunus spinosa, Malus</i>	M	150 MS	7.5	0 N/A	N/A	N/A	N/A	G	C2
G	21 Common Oak	<i>Quercus robur</i>	MA	220 SS	7	2	3	2	3.5 G	C2	>40
G	22 Ash Rowan	<i>Fraxinus excelsior, Sorbus aucuparia</i>	MA	190 SS	8	1	3	2.5	1.5 G	C2	>40
G	23 Ash Rowan Common Alder	<i>Fraxinus excelsior, Sorbus aucuparia, Alnus glutinosa</i>	MA	190 SS	8	1	3	2.5	1.5 G	C2	>40

Tree / Tree / group / group / wood wood Ref. No.	Common Name	Latin Name	Age Class	Stem dia. in mm	Single or multi stem	Ht. crown height	Preliminary Management Recommendations			Rem. contrib. in years	Arboricultural Comments	Root Protection Area (RPA)
							CS- N	CS- E	CS- S			
G	Ash Rowan Common Alder	<i>Fraxinus excelsior,</i> <i>Sorbus aucuparia,</i> <i>Alnus glutinosa</i>	MA	190 SS	8	1	3	3	2	3 G	C2	>40
G	Ash Rowan Common Alder	<i>Fraxinus excelsior,</i> <i>Sorbus aucuparia,</i> <i>Alnus glutinosa</i>	MA	190 SS	8	1	3	3	2	3 G	C2	>40
G	Ash Rowan Common Alder	<i>Fraxinus excelsior,</i> <i>Sorbus aucuparia,</i> <i>Alnus glutinosa,</i> <i>Quercus robur</i>	MA	190 SS	8	1	3	3	2	3 G	C2	>40
G	27 Ash Red Horse	<i>Fraxinus excelsior</i>	Y	100 SS	8	3	2	2	2	2 C2	G	>40
G	28 Chestnut Common	<i>Aesculus carnea</i>	Y	350 SS	8	2	4	4	4	4 C2	G	20-40
G	29 Alder	<i>Alnus glutinosa</i>	MA	180 SS	7	2	3	3.5	3	3.5 C1	G	20-40
G	30 Red Horse Chestnut	<i>Aesculus carnea</i>	MA	280 SS	9	2	3	3	3	3 C2	F	20-40
G	31 Scots Pine	<i>Pinus sylvestris</i>	Y	100 SS	5	1.5	1	1	1	1 C2	G	20-40
G	32 Red Horse Chestnut	<i>Aesculus carnea,</i> <i>Crataegus</i> <i>monogyna</i>	MA	220 SS	7	1	3	2.5	2.5	2.5 C2	F	20-40
G	33 Red Horse Chestnut	<i>Aesculus carnea</i>	MA	230 SS	8	2	3	3	3	3 C1	P	<10
G	34 Red Horse Chestnut	<i>Aesculus carnea</i>	MA	230 SS	8	2	3	3	3	3 C1	P	<10
G	35 Red Horse Chestnut	<i>Aesculus carnea</i>	MA	230 SS	8	2	3	3	3	3 C1	P	<10
G	34 Common Alder	<i>Alnus glutinosa</i>	Y	150 SS	5	0.5	1	1	1	1 G	C2	>40
G	Common Alder Silver Birch Blackthorn Hawthorn	<i>Alnus glutinosa,</i> <i>Betula pendula,</i> <i>Prunus spinosa,</i> <i>Crataegus</i> <i>monogyna, Quercus</i> <i>robur</i>	M	150 MS	10	0.5 N/A	N/A	N/A	N/A	B2	>40	Very mature mixed group all forming one block of canopy. Very important habitat. No works required
G	35 Common Oak											1.5

Tree / Tree / group / wood wood Ref. No.	Common Name	Latin Name	Age Class	Stem dia. in mm	Single or multi stem	Ht. height	Lower crown			Pysio. CS-W Cond.			Retention Value	Rem. contrib. in years	Arboricultural Comments	Root Protection Area (RPA)
							CS- N	CS- E	CS- S	CS- W	Cond.					
G 36	Common Alder Silver Birch Blackthorn Hawthorn Common Oak	<i>Alnus glutinosa</i> , <i>Betula pendula</i> , <i>Prunus spinosa</i> , <i>Crataegus monogyna</i> , <i>Quercus robur</i>	M	150 MS	10	0.5 N/A	N/A	N/A	N/A	G	B2	>40		Very mature mixed group all forming one block of canopy. Very important habitat. No works required	1.5	
G 37	Common Alder Silver Birch Blackthorn Hawthorn Common Oak Elder Ash	<i>Alnus glutinosa</i> , <i>Betula pendula</i> , <i>Prunus spinosa</i> , <i>Crataegus monogyna</i> , <i>Quercus robur</i> , <i>Sambucus nigra</i> , <i>Fraxinus excelsior</i>	M	150 MS	10	0.5 N/A	N/A	N/A	N/A	G	B2	>40		Very mature mixed group all forming one block of canopy. Very important habitat. No works required	1.5	
G 38	Crack Willow	<b>Salix fragilis</b>	M	220 SS	3.5	1	1	1	1	D	R	<10	Dead. Pollard.	No works required	2.6	
G 39	Silver Birch Crack Willow	<i>Betula pendula</i> , <i>Salix fragilis</i>	Y	150 SS	5	1	1	1	1	G	C2	>40	Reasonable overall condition	No works required	1.8	
G 40	Norway Maple	<i>Acer platanoides</i>	Y	150 SS	3.5	1	1	1	1	G	C2	>40	Reasonable overall condition	No works required	1.8	
G 41	Swedish Whitebeam	<i>Sorbus intermedia</i>	M	260 SS	6	1.5	2	2	2	G	B2	>40	Good overall condition	No works required	3.1	
G 42	Swedish Rowan	<i>Sorbus intermedia</i> , <i>Sorbus aucuparia</i>	M	180 SS	6.5	1.5	2	2	2	G	B2	>40	Good overall condition	No works required	2.2	
G 43	Horse Chestnut	<i>Aesculus hippocastanum</i>	M	450 SS	9.5	2	6	6	5	P	C2	<10	Exudation on stem. Poor wound occlusion on stems	No works required	5.4	
G 44	Horse Chestnut Silver Maple	<i>Aesculus hippocastanum</i> , <i>Acer saccharinum</i>	M	450 SS	10.5	2	6.5	4	5	P	C2	<10	Exudation on stem. Poor wound occlusion on stems	No works required	5.4	
G 45													Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	No works required	4.8	
G 46	Horse Chestnut	<i>Aesculus hippocastanum</i>	M	400 SS	11.5	2	4.5	4.5	4.5	P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	No works required	4.8	

Tree / Tree / group / group / wood wood Ref. No.	Common Name	Latin Name	Age Class	Stem dia. in mm	Single or multi stem	Ht. height	Lower crown			Pysio. CS-N CS-E CS-S CS-W Cond.			Rem. contrib. in years	Root Protection Area (RPA)	Preliminary Management Recommendations
							CS- N	CS-E	CS-S	CS-W	Cond.				
G 47	Horse Chestnut	Aesculus hippocastanum	M	400 SS	11.5	2	5	5	4.5	4.5 P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	No works required	
G 48	Horse Chestnut	Aesculus hippocastanum	M	375 SS	10	2	4	4.5	4.5	4 P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	No works required	
G 49	Horse Chestnut	Aesculus hippocastanum	M	375 SS	10	2	4	4.5	4.5	4 P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	No works required	
G 50	Horse Chestnut	Aesculus hippocastanum	M	375 SS	10	2	4	4.5	4.5	4 P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	No works required	
G 51	Horse Chestnut	Aesculus hippocastanum	Y	150 SS	3	1	1	1	1	1 P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	No works required	
G 52	Common Oak	Quercus robur	Y	160 SS	6	2	2	1.5	2	2 G	B2	>40	Good overall condition	No works required	
G 53	Hawthorn Blackthorn	Crataegus monogyna, Prunus spinosa	M	150 MS	5	0	N/A	N/A	N/A	N/A	G	B2	>40	Mature group forming one complete canopy.	No works required
G 54	Hawthorn Blackthorn	Crataegus monogyna, Prunus spinosa	M	150 MS	5	0	N/A	N/A	N/A	N/A	G	B2	>40	Mature group forming one complete canopy.	No works required
G 55	Horse Chestnut	Aesculus hippocastanum	M	375 SS	10	2	4	5	4.5	4 P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	No works required	

Tree / Tree / group / wood wood Ref. No.	Common Name	Latin Name	Age Class	Stem dia. in mm	Single or multi stem	Ht. height	Preliminary Management Recommendations			Rem. contrib. in years	Retention Value	Arboricultural Comments	Root Protection Area (RPA)	
							CS- N	CS- E	CS- S					
G	Horse Chestnut	Aesculus hippocastanum	M	375 SS	10	2	4.5	4	4 P	<10		Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	4.5	
G	74 Apple Haworth	Malus, Crataegus monogyna	MA	180 SS	5	2	2	2	2 G	>40	Reasonable overall condition	No works required	2.2	
G	76 Apple Haworth	Malus, Crataegus monogyna	Y	150 SS	4	1	2	2	2 G	>40	Reasonable overall condition	No works required	1.8	
G	77 Apple Rowan	Malus, Sorbus aucuparia	Y	160 SS	4	1.5	3	2	2 G	>40	Reasonable overall condition	No works required	1.9	
G	78 Apple Rowan	Malus, Sorbus aucuparia	Y	160 SS	4	1.5	3	2	2 G	>40	Dieback in crown.	No works required	1.9	
G	79 Apple Rowan	Sorbus aucuparia,	Y	150 SS	4	1	1	1	1.5 G	>40	Reasonable overall condition	No works required	1.8	
G	80 Rowan Apple	Malus	Y								Mature group forming one complete canopy. High habitat value	No works required	1.5	
G	81 Hawthorn Blackthorn	Crataegus monogyna, Prunus spinosa	M	150 MS	5	0 N/A	N/A	N/A	N/A	B2	>40	Mature group forming one complete canopy. High habitat value	No works required	1.5
G	82 Hawthorn Blackthorn	Crataegus monogyna, Prunus spinosa	M	150 MS	5	0 N/A	N/A	N/A	N/A	B2	>40	Mature group forming one complete canopy. High habitat value	No works required	1.5
G	83 Hybrid Black Poplar	Populus serotina	MA	270 SS	13	2	2.5	2.5	2.5 G	>40	Reasonable overall condition	No works required	3.2	
G	84 Hybrid Black Poplar	Populus serotina	MA	270 SS	13	2	2.5	2.5	2.5 G	>40	Reasonable overall condition	No works required	3.2	
G	85 Hybrid Black Poplar	Populus serotina	MA	270 SS	13	2	2.5	2.5	2.5 G	>40	Reasonable overall condition	No works required	3.2	
G	86 Italian Alder	Alnus cordata	Y	150 SS	3	1	1	1	1 G	B2	>40	Good overall condition	No works required	1.8
G	87 Italian Alder	Malus	Y	150 SS	3	1	1	1	1 G	B2	>40	Good overall condition	No works required	1.8
G	88 Italian Alder	Alnus cordata	Y	150 SS	3	1	1	1	1 G	B2	>40	Good overall condition	No works required	1.8
G	89 Hybrid Black Poplar	Populus serotina	M	280 SS	13	2.5	3	3	3 G	B2	>40	Good overall condition	No works required	3.4
G	90 Italian Alder	Alnus cordata	Y	150 SS	3.5	1	1	1	1 G	C2	>40	Reasonable overall condition	No works required	1.8
G	91 Indian Horse Chestnut	Aesculus indica, Laburnum anagyroides	Y	150 SS	4	1	2	2	2 G	C2	>40	Reasonable overall condition	No works required	1.8
G	92 Common Oak	Quercus robur	MA	180 SS	6.5	2	2.5	2.5	2.5 G	B2	>40	Good overall condition	No works required	2.2
G	93 Crab Apple Goat Willow	Malus sylvestris, Salix caprea	M	220 SS	5.5	2	2	2	2 G	C2	20-40	Decay present on stem. Major bark wounding on stem.	No works required	2.6

Tree / Tree / group / wood Ref. No.	Common Name	Latin Name	Age Class	Stem dia. in mm	Single or multi stem	Ht. height	Lower crown height	CS- N	CS- E	CS- S	CS-W Cond.	Pysio. Value	Retention years	Rem. contrib. in years	Preliminary Management Recommendations		Root Protection Area (RPA)
															Arboricultural Comments		
G 94	Horse Chestnut	Aesculus hippocastanum	M	450 SS	14	2	4.5	4.5	4.5 P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	No works required	5.4			
G 95	Horse Chestnut	Aesculus hippocastanum	M	450 SS	14	2	4.5	4.5	4.5 P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	No works required	5.4			
G 96	Swedish Whitebeam	Sorbus intermedia	M	290 SS	6.5	2	2.5	2.5	2.5 G	B2	>40	Good overall condition	No works required	3.5			
G 97	Horse Chestnut	Aesculus hippocastanum	M	450 SS	14	2	4.5	4.5	4.5 P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	No works required	5.4			
G 98	Apple	Malus	Y	160 SS	5	1.5	2	2	2 G	C2	20-40	Cavity on stem. Major bark wounding on stem.	No works required	1.9			
G 99	Hawthorn	Crataegus monogyna	Y	160 SS	5	1.5	2.5	2.5	2.5 D	R	<10	Dead.	No works required	1.9			
G 100	Aspen	Populus tremula	M	290 MS	11.5	2	3.5	3.5	3.5 G	C2	20-40	Reasonable overall condition	No works required	2.9			
G 101	Ash Common Oak	Fraxinus excelsior, Quercus robur	M	250 SS	9	2	3	3	3 G	B2	>40	Good overall condition	No works required	3			
G 102	Ash Common Oak	Fraxinus excelsior, Quercus robur	M	250 SS	9	2	3	3	3 G	B2	>40	Good overall condition	No works required	3			
G 103	Norway Maple	Acer platanoides	Y	150 SS	4.5	2	2	2	2 G	B2	>40	Good overall condition	No works required	1.8			
G 104	Silver Birch Rowan	Betula pendula, Sorbus aucuparia	Y	150 SS	6	2	1.5	1.5	1.5 G	C2	>40	Reasonable overall condition	No works required	1.8			
G 105	Common Oak	Quercus robur	Y	170 SS	5.5	1	2	2	2 G	B2	>40	Good overall condition	No works required	2			
G 106	Italian Alder Rowan	Alnus cordata, Sorbus aucuparia	Y	150 SS	4	1	1.5	1.5	1.5 G	C2	20-40	Reasonable overall condition	No works required	1.8			
G 107	Common Oak	Quercus robur	MA	200 SS	8.5	1.5	3.5	3.5	3.5 G	B2	>40	Good overall condition	No works required	2.4			

Tree / Tree / group / group / wood wood Ref. No.	Common Name	Latin Name	Age Class	Stem dia. in mm	Single or multi stem	Ht. mm	Lower crown height	CS-N	CS-E	CS-S	CS-W	Cond.	Pysio. Retention Value	Rem. contrib. in years	Arboricultural Comments	Preliminary Management Recommendations		Root Protection Area (RPA)
G	108 Chestnut	Aesculus hippocastanum	M	400 SS		13.5	2	4	4	4	4 P	C2	<10			Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	No works required	4.8
G	109 Chestnut	Aesculus hippocastanum	Y	150 SS		3.5	1	1.5	1.5	1.5	1.5 P	C2	<10			Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	No works required	1.8
G	110 Chestnut	Aesculus hippocastanum	M	400 SS		13.5	2	4.5	4.5	4.5	4.5 P	C2	<10			Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	No works required	4.8
G	111 Chestnut	Aesculus hippocastanum	M	400 SS		13.5	2	4.5	4.5	4.5	4.5 P	C2	<10			Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	No works required	4.8
G	112 Common Lime	Tilia X europaea	M	350 SS		10	1	4	4	4	4 G	B2	>40			Good overall condition	No works required	4.2
G	113 Common Oak	Quercus robur	M	290 SS		8.5	1.5	4	4	4	4 G	B2	>40			Good overall condition	No works required	3.5
G	114 Weeping Willow	Salix X chrysocoma	Y	200 SS		5	1.5	3	3	3	3 G	C2	>40			Reasonable overall condition	No works required	2.4
G	115 Weeping Willow	Salix X chrysocoma, Populus tremula	Y	200 SS		5	1.5	3	3	3	3 G	C2	>40			Reasonable overall condition	No works required	2.4
G	116 Common Oak	Quercus robur	M	290 SS		8.5	1.5	4	4	4	4 G	B2	>40			Good overall condition	No works required	3.5
G	117 Ash	Fraxinus excelsior	MA	180 SS		6.5	1.5	3	3	3	3 G	B2	>40			Good overall condition	No works required	2.2
G	118 Ash	Fraxinus excelsior	MA	180 SS		6.5	1.5	3	3	3	3 G	B2	>40			Good overall condition	No works required	2.2
G	119 Aspen	Populus tremula	M	250 SS		7.5	2	3	3	3.5	3.5 G	C2	>40			Good overall condition	No works required	3
G	120 Common Oak	Quercus robur	M	270 SS		9.5	2	3.5	3.5	3.5	3.5 G	B2	>40			Good overall condition	No works required	3.2
G	121 Common Oak	Quercus robur	M	270 SS		9.5	2	3.5	3.5	3.5	3.5 G	B2	>40			Good overall condition	No works required	3.2

Tree / Tree / group / group / wood wood Ref. No.	Common Name	Latin Name	Age Class	Stem dia. in mm	Single or multi stem	Ht. height	Lower crown height	Preliminary Management Recommendations			Root Protection Area (RPA)			
								CS- N	CS- E	CS- S	CS-W Cond.			
G 122 Hawthorn		<i>Crataegus monogyna</i>	M	150 MS	5.5	0		G	C2	>40	Good overall condition	No works required 1.5		
G 123 Aspen		<i>Populus tremula</i>	M	350 SS	11	2	4	4	4 G	C2	20-40	Good overall condition	No works required 4.2	
G 124 Willow	Weeping Willow	<i>Salix X chrysocoma</i>	M	450 SS	13.5	0.5	6	6	6 G	B2	>40	Good overall condition	No works required 5.4	
G 125 Ash		<i>Fraxinus excelsior</i>	M	250 SS	8	0.5	3	3	3 F	C2	<10	Declining.	No works required 3	
G 126 Ash		<i>Fraxinus excelsior</i>	M	250 MS	9	0.5	3	3	3 F	C2	<10	Declining. Unable to inspect stem due to ivy.	No works required 2.5	
G 127 Chestnut	Horse Chestnut	<i>Aesculus hippocastanum</i>	Y	150 SS	5	1	2	2	2 P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	No works required 1.8	
G 128 Hawthorn	Horse Chestnut	<i>Aesculus hippocastanum, Crataegus monogyna</i>	Y	150 SS	5	1	2	2	2 P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy	No works required 1.8	
G 129 Hawthorn		<i>Crataegus monogyna</i>	Y	150 MS	2.5	0 N/A	N/A	N/A	N/A	G	C2	>40	Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape	1.5
G 130 Hawthorn		<i>Crataegus monogyna</i>	Y	150 MS	2.5	0 N/A	N/A	N/A	N/A	G	C2	>40	Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape	No works required 1.5
G 131 Hawthorn		<i>Crataegus monogyna</i>	Y	150 MS	2.5	0 N/A	N/A	N/A	N/A	G	C2	>40	Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape	No works required 1.5
G 132 Hawthorn		<i>Crataegus monogyna</i>	Y	150 MS	2.5	0 N/A	N/A	N/A	N/A	G	C2	>40	Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape	No works required 1.5

Tree / Tree / group / group / wood wood Ref. No.	Common Name	Latin Name	Age Class	Stem dia. in mm	Single or multi stem	Ht. height	Lower crown height	CS-N	CS-E	CS-S	CS-W	Cond.	Pysio. Value	Retention years	Rem. contrib. in years	Preliminary Management Recommendations		Root Protection Area (RPA)
G 133 Hawthorn		Crataegus monogyna	Y	150 MS	2.5	0 N/A	N/A	N/A	N/A	N/A	N/A	G	C2	>40		Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape	No works required	1.5
G 134 Hawthorn		Crataegus monogyna	Y	150 MS	2.5	0 N/A	N/A	N/A	N/A	N/A	N/A	G	C2	>40		Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape	No works required	1.5
G 135 Hawthorn		Crataegus monogyna	Y	150 MS	2.5	0 N/A	N/A	N/A	N/A	N/A	N/A	G	C2	>40		Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape	No works required	1.5
G 136 Hawthorn		Crataegus monogyna	Y	150 MS	2.5	0 N/A	N/A	N/A	N/A	N/A	N/A	G	C2	>40		Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape	No works required	1.5
G 137 Hawthorn		Crataegus monogyna	Y	150 MS	2.5	0 N/A	N/A	N/A	N/A	N/A	N/A	G	C2	>40		Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape	No works required	1.5
G 138 Hawthorn		Crataegus monogyna	Y	150 MS	2.5	0						G	C2	>40		Good overall condition	No works required	1.5
G 139 Rowan		Sorbus aucuparia	Y	150 SS	3.5	0.5	1.5	1.5	1.5	1.5	1.5	G	B2	>40		Good overall condition	No works required	1.8
G 140 Rowan		Sorbus aucuparia	Y	150 SS	3.5	0.5	1.5	1.5	1.5	1.5	1.5	G	B2	>40		Good overall condition	No works required	1.8
		Crataegus monogyna, Salix fragilis	M	190 MS	10	2	8	8	8	8	8	G	C2	<10		Structually poor group of multiple stemmed Willow and a dense understory of Hawthorn	No works required	1.9
G 141 Crack Willow		Malus, Alnus cordata	M	220 SS	8	2	2.5	2.5	2.5	2.5	2.5	G	C2	20-40		Reasonable overall condition	No works required	2.6
G 142 Alder		Alnus cordata	MA	180 SS	7	1.5	2.5	2.5	2.5	2.5	2.5	G	C2	20-40		Reasonable overall condition	No works required	2.2
G 143 Italian Alder		Carpinus betulus	Y	150 SS	5	1	1.5	1.5	1.5	1.5	1.5	G	C2	20-40		Reasonable overall condition	No works required	1.8

Tree / Tree / group / wood Ref. No.	Common Name	Latin Name	Age Class	Stem dia. in mm	Single or multi stem	Ht. height	Lower crown height			Pysio. CS-N CS-E CS-S CS-W Cond.			Retention years	Rem. contrib. in years	Arboricultural Comments	Preliminary Management Recommendations	Root Protection Area (RPA)
							CS-N	CS-E	CS-S	CS-W	Cond.						
G 145	Hybrid Poplar	<i>Populus serotina</i>	M	270 SS	11.5	2.5	2.5	2.5	2.5	2.5 G	C2	20-40	Reasonable overall condition	No works required	3.2		
G 146	Hawthorn Ash Blackthorn Elder	<i>Crataegus monogyna, Fraxinus excelsior, Prunus spinosa, Sambucus nigra</i>	M	150 MS	11	0 N/A	N/A	N/A	N/A	N/A G	B2	>40	Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape	No works required	1.5		
G 147	Hawthorn Ash Blackthorn Elder	<i>Crataegus monogyna, Fraxinus excelsior, Prunus spinosa, Sambucus nigra</i>	M	150 MS	11	0 N/A	N/A	N/A	N/A	N/A G	B2	>40	Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape	No works required	1.5		
G 148	Hawthorn Ash Blackthorn Elder Hybrid Black Poplar	<i>Crataegus monogyna, Fraxinus excelsior, Prunus spinosa, Sambucus nigra, Populus serotina</i>	M	150 MS	11	0 N/A	N/A	N/A	N/A	N/A G	B2	>40	Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape	No works required	1.5		
G 149	Hawthorn Ash Blackthorn Elder Hybrid Black Poplar	<i>Crataegus monogyna, Fraxinus excelsior, Prunus spinosa, Sambucus nigra</i>	M	150 MS	11	0 N/A	N/A	N/A	N/A	N/A G	B2	>40	Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape	No works required	1.5		
G 150	Hawthorn Ash Blackthorn Elder Hybrid Black Poplar Goat Willow	<i>Crataegus monogyna, Fraxinus excelsior, Prunus spinosa, Sambucus nigra, Populus serotina, Salix caprea</i>	M	150 MS	11	0 N/A	N/A	N/A	N/A	N/A G	B2	>40	Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape	No works required	1.5		
G 151	Common Lime Silver Maple	<i>Tilia X europea, Acer saccharinum</i>	M	270 SS	9.5	1.5	3	3	3	3 G	B2	>40	Good overall condition	No works required	3.2		

Tree / Tree / group / group / wood wood Ref. No.	Common Name	Latin Name	Age Class	Stem dia. in mm	Single or multi stem	Ht. height	Lower crown height	Preliminary Management Recommendations			Rem. contrib. in years	Root Protection Area (RPA)	
								CS-N	CS-E	CS-S	CS-W		
G	Horse 153 Chestnut	Aesculus hippocastanum	M	400 SS		12	2	5	5	5 P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy
G	Horse 154 Chestnut	Aesculus hippocastanum	M	400 SS		12	2	5	5	5 P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy
G	Horse 155 Chestnut	Aesculus hippocastanum	M	400 SS		12	2	5	5	5 P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy
G	Horse 156 Chestnut	Aesculus hippocastanum	M	400 SS		12	2	5	5	5 P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy
G	Laburnum 157 Apple	Laburnum anagyroides, Malus	Y	150 SS		5	1	1.5	1.5	1.5 P	C2	<10	Reasonable overall condition No works required
G	Horse 158 Chestnut	Aesculus hippocastanum	M	400 SS		12	2	5	5	5 P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy
G	Horse 159 Chestnut	Aesculus hippocastanum	Y	170 SS		5	2	2	2	2 P	C2	<10	Reasonable overall condition, some visible signs of decline associated with bleeding canker and leaf miner. Limited life expectancy
G	160 Hawthorn	Crataegus monogyna	Y	150 MS		6	0	0	0	0 G	B2	>40	Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape No works required

Tree / Tree / group / wood wood Ref. No.	Common Name	Latin Name	Age Class	Stem dia. in mm	Single or multi stem Ht.	Lower crown height	Preliminary Management Recommendations			Rem. contrib. in years	Retention Value	Arboricultural Comments	Root Protection Area (RPA)
							CS- N	CS- E	CS- S				
G 161 Hawthorn	Crataegus monogyna	Y	150 MS	6	0	0	0	0	0 G	B2	>40	Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape	No works required
G 162 Hawthorn	Crataegus monogyna	Y	150 MS	6	0	0	0	0	0 G	B2	>40	Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape	No works required
G 163 Hawthorn	Crataegus monogyna	Y	150 MS	6	0	0	0	0	0 G	B2	>40	Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape	No works required
G 164 Hawthorn	Crataegus monogyna	Y	150 MS	6	0	0	0	0	0 G	B2	>40	Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape	No works required
G 165 Blackthorn	Crataegus monogyna, Prunus spinosa	Y	150 MS	6	0	0	0	0	0 G	B2	>40	Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape	No works required
G 166 Hawthorn	Crataegus monogyna	MA	150 SS	5.5	0.5	2	2	2	2 G	C2	>40	Reasonable overall condition	No works required
G 167 Hawthorn	White Willow Salix alba, Crataegus monogyna	Y	150 MS	3.5	0 N/A	N/A	N/A	N/A	N/A	G	20-40	Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape	No works required
G 168 Hawthorn	Salix alba, Crataegus monogyna	Y	150 MS	3.5	0 N/A	N/A	N/A	N/A	N/A	G	C2	Part of a linear group providing an important wildlife habitat. Well managed and contributing to the landscape	No works required
G 103 Aspen	Populus tremula	Y	150 SS	4.5	2	2	2	2	2 G	B2	>40	Good overall condition	No works required

Tree / Tree / group / group / wood wood		Common Name	Latin Name	Age Class	Stem dia. in mm	Single or multi stem	Lower crown height	CS- N	CS- E	CS-S	CS-W	Cond.	Pysio. Retention Value	Rem. contrib. in years	Arboricultural Comments	Preliminary Management Recommendations	Root Protection Area (RPA)
Ref. No.	Ref. No.			Y	150   MS	5	0			G	C2		<10	Rosehip and Bramble	No works required	1.5	
B	1	Elder	<i>Sambucus nigra</i>	Y													



## *Appendix One*



# *Amenity Tree Care Ltd*

---

*Consulting arboriculturalists*

## **Specification for surface treatment in vicinity of retained trees**

In areas where tree roots are likely to be found beneath existing bound surfaces, which must be broken out and then replaced, precautions must be taken to minimise disturbance. All operations for breakout of surfaces to be conducted on site arborist supervision, unless otherwise stated.

- Where possible, breaking-out shall be by hand, using pickaxes rather than pneumatic equipment.
- No machinery shall pass over the surface once broken-out.
- Where the roots are bound to risings, the root shall be pruned by use of a sharp saw or secateurs.
- The newly exposed ground surface shall immediately be covered by at least 35mm of sharp sand or sandy topsoil.
- Protective fencing shall be realigned to surround the newly exposed surface until such time as the ground is finally re-surfaced.
- The maximum excavation depth under a no dig policy is 50mm. Any excavations in excess of this depth will require specific on site advice prior to commencement.
- On site watching brief by arborist throughout

## *Appendix Two*

## Trees & Construction

1. Construction close to trees can be enormously damaging and detrimental to the tree's health, often leading to their death and eventual removal. Development of a site, including construction of access routes, driveways and parking areas can result in substantial root severance of trees. Traditional driveway construction (excavation and backfilling with a compatible load-bearing sub-base material) can seriously damage tree roots. Such damage occurs because of a lack of understanding that roots mainly grow outwards from a tree's trunk, near to the soil surface, rather than downwards.
2. The majority of tree roots are in the upper metre of soil and they may spread outwards, in any direction where soil conditions are suitable, to a distance of up to three times the tree's mature height.
3. Any disturbance of the ground within the root spread of a tree can damage its roots, which may severely injure the tree. If roots are damaged close to the trunk, the anchorage and stability of the tree can be adversely affected. If they are damaged anywhere along their length, all of the fine roots which they serve will be destroyed.
4. Damage to the fine roots by severance of a main root, or by compaction of alterations in levels, will prevent these fine roots from absorbing the water and nutrients which are essential for the well-being and growth of the tree. The tree may also be made unstable and pose a threat to the safety of people and property.
5. The effects of damage from different causes, for instance by successive excavations for different services, or by excavation in one part and compaction in another part of the system, will be cumulative.
6. If the root system is damaged, new roots must develop to sustain the tree. These may develop from the damaged root or by increased growth of other parts of the system. It may take years to replace all of the lost roots. Vigorous young trees are the most likely to be capable of rapid root regeneration, but mature trees find it very difficult to recover from major root damage. While roots may regenerate, they will not necessarily provide their original anchorage.
7. Trees with damage may not show any immediate symptoms. If the root system is capable of rapid regeneration, the tree may recover without any noticeable ill-effects, but usually the symptoms will take several years to develop. Such symptoms may range from only minor branch dieback to deterioration and ultimate death of the tree, dependent on the severity of damage and the ability of the roots to regenerate.

1. Most trees that have been growing undisturbed on a site for many years will have developed an extensive root system with the roots growing where the soil conditions are most favourable. There is a balance between the development of the crown (which demands water) and the roots (which supply it). Any sudden alteration in the soil conditions within the tree's rooting area (a circle of radius equal to the tree's height) will therefore upset this balance.
2. Root systems can be damaged by:

Repeated passage of machinery, which will squeeze the soil, closing up the pores causing compaction, especially in the upper levels, and so reducing the amount of oxygen available to roots and preventing them from growing through the soil. Surviving roots may then not be able to grow through the compacted soil. It is essential therefore that all but the immediate area of the development is protected from construction operations by fencing as recommended in BS5837.

Placing soil or other materials over the roots of a tree, which will impede air movement into and out of the soil and consequently reduce the availability of oxygen to the roots.

The severance of a root, for example by trenching, which will destroy all parts of the root beyond that point. Even roots less than 10mm in diameter may be serving the fine roots over a wide area. The larger the root served, the greater the impact on the tree.

Damage to the bark on the root. The bark protects the root from decay, and is also essential for further root growth. It is loosely attached and easily damaged. If damage to the bark extends around the whole circumference, the root beyond that point will be killed.

Alterations in soil level. Lowering the level will strip out the mass of roots near the surface. Raising the levels will have the same effect as soil compaction.



## *Appendix Three*

## Extract from National Joint Utilities Group Report

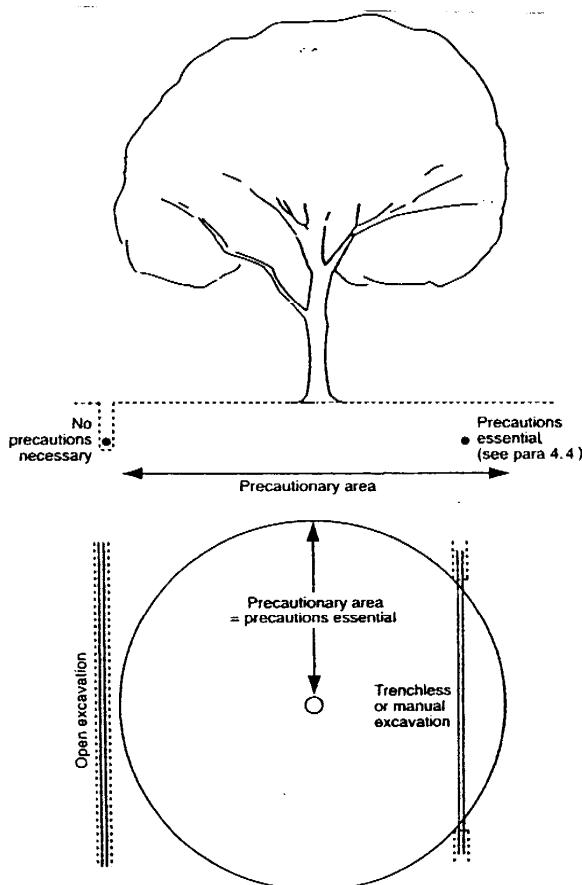
\*Guidelines for the planning, installation and maintenance of utility services in proximity to trees

### 4 HOW TO AVOID DAMAGE TO TREES

4.1 This section gives general guidance on methods of work to minimise damage to trees which should be adopted by utilities. The local authority (or for privately owned trees, the owner or his adviser), should be informed about planned work at an early stage prior to commencement.

4.2 Wherever trees are present, precautions should be taken to minimise damage to the root system. As the shape of the root system is unpredictable, there should be careful control and supervision of any excavation, particularly if this involves digging through the surface 600mm where the majority of roots develop.

4.3 The precautions advocated in this section are applicable to any excavations or other works occurring within a distance from the tree equal to 4 times the circumference of the trunk (circumference measured around the trunk at a height of 1.5m above ground level; distance measured from centre of trunk to nearest part of any excavation or other work) (see figure 3). This area around the trunk is referred to as "the precautionary area" hereafter.



## Figure 3

{Precautionary area (=4 x trunk circumference)}

4.4 Although, ideally, services should be diverted or re-aligned outside the precautionary area, it is recognised this will not often be practicable. Where works are required or the laying or maintenance of any service within the precautionary area, there are various techniques to minimise the damage. The appropriate method of laying will depend on the circumstances, such as:

- the scope of the works (one-off repair, or part of an extensive operation)
- degree of urgency (for restoration of supplies)
- knowledge of location of other services
- soil conditions
- amenity value of tree
- cost

Acceptable techniques in order of preference are:-

- |                                 |                   |
|---------------------------------|-------------------|
| 1) Trenchless                   | - see section 4.5 |
| 2) Broken trench - hand-dug     | - see section 4.6 |
| 3) Continuous trench - hand dug | - see section 4.7 |

Excavation of open trenches by machine is totally unacceptable within the precautionary area

### **4.5 Trenchless**

4.5.1 Wherever possible trenchless techniques should be used. The pit excavations for starting and receiving the machinery should be located outside the precautionary area.

4.5.2 In order to avoid damage to roots by the mole, it is recommended that the depth of run should be below 600mm. Techniques involving external lubrication of the mole with materials other than water (e.g. oil, bentonite, etc.) should be avoided, unless precautions are taken to ensure that there is no contamination of the soil within 600mm of the surface within the precautionary area.

### **4.6 Broken Trench**

4.6.1 This technique combines hand dug trench sections with trenchless techniques. If excavation is unavoidable, it should be limited to practical access and installation around/below the roots. The trench is excavated by hand with precautions taken as for continuous trench below. Open sections of the trench should only be long enough to allow access for linking to the next section. The length of sections will be determined by local conditions, especially soil texture and cohesiveness, as well as the practical needs for access. In all cases the open sections should be kept as short as possible.

4.9 Additional precautions near trees

- 4.9.1 Repeated movement of heavy mechanical plant (excavators etc.) should avoid the precautionary area except on existing hard surfaces, in order to prevent unnecessary compaction of the soil. This is particularly important on soils with a high proportion of clay. Spoil or building material must not be stored in the precautionary area.
- 4.9.2 Care should be taken to avoid damage to the trunk and branches from machinery. A tree must not be used as an end-stop for leaning paving slabs against after lifting, nor for security chaining of machinery. If the trunk or branches of a tree are damaged in any way, advice should be sought from the local authority arboriculturist. Any remedial surgery which is necessary should be carried out in accordance the British Standard 3998:1989, 'Recommendations for Tree Work'.

4.10 Special considerations when planning services

- 4.10.1 The potential for future conflict with trees can be reduced at the stage of initial planning approval by the appropriate alignment of services and the provisions for future tree and shrub planting. Appropriate and separate space should be provided for each. Local authorities should liaise with developers.
- 4.10.2 If planning requirements and site constraints dictate that trees (existing or to be planted) and services share the same area, consideration should be given to increasing the depth of services, if possible to a minimum of 600mm, and to laying the service in ducts which will resist root penetration but allow replacements to be laid without extensive excavation. As this may incur additional costs, allowance must be made for these costs and the responsibility for meeting them at the planning stage.
- 4.10.3 When laying new services or replacements, to avoid the risk of future direct damage, allowance should be made for future root growth.
- 4.10.4 Services laid in clay or peat should be constructed to tolerate movements associated with swelling or shrinking of the subsoil caused by root activity. Special precautions for differential movement should be incorporated where services join rigid structures founded at a different depth to the service.

## *Appendix Four*

## SITE MANAGER!

### TREES – DO'S AND DON'T'S

How to assist in ensuring your site does not face potential prosecution under the Town and Country Planning Act.

#### DO'S

- Ensure that protective fencing is installed at the base of any vegetation to be retained prior to commencement of any works in the vicinity of retained vegetation.
- Do check that any remedial works applying to the removal or pruning of vegetation are fully authorised by the Local Planning Authority.
- Do check whether your site has been earmarked for on site supervision by a tree consultant, make yourself aware of the locations and make contact with the nominated tree consultant a minimum 2 weeks before work commencement to attend site and supervise the works.
- Assume when you arrive on site that fencing at the base of trees means you can not remove it without consent from Head Office.
- Do check your trees following high wind for any broken branches etc, record observations and report to either head office or a tree consultant if any areas of concern arise.

#### DON'T'S

- Do not remove any protective fencing for any reason. Should you need to enter a protected area to implement works then telephone head office planning department or the nominated tree consultant. After which you will be given a day on which the removal of fencing can be supervised by a tree consultant. Under no circumstances remove this fencing without approval.
- Do not remove soil from the base of tree stems, if in doubt, call head office or the nominated tree consultant
- Do not remove trees mechanically!

## *Appendix Five*

## ***REPORT GLOSSARY***

### **TREE WORK SPECIFICATIONS – TO BE CONDUCTED IN ACCORDANCE WITH BS 3998**

#### **CROWN REDUCTION**

Involves only the outer part of crown ie the foliage bearing branches only and therefore a modest reduction in overall height and spread is achieved. The larger branches are left intact. A reduction may be expressed in terms of the % or meters of length to be removed. All pruning works should provide a finished cut from a lateral to produce a natural branch taper. It is not good practice to repeat a reduction on a mature tree for up to 2 – 3 years as photosynthetic capabilities are significantly altered in the first year after works.

A reduction is prescribed for safety and light filtration purposes where a given tree is to be retained. Removal of foliage bearing branches reduces the likelihood of windblow or individual branch failure as the tree has less resistance to loading pressures such as the wind and is often enough to mitigate most reasonable hazards(D.Lonsdale 99 Tree Hazard Evaluation H.M.S.O.Press)..

#### **NON-INVASIVE CABLE INSTALLATION**

Occasionally hazards occur that require remedial works such as cable installation. Such hazards include forks that contain bark within the natural join and are therefore viewed as structural weak points. If the tree is to be retained a cable can be installed above the weak fork for supplementary support.

Large limbs can also require artificial support with cabling systems that are non – invasive to the tree i.e. the bark need not be pierced for installation.

It is standard practice to reduce the weight of the crown or limb if a need for cabling has been identified on the basis of safety and stabilisation.

#### **CROWN THIN**

A Crown Thin will not reduce the overall spread of the crown in the same way as a reduction. This operation concentrates on the removal of deadwood, branches that are crossing one another and diseased branches and should be viewed as corrective formative pruning.

#### **POLLARDING**

On mature trees this operation should be completed over a number of years by progressive removal of large limbs/main stem allowing for dormant buds under the bark to burst and provide foliage for photosynthesis. Pollarding can significantly increase the longevity of a given tree. Pollarding can induce individual branch drop at the pollard point. Pollarding is unsuitable on certain species of tree cover.

Topping is not a recognised pruning method and should be avoided at all costs.

Ideally pollarding should be done when the tree is young and was traditionally used as a method to produce firewood on grazed sites.

## ***REPORT GLOSSARY***

### **CROWN LIFT**

Removal of lower branches to a specified height, of either whole or part of the branch back to the branch collar. There is no legally required limit at roadside but individual attention should be paid to each case.

### **FORMATIVE PRUNING**

The removal of dead, damaged, weak, twin leaders or crossing branches to ensure the branch structure is defect free .

### **REDUCTION OF END LOADING**

Applying to specific large lateral branches that are developing mechanical loadings and also the potential to fail under their own weight.

### **LIFE EXPECTANCY**

An indicative assessment, assuming standard weather conditions, no physiological change, and re-inspections as and where stated

### **INCLUDED BARK**

Areas of poor fork formation within the branching structure. Most usually a lack of normal woody tissue within a fork junction which can compromise structural stability within the tree as a whole. Most usually a crown thin can alleviate loading from outside agents such as wind on the identified weak point, some cases require removal of the tree on a safety basis.

### **MECHANICAL DAMAGE**

Mechanical damage most usually takes the form of damage caused by outside agents such as man or machine. As a result of mechanical damage water and mineral transportation can be disrupted, in some cases this can lead to physiological decline or structural instability.

### **WOODLAND STRUCTURE**

Assessment of vegetation levels with Shrub, Intermediate and Canopy layers.

### **FORK INCLUSION**

Area of included bark within fork junction/s

### **HANGER**

A branch that has completely broken off and is being supported by the crown.

### **OCCLUDED**

A wound that has become completely sealed by callus tissue

### **RIBS**

A protusion of reactive wood growth that has formed over a crack or other anomaly

## ***REPORT GLOSSARY***

### **A.I.S.**

Arboricultural Implication Study (A.I.S.) – required to examine impact of development proposals on tree cover in order to formulate tree protection measures

### **V.T.A.**

Visual Tree Assessment – Examination of visual tree defects

### **DFG**

Disturbance free ground

### **SPOROPHORE**

Fruiting bodies of fungus such as Toadstool or Bracket fungi.

### ***RESONANCE TEST***

Use of hammer testing as a means to measure the resonance of timber against the normally anticipated resonance level in cases of suspected decay.

### **HUNG UP**

A tree that is resting on an adjacent tree or structure.

### **PLANTERS**

Timber edged structures at the base of trees that contain wood or bark chip.

### **PF**

Protective fencing

### **EPICORMIC GROWTH**

Shoots developing at the base of main stems. Often require removal to allow full stem VTA.

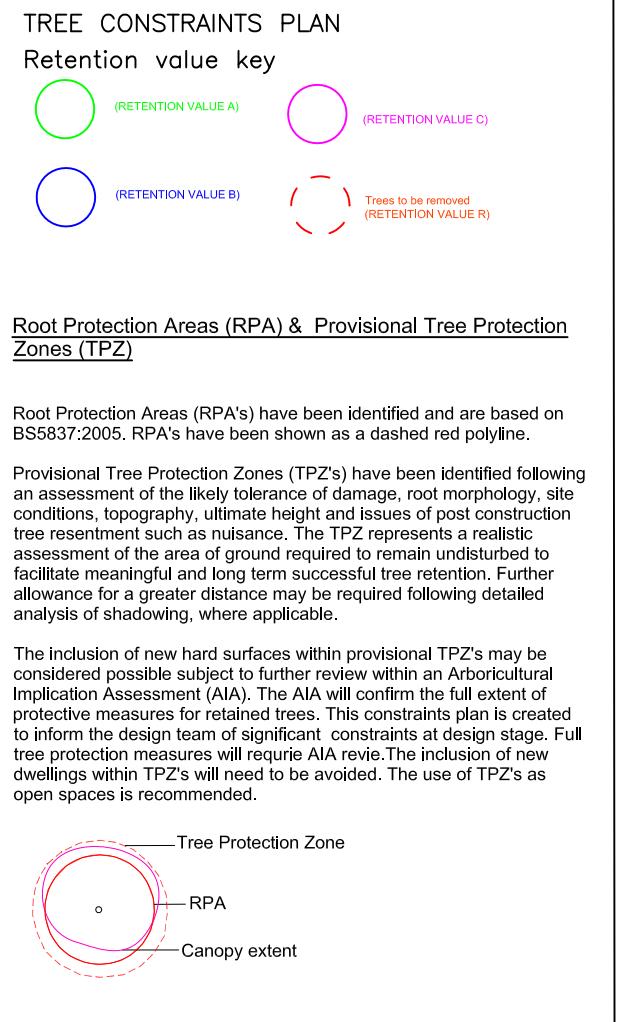
### **CROWN CLEAN**

Cleaning out is defined as the removal of dead, dying or diseased branchwood, broken branches or stubs left from previous tree surgery operations together with all unwanted objects, which may include fungal fruit bodies, ivy and/or other climbing plants, nails, redundant cable bracing, rope swings, tree houses and wind-blown rubbish from the tree, and any such debris from any cavities within the tree.

## *Appendix Six*

### ATC TREE CONSTRAINTS PLAN Site tree / group retention value plans and preliminary RPA





**AMENITY  
TREE CARE**  
Ltd

Client:  
**Entec**

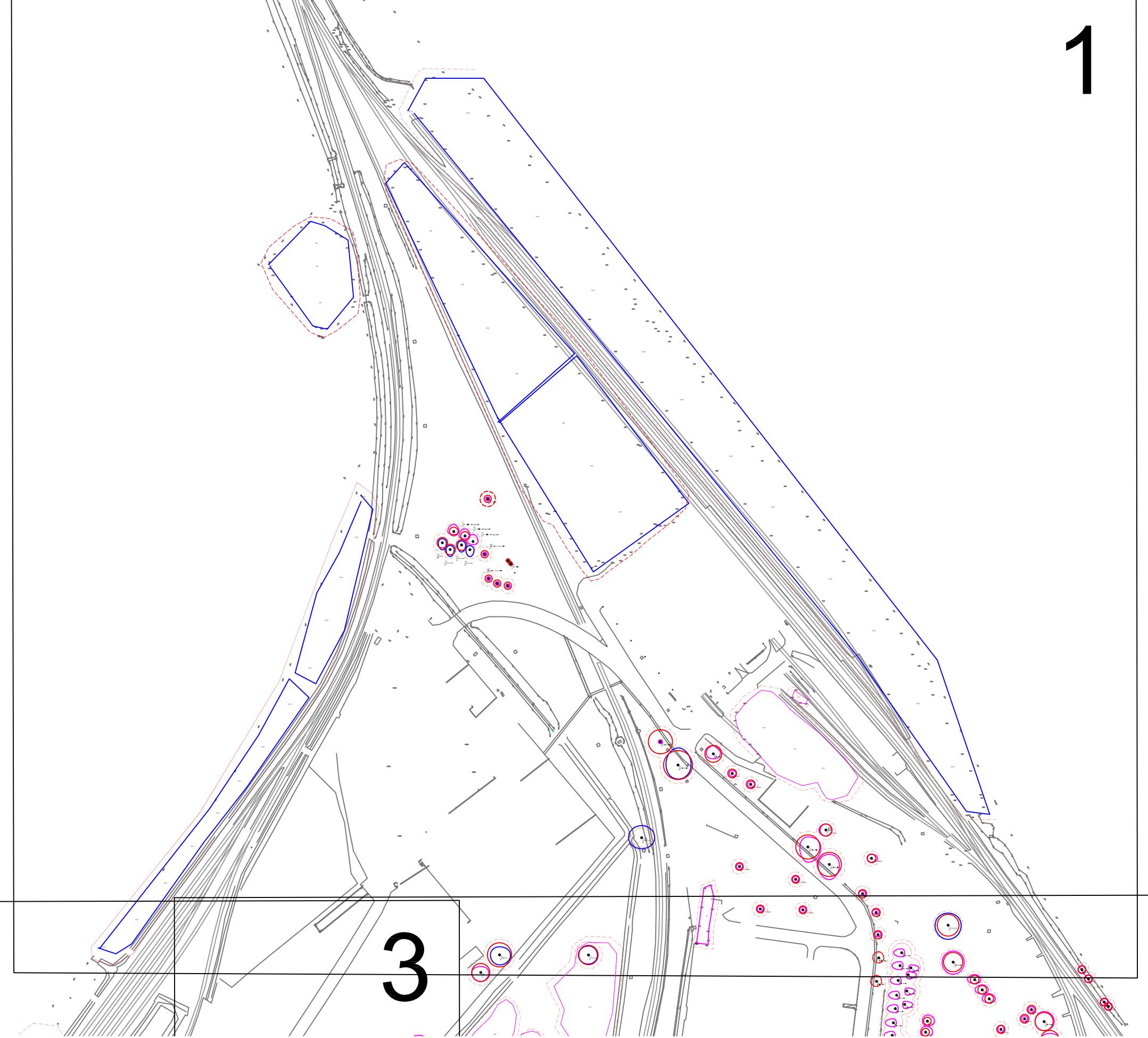
Project:  
**MOD Bicester Site C**

Detail:  
**TREE CONSTRAINTS PLAN - Overview**

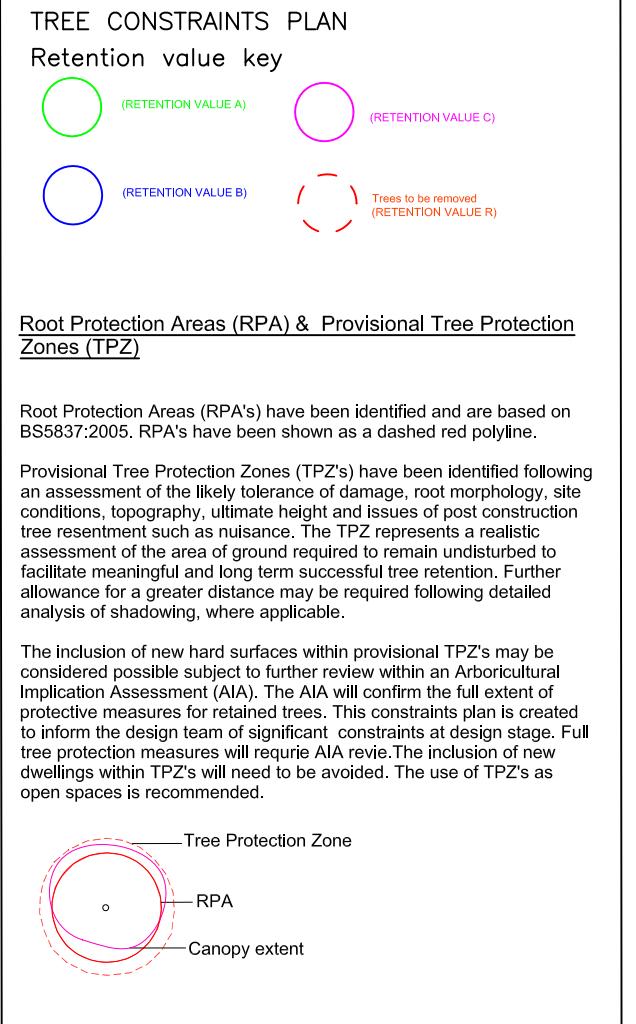
Drawn By: **SB** Date: **1/7000@A3** Scale:

Drg No: **TR-01** Revision:

1



3



AMENITY  
TREE CARE  
Ltd

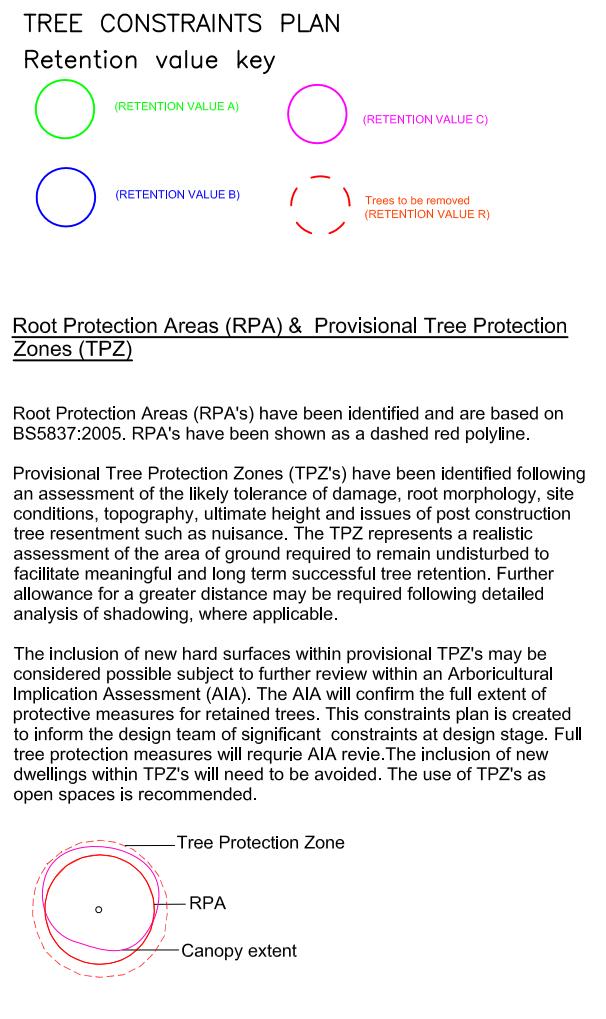
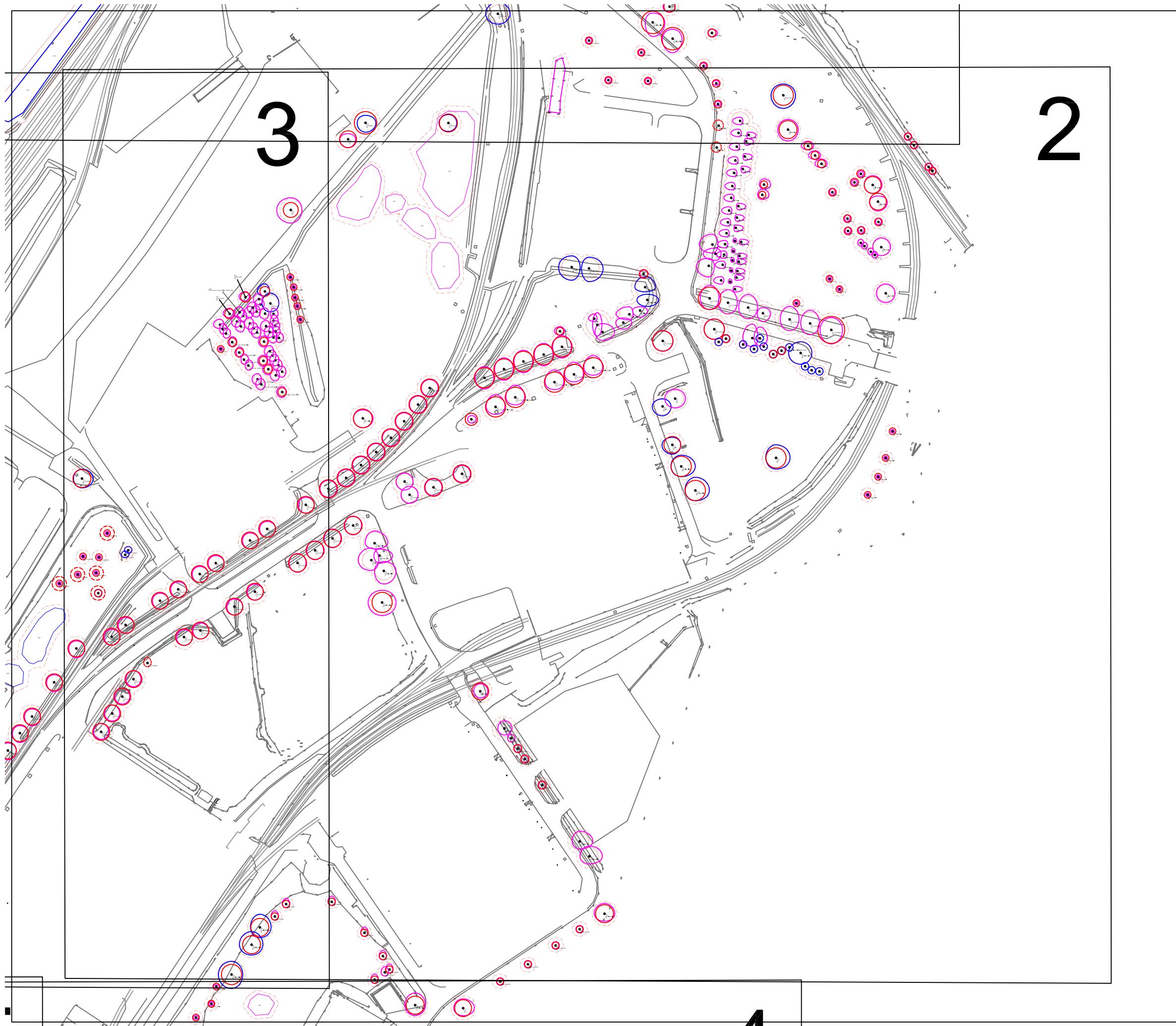
Client:  
**Entec**

Project:  
**MOD Bicester Site C**

Detail:  
**TREE CONSTRAINTS PLAN - Overview**

Drawn By: **SB** Date:  Scale: **1/2000@A3**

Drg No: **TR-01** Revision:



**AMENITY  
TREE CARE**  
Ltd

Client:  
**Entec**

---

Project:  
**MOD Bicester Site C**

---

Detail:  
**TREE CONSTRAINTS PLAN - Overview**

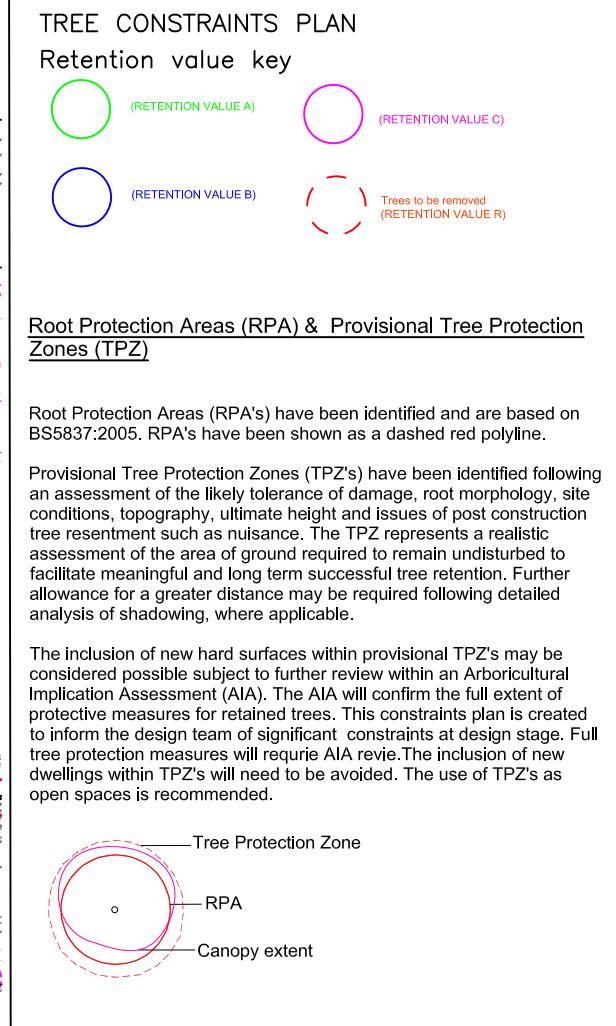
---

Drawn By: **SB** Date: **1/2000@A3** Scale:

---

Drg No: **TR-01** Revision:

# 3



**AMENITY  
TREE CARE**  
Ltd

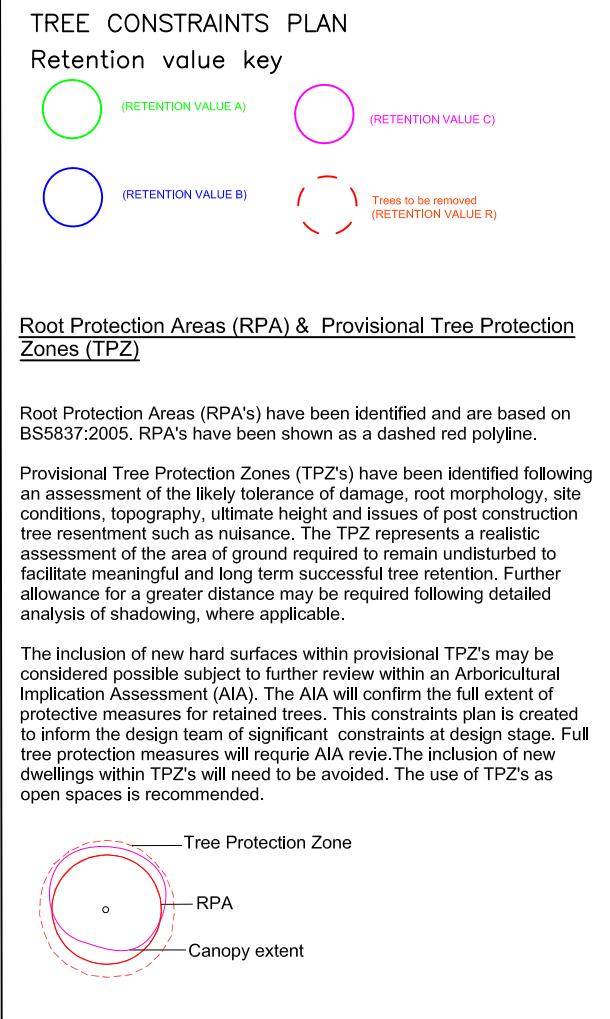
Client:  
**Entec**

Project:  
**MOD Bicester Site C**

Detail:  
**TREE CONSTRAINTS PLAN - Overview**

Drawn By: **SB** Date: **1/2000@A3** Scale:

Drg No: **TR-01** Revision:



**AMENITY  
TREE CARE**  
Ltd

Client:  
**Entec**

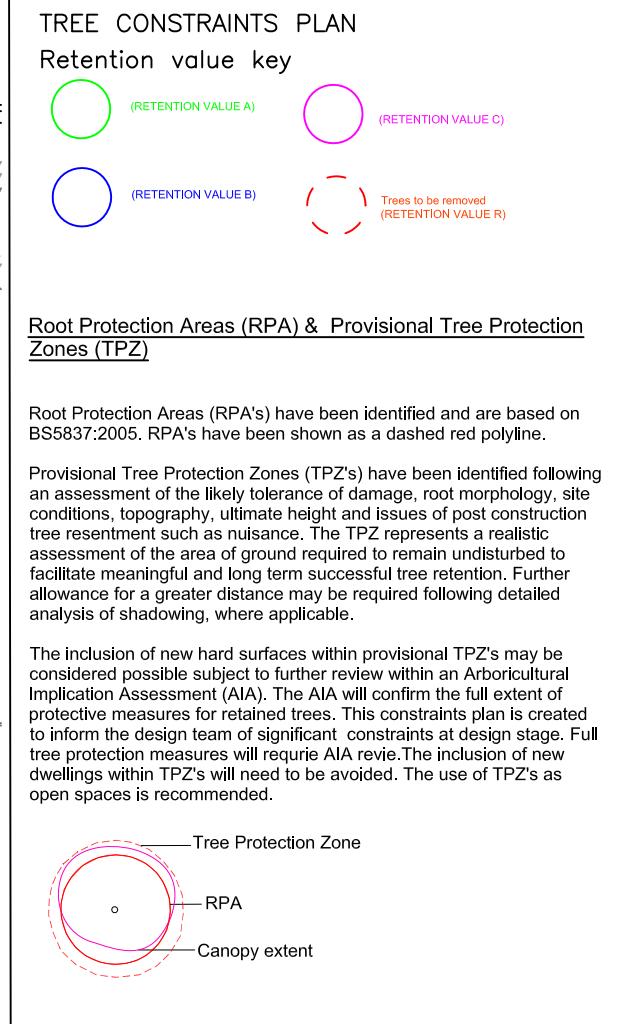
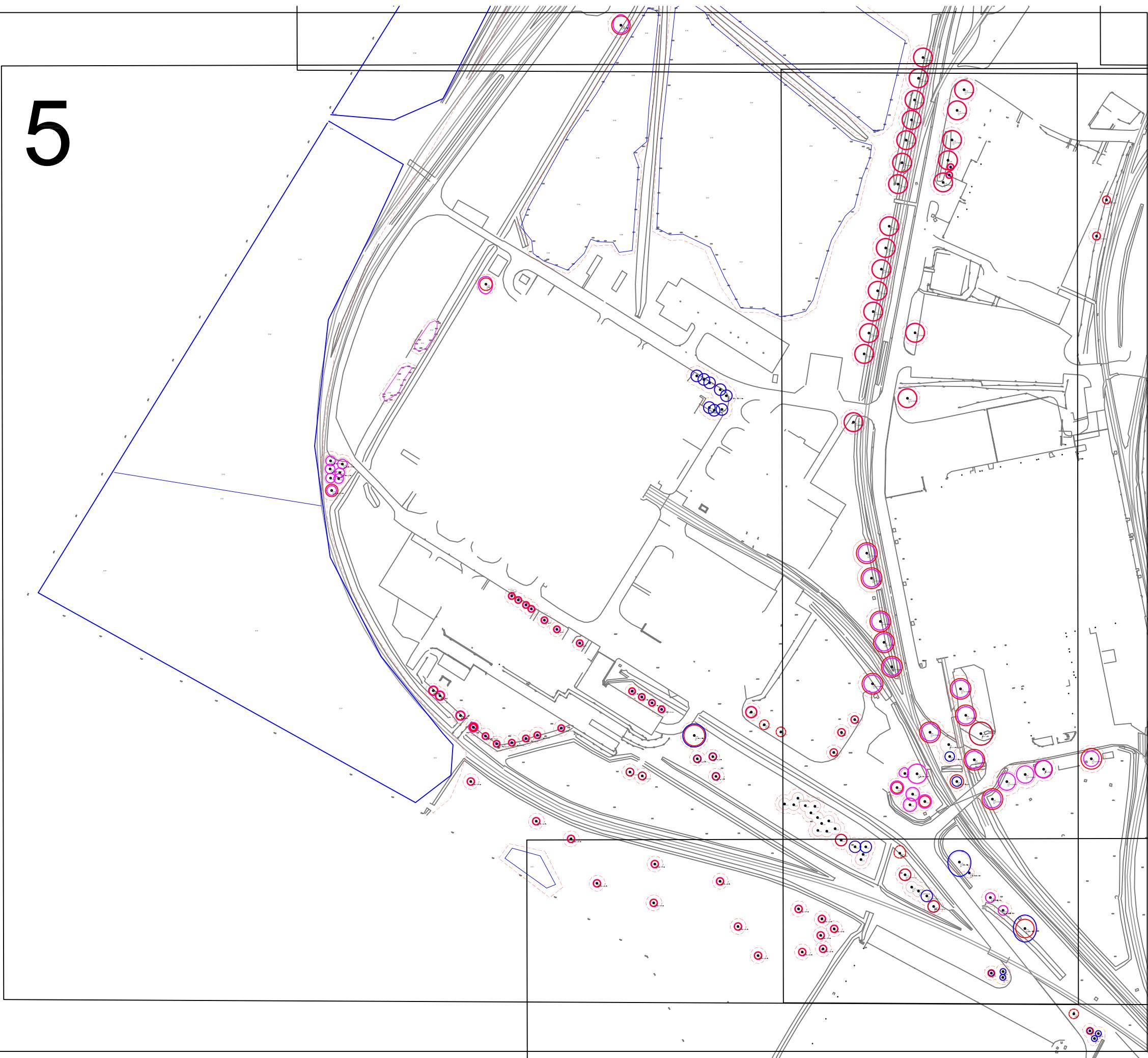
Project:  
**MOD Bicester Site C**

Detail:  
**TREE CONSTRAINTS PLAN - Overview**

Drawn By: **SB** Date: **1/2000@A3** Scale:

Drg No: **TR-01** Revision:

5



AMENITY  
TREE CARE  
Ltd

Client:  
**Entec**

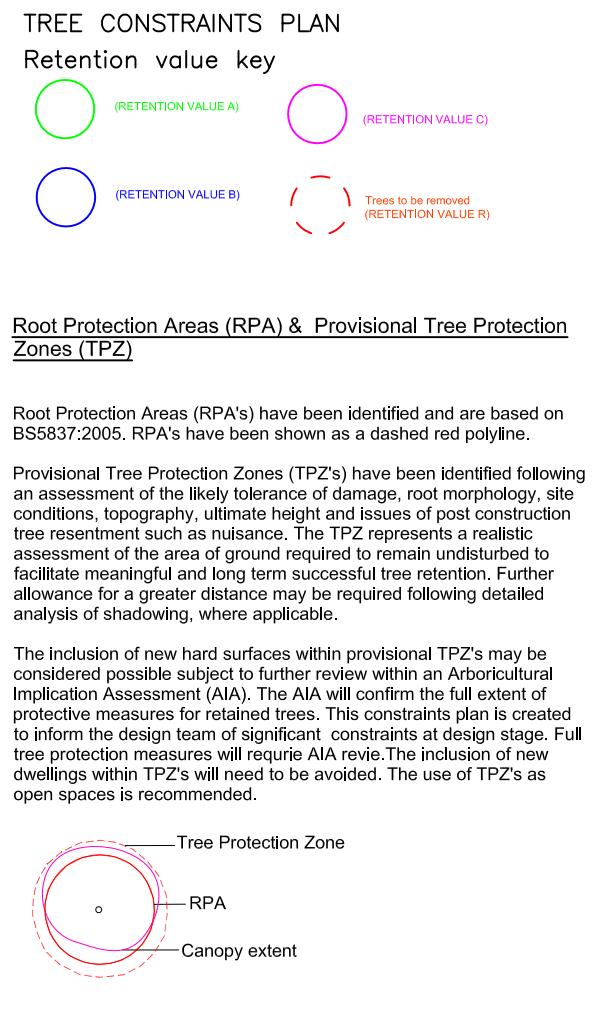
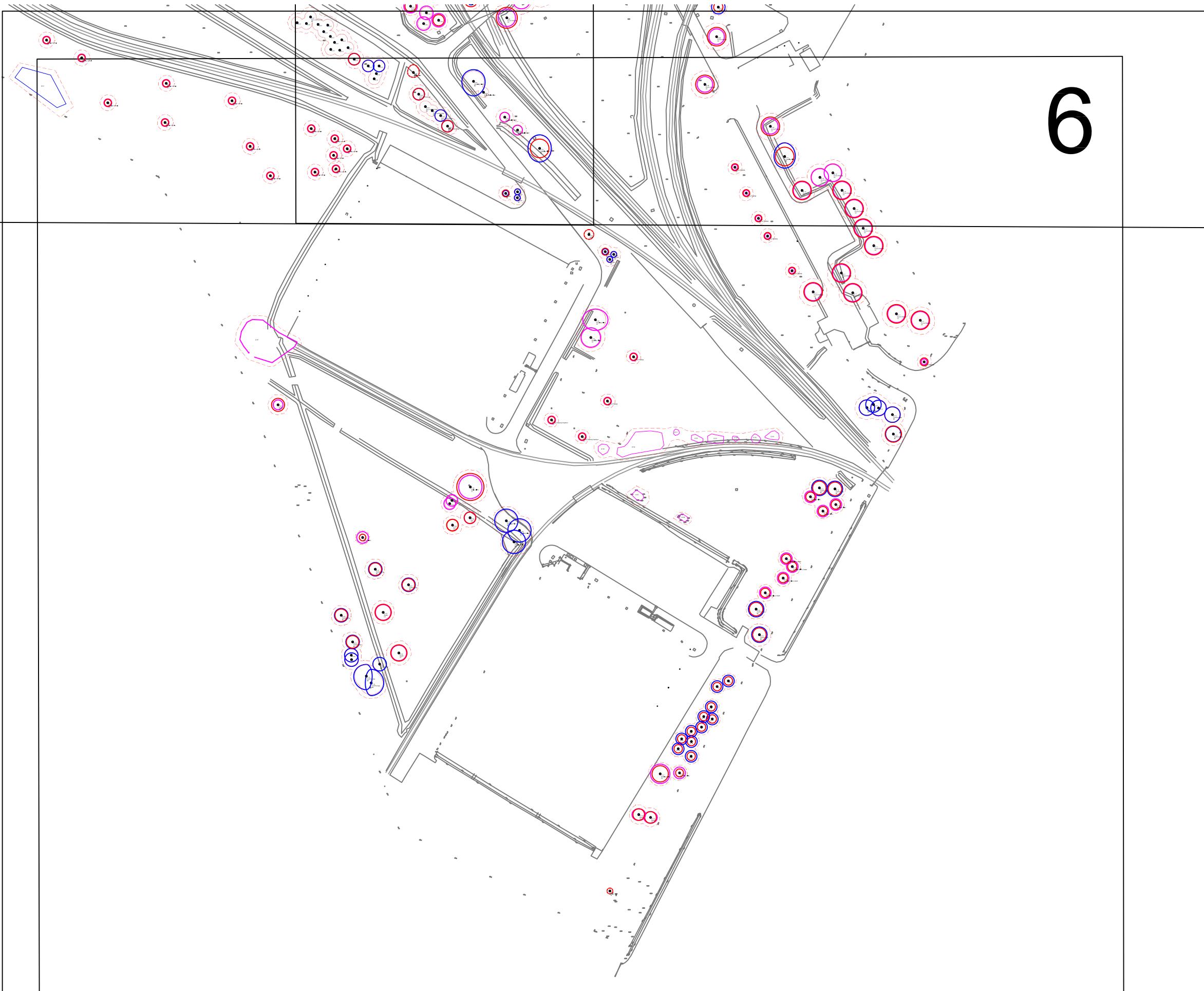
Project:  
**MOD Bicester Site C**

Detail:  
**TREE CONSTRAINTS PLAN - Overview**

Drawn By: **SB** Date: **1/2000@A3** Scale:

Drg No: **TR-01** Revision:

6



AMENITY  
TREE CARE  
Ltd

Client:  
Entec

Project:  
MOD Bicester Site C

Detail:  
**TREE CONSTRAINTS PLAN - Overview**

Drawn By: Date: Scale:  
SB 1/2000@A3

Drg No: Revision:  
TR-01