

RESERVED MATTERS APPLICATION FOR THE ERECTION OF 86 DWELLINGS WITH ASSOCIATED CAR PARKING, INFRASTRUCTURE, ASSOCIATED WORKS AND PUBLIC OPEN SPACE

**DORCHESTER PHASES 4 & 5B, HEYFORD PARK,
CAMP ROAD, UPPER HEYFORD**

ARBORICULTURAL IMPACT ASSESSMENT AND PROTECTION PLAN

ON BEHALF OF THE DORCHESTER GROUP

**BS5837:2012 'TREES IN RELATION TO DESIGN, DEMOLITION AND
CONSTRUCTION – RECOMMENDATIONS'**

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REVISIONS:

Date	Rev	Description	Initials
24.09.15	A	First Draft	MGP

1. INTRODUCTION

- 1.1 This Arboricultural Impact Assessment (AIA) Report has been prepared by Pegasus Group on behalf of Dorchester Group (“the Applicant”).
- 1.2 The AIA is in support of a Reserved Matters application for the erection of 86 dwellings at Dorchester Phases 4 & 5B of the Heyford Park development (“the Application Site”) on land at the Former RAF Upper Heyford airbase, Upper Heyford, Oxfordshire.
- 1.3 The Reserved Matters submission is submitted pursuant to outline planning permission ref. 10/01642/OUT. The application represents the provision of 86 dwellings with associated car parking, infrastructure, associated works and public open space. The proposed dwellings form part of the 1,075 dwellings approved (including 762 new dwellings) at Heyford Park.

APPENDIX 1 – SITE LOCATION PLAN

- 1.4 The scope of the instruction was to assess the impact of Phase 4 and 5B proposals on the site’s arboricultural resource and to produce the following:
 - Arboricultural Impact Assessment;
 - Tree Retention/Loss and Protection Plan; and
 - Heads of terms for an Arboricultural Method Statement.

2. REPORT LIMITATIONS

- 2.1 Trees are living organisms as well as self-supporting dynamic structures. Their physiological and structural condition can change rapidly in response to a wide range of biotic/abiotic factors. They have the potential to fail structurally, without prior manifestation of any reasonably observable symptoms. It is therefore not possible to categorically state that any tree is 'safe'.
- 2.2 This report is prepared for planning application purposes only and does not evaluate the degree of risk posed by trees.
- 2.3 It is beyond the scope of this report to comment in relation to structural damage – direct or indirect, existing or potential – that might be associated with vegetation growth, or vegetation-related soil subsidence or heave.
- 2.4 Any management recommendations set out within this report are of an advisory and preliminary nature only and relate to trees within the context of current site use. Any physical alterations to site conditions subsequent to the date of the site survey will have the potential to change/invalidate the findings and recommendations of this report.
- 2.5 The findings and recommendations of this report are limited to a period of 24 months from the date of this report.

3. DOCUMENTS AND INFORMATION PROVIDED

3.1 For the purposes of carrying out the assessment, Pegasus Group were provided with the following information:

Liz Lake Associates, Detailed Planting Proposals, Drawing 1619 A3 01 C,
20.08.15

Focus, Planning Layout, drawing 0521-PH4-5B-102, May 2015

4. OTHER CONSIDERATIONS

Statutory tree protection

- 4.1 Cherwell District Council have confirmed that the site is located within the Upper Heyford Conservation Area but that none of the trees on or adjacent to the site are currently protected by Tree Preservation Order (TPO).
- 4.2 It must therefore be noted that the trees >75mm DBH that are located within the Conservation Area are subject to statutory protection.
- 4.3 Notwithstanding specific exemptions and in general terms, a Conservation Area prevents the cutting down, uprooting, topping, lopping, wilful damage or wilful destruction of trees or woodlands without the prior consent of the local planning authority.
- 4.4 Penalties for contravention of a Conservation Area tend to reflect the extent of damage caused but can, in the event of a tree being destroyed, result in a fine of **up to £25,000 if convicted in a Magistrates' Court, or an unlimited fine** if the matter is determined by the Crown Court.
- 4.5 On many sites (excluding specific exemptions) there is also a statutory restriction relating to tree felling that relates to quantities of timber that can be removed within set time periods. In basic terms, it is an offence to remove more than 5 cubic metres of timber in any one calendar quarter without having first obtained a felling licence from the Forestry Commission.
- 4.6 Any proposed tree works that are planned to be carried out on site must be carried out in accordance with the statutory controls outlined.

Statutory Wildlife Protection

- 4.7 Although preliminary visual checks from ground level of likely wildlife habitats are made at the time of surveying, detailed ecological assessments of wildlife habitats are not made by the arboriculturist and fall outside the remit of this report.
- 4.8 Trees which contain holes, splits, cracks and cavities could potentially provide a habitat for bats in addition to birds and small mammals. It is recommended that in line with any accompanying specialist advice, any tree works should only be carried out following a detailed climbing inspection to the tree to ensure that protected species or their nests/roosts are not disturbed. If any are found, the

project manager, site owner or consulting arboriculturist should be informed and appropriate action taken as recommended by a Statutory Nature Conservation organisation such as Natural England.

- 4.9 It is advised that tree/hedgerow works are carried out with the understanding that birds will generally nest in trees, hedges and shrubs between March and August. Ideally, operations should be avoided during this period. Any necessary work should only be carried out following a preliminary check of the vegetation.
- 4.10 For information, the Wildlife and Countryside Act 1981 (as amended), The Countryside and Rights of Way Act 2000 (as amended) and the Conservation of Habitat and Species Regulations 2010, form the basis of the statutory legislation for flora and fauna in Britain.

5. DESCRIPTION OF SITE AND TREES

- 5.1 The site is located to the south of Camp Road, at the south-eastern corner of the Former RAF Upper Heyford, Oxfordshire.
- Post Code OX25 5TY
 - SP 51438 25443
- 5.2 The site area at the time of survey consisted of numerous semi-derelict buildings with associated roadways and areas of hardstanding of the Former RAF Base. Currently much of the former buildings and areas of hardstanding have been demolished in accordance with due planning process.
- 5.3 The distribution of trees and groups within the site follow the original footprint of the RAF Base prior to demolition works. Typical trees and groups occupy former road side verges and parcels of greenspace in and around former buildings.
- 5.4 Species within the site are largely comprised of mature cypress, maple and lime species with some rowan, whitebeam and hornbeam within.

6. DESCRIPTION OF PROPOSED DEVELOPMENT

Background and Pre-application discussions

- 6.1 The submitted layout reflects collaboration and pre-application discussion with Cherwell District Council. This process of design review has led to the identification and retention of the most significant trees within the site and incorporation of their eventual mature forms into greenspace within the design.
- 6.2 Similarly pre-application discussions with the Local Authority arboriculturist agreed to the removal of identified trees provided that new tree planting was proposed in commensurate areas of greenspace. It was agreed that with the loss of trees within the site, there was an opportunity to increase the overall number and diversity of tree species with new tree planting.
- 6.3 It was agreed that new tree planting would support the landscape setting of development through planting tree species that could become future skyline features in addition to providing ecological benefits through planting better habitat species such as berry and blossom bearing trees. It was also agreed that trees along the southern boundary could be removed and replaced with extensive new tree planting that included wildlife enhancing and woodland edge species as well as intermittent larger tree species to form future skyline features.

Proposals

- 6.4 The proposed development comprises the erection of 86 dwellings with associated car parking, infrastructure, associated works and public open space.
- 6.5 Proposals are shown on the Tree Retention/Removal and Protection Plan (Appendix 4).

7. ARBORICULTURAL IMPACT ASSESSMENT (AIA)

7.1 With reference to BS5837:2012 '*Trees in relation to design, demolition and construction*', this preliminary AIA evaluates the potential direct and indirect effects of the proposed parameters plan **on the site's arboricultural resource**.

7.2 The preliminary AIA considers the effects of potential tree loss required to implement proposals as well as any potentially damaging activities proposed in the vicinity of retained trees. BS5837:2012 suggests that such activities might include:

- Removal of existing structures and hard surfacing;
- Installation of new hard surfacing;
- Installation of services;
- Location and dimensions of all proposed excavations and changes in ground level (including those that might arise from the implementation of recommended mitigation measures); and
- **The 'buildability' of the scheme in terms of access, adequate working space, provision for storage of materials including topsoil.**

7.3 With reference to BS5837:2012, the preliminary AIA includes the following information:

- Tree Retention/Loss and Protection Plan (Appendix 4); and
- a description of the potential impact of proposals (Appendix 3 and 7.6-7.22 below).

7.4 An arboricultural impacts assessment schedule is included at Appendix 3. This provides a tree-by-tree assessment of the potential impacts of the proposals. It also evaluates the degree of impact and sets out mitigation measures as may be necessary. This overall assessment is expanded on below:

7.5 The table below summarises the tree retention and loss of individual trees across the site:

TREES/Groups	Total	Number loss	Number retained
Category A	1	0	1
Category B	21	9	12
Category C	11	10	1
Total	33	19	14

7.6 The above table shows that of the 33 trees considered relevant to the site area, proposals will result in the loss of 19 surveyed items. It should be noted that one surveyed item (G294) is largely located outside of the development boundary, with only a small portion being within the application site. Proposals will require the partial removal of G294 in respect of portion of the group located within the site. The majority of G294 is retained as part of Phase 3 proposals.

7.7 When analysing retention/loss figures it is necessary to consider the existing site context of the arboricultural resource versus the potential future site context. The Phase 4 and 5B parcel is located in an area of the RAF Upper Heyford Base that comprised accommodation buildings with extensive areas for vehicular parking. Surveyed items comprise of trees growing and being distributed in response to the layout of the former land use. With a change to a residential land use, the long term suitability of existing trees and their potential contribution in a new land use context must be considered.

7.8 It is considered that proposals have responded to identified arboricultural constraints and will retain those surveyed items that were agreed to be of a sufficient quality and vigour that have a realistic chance of contributing to the completed residential development. It is considered unfeasible and unrealistic to be able to retain any more survey items due to their overall quality, their distribution across the site and nature of the proposed development.

- 7.9 It is considered that a more flexible approach to the site's arboricultural resource would be to provide for new tree planting as opposed to seeking the retention of a greater proportion of existing items, the majority of which are of low quality (Category C). This approach has the potential to deliver a greater diversity and increase in number of tree species in locations that would be more suitable and appropriate in the context of a residential development.
- 7.10 The planning layout provides for extensive new tree planting, with trees being integrated into the streetscape and within open space, striking a harmonious balance between built development and green infrastructure needs. By incorporating the principles of green infrastructure new tree planting has the potential to soften the urban fabric of built form and associated open space, providing lasting landscape, ecological and arboricultural benefits for the life of the development.
- 7.11 When factoring in tree planting proposals as part of the landscaping scheme the overall arboricultural impact significant reduces from major/moderate to moderate/minor in the short term. However, over the life of the development new tree planting has the potential to provide significant long term multifunctional benefits beyond the capacity that the existing arboricultural resource could provide.
- 7.12 It should also be noted that development across RAF Upper Heyford is being carried out in a phased approach. Therefore retention/loss also needs to be considered in the wider site context. Although within this phase of the development a high proportion of trees will not be retained, there is the potential to retain higher quality trees within land parcels that form part of other phases of development.

Tree works

In order to enable swale installation, a lateral reduction back to the boundary line will be required in relation to T428.

Removal of hard surfacing and existing structures

- 7.13 A small area of road is to be resurfaced is within the default circular RPA of T1291. It is considered that the presence of the existing hardstanding would have limited root growth in this area and that resurfacing works are unlikely to have a significant impact to T1291. It is recommended that removal of

hardstanding within the default circular is undertaken using hand tools only, working backwards away from the tree. Should roots be discovered advice should be sought from the project arboriculturist. No excavations beyond the depth of the existing hard sanding should be undertaken.

Installation of hard surfacing

- 7.14 Soil compaction reduces soil aeration and penetrability thereby impeding tree root growth and respiration capacity. The consequences of soil compaction often manifest themselves in trees as symptoms of reduced physiological function; dieback at branch and root extremities and thinned density of foliage. In turn, the effects of these symptoms can lead to overall decline and/or reduced resistance to pests and diseases.
- 7.15 Proposals have responded positively to the constraints posed by retained trees which has resulted in retained items being incorporated into proposals with new hardstanding being located away from RPAs.
- 7.16 It is noted that hardstanding in the form of tarmac footpaths do encroach into the eastern most default circular RPAs of T431 and T433. However, given the very limited scale of encroachment and the current vigour of these trees it is considered that footpath installation would not be of significant consequence.

Installation of services.

- 7.17 No services are proposed within the RPA of any retained items.

Excavations

- 7.18 Although excavations will be required for the construction of roads, buildings and attenuation ponds proposals have been designed to avoid such ground works within the root protection areas of retained trees.
- 7.19 It is noted that the alignment of a proposed swale runs through the outer northern part of the RPA of T428. It is recommended that swale excavations within this area are undertaken under arboricultural supervision.

Overbearing effects

- 7.20 The planning layout positions new development with retained trees located within areas of public open space. It is considered that this will avoid the potential for overbearing effects and future pressures to remove trees.

Levels

- 7.21 It is recommended that existing ground profiles are retained within the RPAs of trees on site. Where re-profiling within an RPA is absolutely necessary the proposed work will need to be fully accessed by an Arboriculturist to identify any impacts to retained trees. Then, if appropriate, works will need to be undertaken in accordance with a detailed arboricultural method statement.

'Buildability'

- 7.22 It is considered that there is sufficient space within the site to accommodate the storage of materials, site huts and construction equipment/vehicles etc. away from retained features.

8. TREE RETENTION/LOSS AND PROTECTION PLAN

- 8.1 A Tree Retention/Removal and Protection Plan incorporating tree retentions and removals data is attached.

APPENDIX 4 – TREE RETENTION/LOSS AND PROTECTION PLAN

- 8.2 An assessment of the site area indicates that tree protection barriers could be employed as the main method of tree protection for this site. This demonstrates the feasibility of protecting retained trees during construction.
- 8.3 Tree protection fencing is to remain in place during construction. Protection fencing in relation to T431 and T433 can be moved to a secondary location to facilitate footpath construction, as shown on the Tree Retention/Removal and Protection Plan.

9. HEADS OF TERMS FOR AN ARBORICULTURAL METHOD STATEMENT

- 9.1 BS5837:2012 (Figure 1) recommends that detailed/technical design of tree protection and arboricultural methodologies should be resolved and finalised following on from the approval of the feasibility of a scheme by the relevant regulatory body.
- 9.2 Annex B and Table B.1 of BS5837:2012, an informative, advises that arboricultural method statement heads of terms are a sufficient level of information in order to deliver tree-related information into the planning system. The table also advises that a detailed arboricultural method statement might reasonably be required as a **'reserved matter' or planning condition.**
- 9.3 In relation to the above site, it is anticipated that arboricultural working methods are likely to be quite straightforward. A draft, 'heads of terms' is set out below:
- Project arboriculturist – schedule of monitoring and supervision;
 - pre commencement site meeting;
 - tree removals and facilitation pruning (as necessary);
 - erection of tree protection barriers;
 - main construction phase;
 - removal of tree protection barriers; and
 - final landscaping.

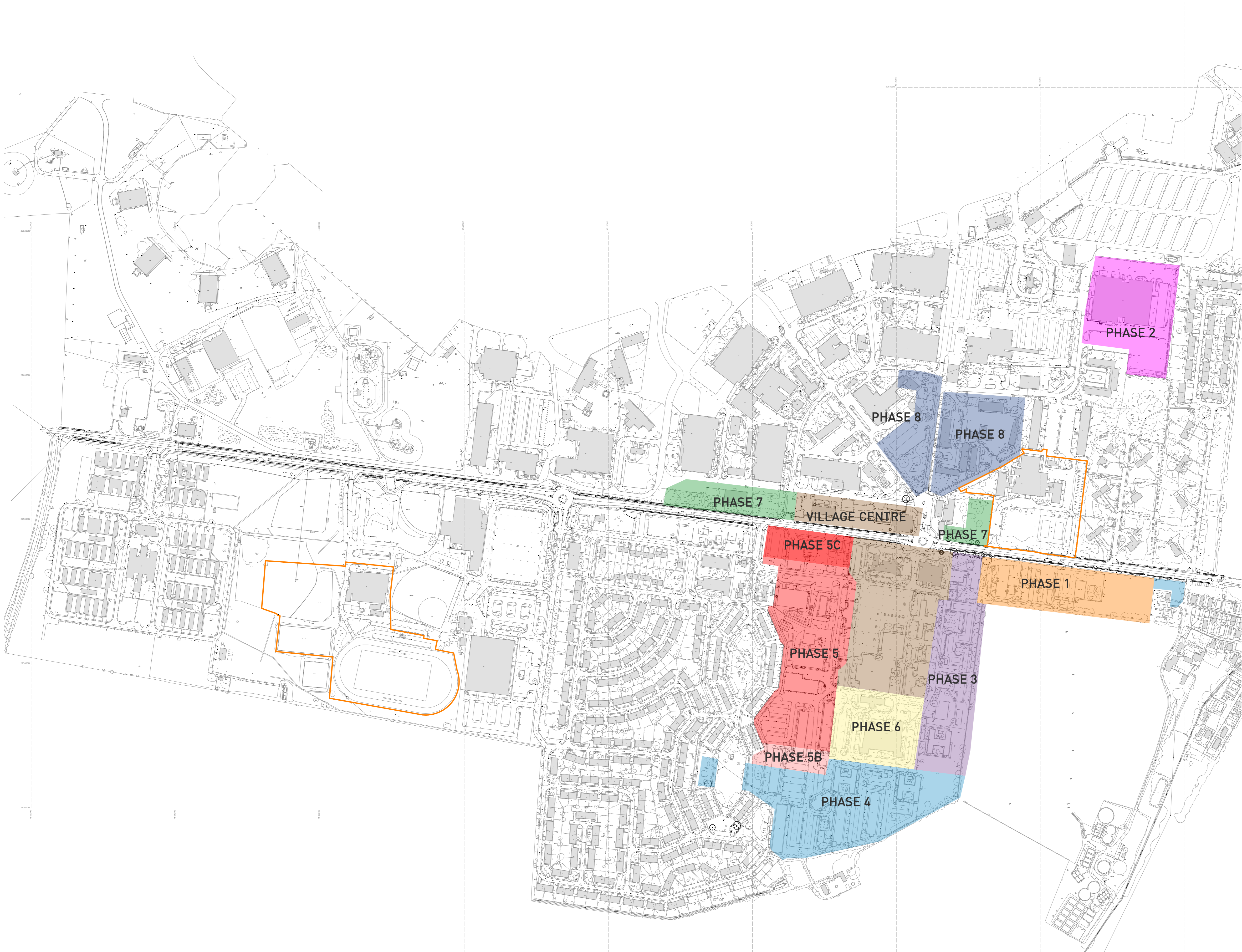
10. SUMMARY

- 10.1 The site is located to the south of Camp Road, at the south-eastern corner of the Former RAF Upper Heyford, Oxfordshire.
- 10.2 The site area at the time of survey consisted of numerous semi-derelict buildings with associated roadways and areas of hardstanding of the Former RAF Base. Currently many of the former buildings and areas of hardstanding have been demolished in accordance with due planning process.
- 10.3 The distribution of trees and groups within the site follow the original footprint of the RAF Base prior to demolition works. Typical trees and groups occupy former road side verges and parcels of greenspace in and around former buildings. Species within the site are largely comprised of mature cypress, maple and lime species with some rowan, whitebeam and hornbeam within.
- 10.4 In total 33 trees/groups are considered relevant to the Phase 4 and 5B site area. Eleven trees/groups within, or directly adjacent to, the site red line area are **considered to be of low quality that is Category 'C' trees with anticipated useful life expectancies of at least 10+ years.** In addition, a further twenty-one trees/groups were assessed as being of moderate quality (Category B); that is with an anticipated remaining life expectancy of at least 20+ years. One item was assessed as being of high quality with an anticipated useful life expectancy of over 40 years.
- 10.5 Proposals will lead to the loss of 20 trees/groups, including 10 low quality (Category C) and 10 moderate quality (Category B) items. Thirteen surveyed items will be retained and protected during development construction using temporary tree protection fencing to BS.5837:2012. As agreed during **pre-application discussions with the LPA's arboriculturist** the loss of the trees/groups will be off-set through extensive new tree planting as part of landscape proposals within the sites interior and southern boundary. It is considered that this will lead to a net benefit from an arboricultural perspective in terms of species number and diversity.

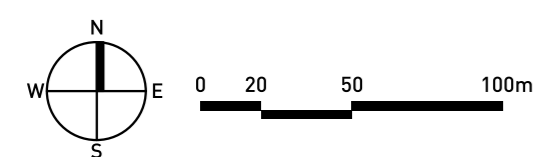
APPENDIX 1

SITE LOCATION PLAN

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KEY	
	PHASE 1 (1.54Ha)
	PHASE 2 (1.68Ha)
	PHASE 3 (1.96Ha)
	PHASE 4 (2.82Ha)
	PHASE 5 (2.56Ha)
	PHASE 5B (0.32Ha)
	PHASE 5C (0.52Ha)
	PHASE 6 (1.22Ha)
	PHASE 7 (0.96Ha)
	PHASE 8 (2.19Ha)
	VILLAGE CENTRE (3.25Ha)
	FREE SCHOOL SITES



HEYFORD PARK - DORCHESTER PHASING PLAN



APPENDIX 2

SCHEDULE OF TREE SURVEY DATA

Number	Species	Height	Estimate	Stem dia	Estimate	Spread						Crown clearance height				Life stage	General observations	Structural condition	Physiological condition	ULE	Quality grading	RPA radius	RPA area			
						N	Estimate	S	Estimate	E	Estimate	W	Estimate	1st branch	Estimate									1st branch direction	Canopy	Estimate
G294	Maple (Norway)	11	-	400	-	0	-	0	-	0	-	0	-	N/A	-	N/A	1	-	M	5 trees. Generally good. Remove basal growth from tree three. Raise canopies to 2m.	High	High	20+	B2	4.8	72.4
G414	Cypress sp.	13	-	370	-	0	-	0	-	0	-	0	-	N/A	-	N/A	2.5	-	M	Screening value. Good group.	High	High	40+	B2	4.4	61.9
G415	Sycamore	10	-	250	-	0	-	0	-	0	-	0	-	N/A	-	N/A	2.5	-	M	Suppressed to south by cypress. ivy on eastern tree.	Medium	Medium	20+	C2	3.0	28.3
T422	Plane (Oriental)	13	-	500	-	3	-	7	-	9	-	7	-	2	-	East	2	-	M	Suppressed to north. In planting area within parking court. Minor hanging deadwood.	Medium	Medium	20+	B1	6.0	113.1
T428	Ash (Common)	13	-	490	-	0	-	0	-	0	-	0	-	N/A	-	N/A	0.5	-	M	Offsite ash. Ivy into canopy. Hawthorn in canopy.	Medium	Medium	20+	B1	5.9	108.6
T429	Cypress sp.	12	-	500	-	0	-	0	-	0	-	0	-	N/A	-	N/A	0.5	-	M	Suppressed by fencing.	Medium	Medium	20+	C1	6.0	113.1
T430	Lime (Small-leafed)	15	-	600	-	5	-	6	-	6	-	7	-	2	-	South	0	-	M	Suppressed by building to north and east. Minor deadwood.	Medium	Medium	40+	B1	7.2	162.9
T431	Lime (Small-leafed)	11	-	380	-	6	-	4.5	-	5	-	5	-	3	-	North	1.5	-	M	Edge of parking court, pushed up paving to north. Good tree.	High	High	40+	B1	4.6	65.3
T433	Sycamore	8	-	400	-	6	-	5	-	5	-	5	-	2	-	South west	2	-	M	Longitudinal crack 1m long to east. Minor deadwood.	Medium	Medium	20+	B1	4.8	72.4
G437	Maple (Norway)	8	-	260	-	0	-	0	-	0	-	0	-	N/A	-	N/A	2	-	M	Two trees. Northern tree dieback in canopy, minor deadwood. In planting area within parking court.	Medium	Medium	20+	C1	3.1	30.6
T441	Maple (Norway)	15	-	440	-	0	-	0	-	0	-	0	-	N/A	-	N/A	2	-	M	Three trees. Middle tree forks at 2m, included bark. Southern tree branches ripped off. Northern tree root girdling. Deadwood, touching building to east.	Medium	Medium	20+	C2	5.3	87.6
T442	Whitebeam	7	-	380	-	5	-	5	-	6	-	5	-	1.5	-	East	1	-	M	Helical growth, multiple pruning wounds not occluded, minor deadwood. Minor branch rubbing at 3m. Good shape.	Medium	Medium	20+	B1	4.6	65.3
T443	Sycamore	12	-	350	-	6	-	6	-	7	-	6	-	2	-	East	0.5	-	M	Multiple pruned branches to north west. Minor deadwood.	Medium	Medium	20+	C1	4.2	55.4
T445	Cypress sp.	15	-	900	-	4	-	3	-	4	-	3	-	N/A	-	N/A	1.5	-	M	Rounded shape, screening value.	Medium	Medium	20+	C1	10.8	366.5
T446	Sycamore	7	-	350	-	4	-	3	-	3	-	3	-	N/A	-	N/A	0.5	-	EM	Offsite, growing through fence.	Medium	Medium	40+	C2	4.2	55.4
G1245	Sycamore, Leyland Cypress, walnut	20	-	600	#	0	-	0	-	0	-	0	-	0	-	-	1	-	M	Group of 13 trees adjacent to access road, good collective form and Arboricultural feature.	Fair	Good	20+	B2	7.2	163
G1250	Leyland Cypress, sycamore, wild cherry	20	-	900	#	0	-	0	-	0	-	0	-	0	-	-	1.5	-	M	Group of 12 trees, good collective form and screening potential. Most trees suppressed in group, included unions. Trees lifted over access road in past.	Fair	Good	10+	B2	10.8	366
T1251	Cypress (Leyland)	18	#	900	#	7	-	8	-	7	-	7	-	0	-	-	0.5	-	M	Multi stemmed tree, significant landscape feature, mature in age with limited useful life expectancy. Included unions in most stems.	Fair	Good	10+	C1	10.8	366
T1252	Alder (grey)	13	-	550	#	6	-	6	-	6	-	3	-	1.5	-	North east	2	-	M	Included union at 0.5m, minor reactive growth, twin stemmed, minor damage to root plate, minor damage to bark-minor decay.	Fair	Good	20+	B2	6.6	137
T1253	Alder (grey)	12	-	600	#	5	-	6	-	4	-	5	-	1	-	South east	1.5	-	M	Included unions at base-good reactive growth, minor mower damage to root plate, multi stemmed.	Fair	Good	20+	B2	7.2	163
T1260	Cherry (Wild)	8	#	280	#	5	#	4.5	#	5	#	5	#	2.5	#	South	3	#	M	Tree located in domestic rear garden, no access to assess stem.	Fair	Good	10+	C2	3.4	35
T1262	Maple (Norway)	12	-	380	-	5	-	5	-	6	-	3	-	2	-	South east	2	-	EM	Located in communal area and forms part of collective group of three trees. Good collective form. Branches close to adjacent building.	Fair	Good	20+	B2	4.6	65
T1263	Maple (Norway)	12	-	320	-	6	-	2.5	-	4	-	5	-	2.5	-	South	2.5	-	EM	Located in communal area and forms part of collective group of three trees. Good collective form.	Fair	Good	20+	B2	3.8	46

Number	Species	Height	Estimate	Stem dia	Estimate	Spread						Crown clearance height				Life stage	General observations	Structural condition	Physiological condition	ULE	Quality grading	RPA radius	RPA area			
						N	Estimate	S	Estimate	E	Estimate	W	Estimate	1st branch	Estimate									1st branch direction	Canopy	Estimate
T1264	Walnut (Common)	10	-	340	-	4	-	7	-	5	-	6	-	2.5	-	South	1	-	EM	Located in lay ground area, low canopy that is weighed to the south, evidence of past crown lifting, rib formation at base of south side of stem-considered not significant.	Fair	Good	20+	B1	4.1	52
T1266	Maple (Norway)	11	-	310	-	3	-	4	-	4	-	4	-	2	-	East	2	-	EM	Part of of collective group, no obvious defects.	Good	Good	20+	B2	3.7	43
T1267	Maple (Norway)	12	-	360	-	6	-	4	-	3	-	4	-	2	-	East	2.5	-	EM	Part of collective group, minor deadwood throughout crown, no obvious defects.	Good	Good	20+	B2	4.3	59
T1268	Maple (Norway)	12	-	320	-	4	-	5	-	4	-	3	-	2.5	-	South	2.5	-	EM	Part of collective group, minor deadwood throughout crown, no obvious defects.	Good	Good	20+	B2	3.8	46
T1269	Maple (Norway)	12	-	440	-	6	-	6	-	6	-	5	-	2	-	South east	2.5	-	M	Part of a collective group, crossed branches throughout crown.	Good	Good	20+	B2	5.3	88
T1270	Maple (Norway)	13	#	370	-	6	-	3	-	6	-	4	-	2	-	South	2	-	EM	Part of collective group, minor deadwood throughout crown, no obvious defects.	Good	Good	20+	B2	4.4	62
T1274	Rowan	6	#	140	#	4	-	1	-	2	-	2	-	2.5	-	East	2	-	M	Located on communal area, stem leaning tote north, minor basal damage.	Fair	Good	10+	C1	1.7	9
T1275	Rowan	6	#	140	#	2	-	2	-	3	-	2	-	2	-	East	1.5	-	M	Located on communal area, stem slightly leaning to the north.	Good	Good	10+	C1	1.7	9
T1291	Lime (Small-leafed)	11.0	-	420	-	7.0	-	7.0	#	7.0	-	7.0	-	2.5	-	East	2.0	-	M	Located in verge adjacent to domestic property,	Fair	Good	40+	A1	5.0	80
T1292	Sycamore	14.0	-	450	#	6.0	#	6.0	#	6.0	#	6.0	#	2.0	-	East	2.5	-	M	Located in domestic front garden, no access to	Good	Good	20+	B1	5.4	92

APPENDIX 3

ARBORICULTURAL IMPACT ASSESSMENT SCHEDULE

		Arboricultural Impact Assessment Significance Matrix					
		Level of Impact					
		High	Medium	Low	Slight	None	
		e.g. removal required to facilitate development. Excessive root severance. Excessive above ground pruning. Hedgerows: >50% loss of overall length.	e.g root damage, soil compaction or above ground impacts tree management works unacceptable in terms of BS3998:2010. Hedgerows: >25% loss of overall length.	e.g. minor fine root loss, installation of no dig surfacing, temporary ground protection. Moderate tree works within the parameters of BS3998:2010. Hedgerows: 5-10% loss of overall length.	e.g.very minor works within root protection areas for example the installation of lightweight fencing or soft landscaping. Hedgerows: <5% loss of overall length.	E.g. trees located at a significant distance from development and construction activities.	
BS5837:2012 Quality Assessment Category	A	Major	Major	Moderate	Minor	None	Significance of effect
	B	Major	Moderate	Minor	Insignificant	None	
	C	Moderate	Minor	Insignificant	Insignificant	None	
	U	Minor	Minor	Insignificant	Insignificant	None	
		Significance of effect					

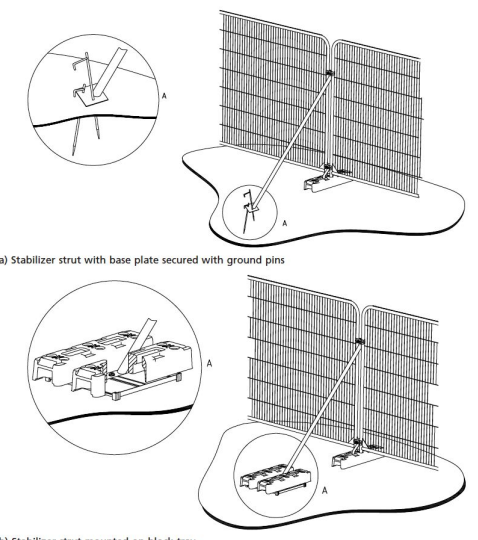
Significance of effect - definitions	
Major	Removal/acute damage to structural integrity/vitality/appearance of a high quality arboricultural feature. Depending on circumstances, may result in the loss of all/greater majority of public visual amenity value. Mitigation planting unlikely to be effective except in the long term (40+ years).
Moderate	In the case of damage: unlikely to give rise to tree death but likely to noticeably reduce vitality and deterioration of appearance in the short and medium term, with corresponding reduction in public visual amenity value where relevant. Tree removals that can be effectively mitigated in the medium term (20-40 years). For example notable crown dieback, foliage discolouration, low leaf density, or tree management works unacceptable in terms of BS3998:2010.
Minor	Short-term damage with limited distribution that can be reasonably compensated for by new growth. Unlikely to result in observable symptoms of damage in relation to structural integrity/vitality/appearance. No obvious impact on public visual amenity. Tree removals that can be mitigated in the short-term (10-20 years)
Insignificant	Minimal damage in very small amounts. No obvious impact on public visual amenity.
None	No impact to above or below ground components of tree reasonably anticipated.

No	Species	Quality	Arboricultural effects (direct and indirect) of proposed design - description	Unadjusted degree of Arboricultural Impact on tree	Unadjusted significance of Arboricultural Impact	Recommended mitigation	Adjusted degree of Arboricultural Impact on tree/site's arboricultural resource	Adjusted significance of Arboricultural Impact	Tree removal required
G294	Maple (Norway)	B2	Removal to facilitate proposals (Only trees as part of the group within the Phase 4 and 5B area are to be removed).	Medium	Major	Replacement planting as part of landscaping proposals	Low	Minor	Partial
G414	Cypress sp.	B2	Removal as part of proposals	High	Major	New tree planting as part of landscaping proposals	Medium	Moderate	Yes
G415	Sycamore	C2	Removal as part of proposals	High	Moderate	New tree planting as part of landscaping proposals	Medium	Minor	Yes
T422	Plane (Oriental)	B1	Retained as part of proposals. Potential direct above and below ground impacts associated with construction activities.	Medium	Major	Installation of temporary tree protection fencing to BS.5837:2012 during main construction phase	Low	Minor	No
T428	Ash (Common)	B1	Swale to be constructed in outer RPA. Lateral reduction required to allow swale construction	Medium	Moderate	Pruning works to be carried out in accordance with BS.3998:2010.	Low	Minor	No
T429	Cypress sp.	C1	Removal as part of proposals	High	Moderate	New tree planting as part of landscaping proposals	Medium	Minor	Yes
T430	Lime (Small-leaved)	B1	Removal as part of proposals	High	Moderate	New tree planting as part of landscaping proposals	Medium	Minor	Yes
T431	Lime (Small-leaved)	B1	Retained as part of proposals. Potential direct above and below ground impacts associated with construction activities.	Medium	Major	Installation of temporary tree protection fencing to BS.5837:2012 during main construction phase	Low	Minor	No
T433	Sycamore	B1	Retained as part of proposals. Potential direct above and below ground impacts associated with construction activities.	Medium	Major	Installation of temporary tree protection fencing to BS.5837:2012 during main construction phase	Low	Minor	No
G437	Maple (Norway)	C1	Removal as part of proposals	High	Moderate	New tree planting as part of landscaping proposals	Medium	Minor	Yes
T441	Maple (Norway)	C2	Removal as part of proposals	High	Moderate	New tree planting as part of landscaping proposals	Medium	Minor	Yes
T442	Whitebeam	B1	Removal as part of proposals	High	Major	New tree planting as part of landscaping proposals	Medium	Moderate	Yes
T443	Sycamore	C1	Removal as part of proposals	High	Moderate	New tree planting as part of landscaping proposals	Medium	Minor	Yes
T445	Cypress sp.	C1	Removal as part of proposals	High	Moderate	New tree planting as part of landscaping proposals	Medium	Minor	Yes
T446	Sycamore	C2	Removal as part of proposals	High	Moderate	New tree planting as part of landscaping proposals	Medium	Minor	Yes
G1245	Sycamore, Leyland Cypress, walnut	B2	Removal as part of proposals	High	Major	New tree planting as part of landscaping proposals	Medium	Moderate	Yes
G1250	Leyland Cypress, sycamore, wild cherry	B2	Removal as part of proposals	High	Major	New tree planting as part of landscaping proposals	Medium	Moderate	Yes
T1251	Cypress (Leyland)	C1	Removal as part of proposals	High	Moderate	New tree planting as part of landscaping proposals	Medium	Minor	Yes
T1252	Alder (grey)	B2	Retained as part of proposals. Potential direct above and below ground impacts associated with construction activities.	Medium	Moderate	Installation of temporary tree protection fencing to BS.5837:2012 during main construction phase	Low	Minor	No
T1253	Alder (grey)	B2	Retained as part of proposals. Potential direct above and below ground impacts associated with construction activities.	Medium	Moderate	Installation of temporary tree protection fencing to BS.5837:2012 during main construction phase	Low	Minor	No
T1260	Cherry (Wild)	C2	Retained as part of proposals. Potential direct above and below ground impacts associated with construction activities.	Medium	Minor	Installation of temporary tree protection fencing to BS.5837:2012 during main construction phase	Low	Insignificant	No
T1262	Maple (Norway)	B2	Retained as part of proposals. Potential direct above and below ground impacts associated with construction activities.	Medium	Moderate	Installation of temporary tree protection fencing to BS.5837:2012 during main construction phase	Low	Minor	No
T1263	Maple (Norway)	B2	Retained as part of proposals. Potential direct above and below ground impacts associated with construction activities.	Medium	Moderate	Installation of temporary tree protection fencing to BS.5837:2012 during main construction phase	Low	Minor	No
T1264	Walnut (Common)	B1	Retained as part of proposals. Potential direct above and below ground impacts associated with construction activities.	Medium	Moderate	Installation of temporary tree protection fencing to BS.5837:2012 during main construction phase	Low	Minor	No
T1266	Maple (Norway)	B2	Removal as part of proposals	High	Major	New tree planting as part of landscaping proposals	Medium	Moderate	Yes
T1267	Maple (Norway)	B2	Removal as part of proposals	High	Major	New tree planting as part of landscaping proposals	Medium	Moderate	Yes
T1268	Maple (Norway)	B2	Removal as part of proposals	High	Major	New tree planting as part of landscaping proposals	Medium	Moderate	Yes
T1269	Maple (Norway)	B2	Removal as part of proposals	High	Major	New tree planting as part of landscaping proposals	Medium	Moderate	Yes
T1270	Maple (Norway)	B2	Retained as part of proposals. Potential direct above and below ground impacts associated with construction activities.	Medium	Moderate	Installation of temporary tree protection fencing to BS.5837:2012 during main construction phase	Low	Minor	No
T1274	Rowan	C1	Removal as part of proposals	High	Moderate	New tree planting as part of landscaping proposals	Medium	Minor	Yes

No	Species	Quality	Arboricultural effects (direct and indirect) of proposed design - description	Unadjusted degree of Arboricultural Impact on tree	Unadjusted significance of Arboricultural Impact	Recommended mitigation	Adjusted degree of Arboricultural Impact on tree/site's arboricultural resource	Adjusted significance of Arboricultural Impact	Tree removal required
T1275	Rowan	C1	Removal as part of proposals	High	Moderate	New tree planting as part of landscaping proposals	Medium	Minor	Yes
T1291	Lime (Small-leafed)	A1	Retained as part of proposals. Potential direct above and below ground impacts associated with construction activities.	Medium	Major	Installation of temporary tree protection fencing to BS.5837: 2012 during main construction phase	Low	Moderate	No
T1292	Sycamore	B1	Retained as part of proposals. Potential direct above and below ground impacts associated with construction activities.	Medium	Moderate	Installation of temporary tree protection fencing to BS.5837: 2012 during main construction phase	Low	Minor	No

APPENDIX 4

TREE RETENTION/LOSS AND PROTECTION PLAN

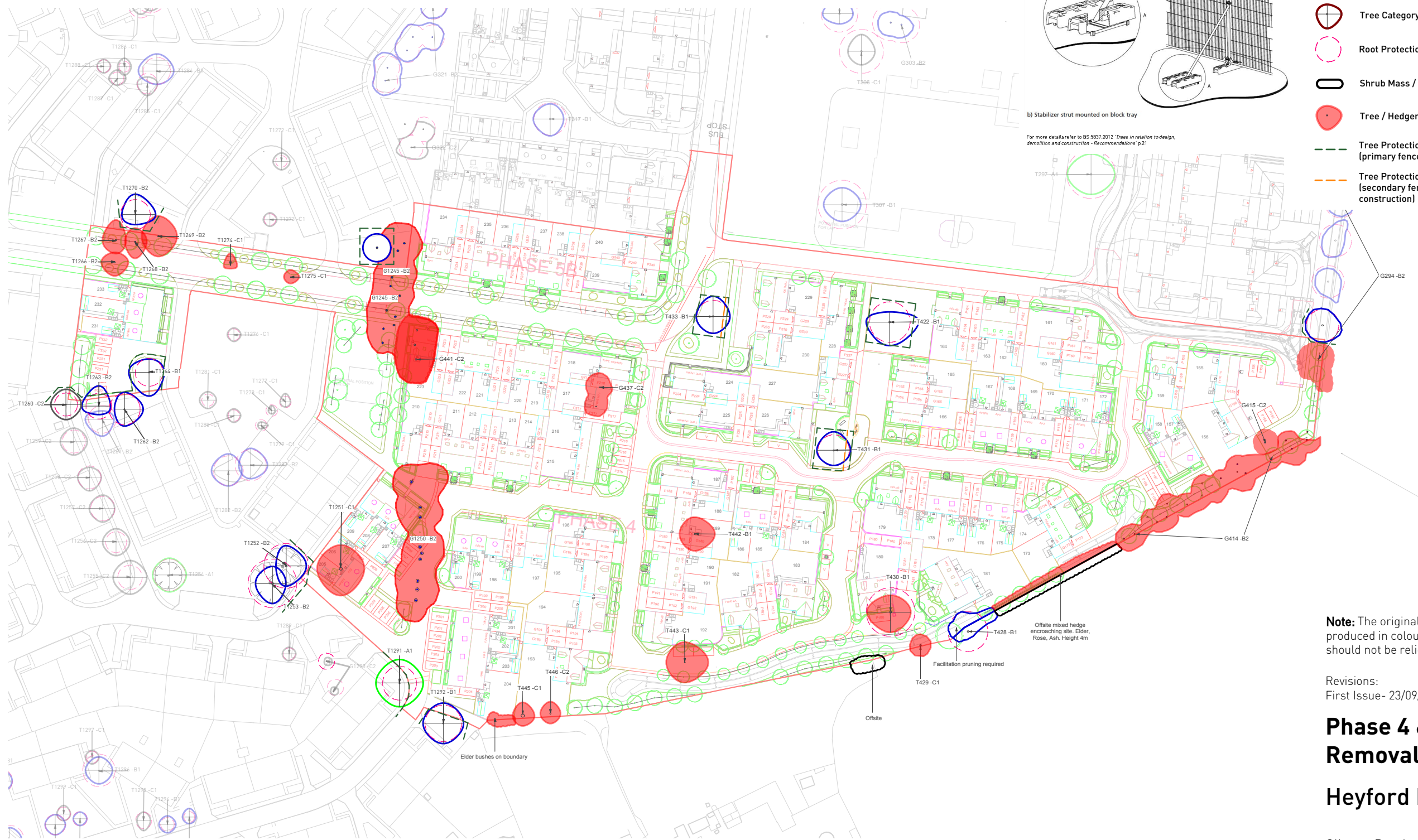


a) Stabilizer strut with base plate secured with ground pins

b) Stabilizer strut mounted on block tray

For more details refer to BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations' p.21

- KEY BS 5837 : 2012 Categories**
- ⊕ Tree Category A - High Quality
 - A Category - Hedgerow, Group, Woodland
 - ⊕ Tree Category B - Moderate Quality
 - B Category - Hedgerow, Group, Woodland
 - ⊕ Tree Category C - Low Quality
 - C Category - Hedgerow, Group, Woodland
 - ⊕ Tree Category U - Unsuitable for Retention
 - Root Protection Area to BS 5837:2012
 - Shrub Mass / Offsite Tree
 - Tree / Hedgerow to be Removed
 - Tree Protection Barrier to BS 5837:2012 (primary fence line position)
 - Tree Protection Barrier to BS 5837:2012 (secondary fence line position during footpath construction)



Note: The original of this drawing was produced in colour - a monochrome copy should not be relied upon.

Revisions:
First Issue- 23/09/2015 AD

Phase 4 & 5B Retention / Removal & Protection Plan

Heyford Park

Client: Dorchester Group
 DRWG No: **D.0341_76** Sheet No: _ REV: _
 Drawn by : AD Approved by: MP
 Date: 23/09/2015
 Scale: 1:1,250 @ A3

