

Arboricultural Statement

Phase 8A, Upper Heyford

On behalf Heyford Park Settlements LP

11th February 2019

Prepared by: Michael Paginton TechArborA

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

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REVISIONS:

Date	Rev	Description	Initials
11.02.19	-	First Issue	MGP

1 INTRODUCTION

- 1.1 LandArb Solutions Ltd have been instructed by Heyford Park Settlements LP to prepare an Arboricultural Impact Assessment to accompany a planning application for residential development relating to Phase 8A at the former RAF Upper Heyford.
- 1.2 The Phase 8A site area is located within the Phase 8 Trident area where previous planning applications for development have been approved, including:
- Phase 8 - Approved Reserved Matters Application 16/00864/REM relating to Phase 8 Trident; and
 - Phase 8 Trident Roads Approved Application 17/00663/F.
- 1.3 Each of the above applications was supported by Arboricultural Impacts Assessments which identified required tree loss, impacts to retained trees and required protection and mitigation measures.

Tree survey update

- 1.4 An RAF Upper Heyford site wide tree survey was undertaken by Pegasus Group between 2013-2017. Additional land parcels were further added to this site wide tree survey by West Waddy ADP in September 2017.
- 1.5 The previous Pegasus Group site wide tree survey has formed the arboricultural baseline for further arboricultural assessments in support of planning applications for development at Upper Heyford.
- 1.6 With regard to this application for proposed development relating to Phases 8A a tree re-survey in accordance with BS.5837:2012 was carried out by LandArb Solutions on 24th January 2019. A tree re-survey was required to ensure the arboricultural baseline for Phase 8A was accurate and up to date; given that tree removals and other

development works have been undertaken/implemented as part of previous permissions within the site area.

1.7 The results of the tree re-survey are set out within revised tree survey schedules and shown on revised tree survey and constraints plans relevant to each phase. These are set out within the following appendices:

- Appendix 1 – Phase 8A Tree Survey Schedule;
- Appendix 2 – Phase 8A Tree Survey and Constraint's Plan;

Arboricultural Impact Assessment requirement

1.8 This Arboricultural Impact Assessment has been prepared to assess the potential direct and indirect impacts of new development proposals for Phase 8A. This assessment has had regard to the following:

- Previous land use and presence of existing/previous (now demolished) built form;
- Previous approved planning permissions for residential development and road infrastructure relevant to Phase 8 and Phase 8 Trident Roads; and
- Findings/conclusions from each Arboricultural Impact Assessments prepared in support of the previous approved planning applications.

1.9 This Arboricultural Impact Assessment therefore provides an assessment of the potential impacts of current Phase 8A development proposals against/in comparison with the previous consented residential scheme with regard to existing/retained trees.

2 DOCUMENTS AND INFORMATION RECEIVED

2.1 For the purposes of preparing this Arboricultural Impact Assessment LandArb Solutions were provided with the following information:

1. Site wide tree survey and tree survey schedule prepared by Pegasus Group between 2013-2017.
2. Site wide tree survey partial update prepared by West Waddy ADP dated September 2017.
3. Phase 8A Planning Layout, Focus Design, drawing 0521-PH8A-102, dated December 2018
4. Phase 8A and 8C detailed planting proposals (dwg 1619 A5 8A 06-07D) by Focus Design.

3 ARBORICULTURAL IMPACT ASSESSMENT: PHASE 8A

- 3.1 With reference to BS5837:2012 '*Trees in relation to design, demolition and construction*', this AIA evaluates the direct and indirect effects of the Phase 8A proposals (see Appendix 3) on the site's arboricultural resource.

Background

- 3.2 Phase 8A is located within the north-western part of the Trident Phase 8 site area. Reserved Matters Application 16/00864/REM for Phase 8 was approved on 23rd December 2016 for the provision of 91 residential units. This application was supported by an Arboricultural Impact Assessment prepared by Pegasus Group (D.0341, dated 15.04.16).
- 3.3 Since the approval of Application 16/00864/REM, hard surfacing/standing in the 8A area (and wider Phase 8 site) has been demolished/removed in accordance with the permission. This has included the removal of trees that were identified to be removed on the Phase 8 Tree Retention/Removal Plan (Drawing D.0341_95) set out within the Phase 8 Arboricultural Impact Assessment by Pegasus Group dated 15.04.16.
- 3.4 The Phase 8 approved consent (Application 16/00864/REM) located two blocks of flats within the northern and central part of the Phase 8A site and two additional blocks of flats within the southern part of the Phase 8A site area.

Phase 8A Development Proposals

- 3.5 Current Phase 8A proposals seek to redesign the approved Phase 8 proposals in this area to replace the two blocks of flats within the northern and central area of the Phase 8A with nine residential dwellings. In addition to the change in accommodation type, proposals re-organise the associated parking arrangements.

Assessment of the Impacts of Phase 8A

- 3.6 Phase 8A proposals have been overlaid with the tree survey and are shown on the Tree Retention/Removal and Protection Plan in Appendix 4.
- 3.7 As shown, proposals can retain all existing trees within the site area. No new tree removal is required to implement proposals. In this context there is no change regarding tree retention and loss compared with the previous approved scheme in this area.
- 3.8 The proposed Phase 8A planning layout also shows that there has been no significant change regarding dwelling location in relation to trees. Phase 8A proposals direct new dwellings away from retained trees and none encroach into any RPA.
- 3.9 Plots 442-445 are largely in the same position as a block of flats approved under the previous application. However, current proposals located additional dwellings on this northern boundary area to the south of G485. The new dwellings plots 446-448 are located outside of the RPA and to the south of G548. In this context, no shading issues will occur. Designs have also responded to the arboricultural constraints by orientating the dwellings on an east-west alignment ensuring the new dwellings do not directly face onto G485 and residential amenity space is also kept away from the retained trees. In this context, no overbearing impacts are envisaged.
- 3.10 Overall, it is considered that the design of Phase 8A proposals is acceptable. New dwellings are located away from retained trees. Moreover, proposals have responded to the arboricultural constraints of the site and designed retained trees into open space. The proposed planning layout has therefore respected the need to ensure trees agreed to be retained under the previous approved application are also retained under current proposals.
- 3.11 A review of the proposed Phase 8A Planning Layout does identify some minor changes with regard to hard surface installation and removal compared with the previous approved application. This is discussed further below.

Installation of hard surfacing

- 3.12 The Phase 8A Planning layout proposes hard surfacing to be installed within the default RPAs of several retained trees.
- 3.13 A tarmac footpath is to be installed between T1470 and T1471 within their RPA. This footpath was previously proposed and approved under the previous application. The previous Arboricultural Impact Assessment prepared by Pegasus Group set out that this would be installed using a no dig methodology. In this context, the proposed tarmac footpath is considered to be acceptable provided that it is installed using a no dig methodology (i.e. an above ground cellular confinement system such as CellWeb or Geocell)
- 3.14 To the southern part of Phase 8A new tarmac footpaths are proposed that run through the south western RPAs of T461 and T1474 as well as running between T1474 and T1475. The footpath to the south-west of T1461 and T1474 is a new addition compared with the previous approved scheme however, the footpath between T1474 and T1475 was previously approved, albeit its current alignment is now closer to T1474 than previously. The installation of these footpaths will require to be installed using a no dig methodology.
- 3.15 G498 is to be retained within a small area of open space surrounded by new block paving associated with the parking area. This arrangement has not changed compared with the previous approved scheme. Although a small area of block paving is shown to be within the default RPA of G498 (south-western side) it is important to note a tarmac access existed in this location which was much closer to the stem of the southern tree (as shown on the tree survey and constraints plan). In this context, although there is some slight encroachment in the default RPA by current proposals, overall there is a significant reduction in hard surfacing in this area compared with the

current/previous land use. Overall, current proposals in this area are considered to be a betterment in this regard.

- 3.16 The previous approved Phase 8 application retained T488-T490 within open space, although hard surfacing for the parking area encroached into the northern RPA of T488 and south-western RPA of T490. As part of the previous permission, the removal of hard surfacing from the southern RPA of T490 and eastern RPA of T488 and T489 was approved along with the demolition of the building immediately adjacent to (and within the default RPA of) T488 and T490. Current Phase 8A proposals re-organise the parking area and dwelling position. Rather than being surrounded by parking on three sides, T488-T490 are now to be retained within a larger area of open space. Block Paving parking is now only proposed on the south-western side of T490 and south side of T489 with the parking to the north of T488 having been dropped. Although block paving encroaches into the RPA of T490 it must be noted that this was the case (to a lesser extent) under the approved previous scheme and the block paving is within an area where hard surfacing has been removed previously. In addition, T490 has also been recently canopy recued due to its condition. In this context, proposals are broadly acceptable given the recent tree works, low quality condition and existing disturbance in this part of the RPA.
- 3.17 However, Phase 8A proposals now locate proposed dwelling Plot 446 to the north of T488 and a paving slab footpath through the eastern RPAs of T488 and T490. The paving slabs are partly within an area that has not had hard surfacing before, therefore it is recommended they are installed using a no dig methodology. The northern canopy of T488 will require pruning to ensure at least a 1m clearance of the proposed plot 446.
- 3.18 Current Phase 8 proposals also now locate paving slab footpaths within the RPAs of G485 (western tree) T483 and T481. Excavating/installing these footpaths has the potential to cause localised root damage in these areas. It is therefore recommended

that new footpath installation adopt a no dig methodology (i.e. above ground cellular confement such as cellweb).

- 3.19 The previous approved scheme located a tarmac footpath through the western RPAs of T1467, T1466 and T495. This is now no longer proposed for the new Phase 8A development scheme, with the area remaining open space and hard surface free. In this context, Phase 8A proposals in this area are considered to be an improvement compared to the previous approved scheme.

Removal of hard surfacing

- 3.20 Under the previous scheme Phase 8 scheme the existing trident road and footpath running to the eastern side of T1468-T1474 was to be retained/upgraded. It is now proposed that the existing road will be made narrower to form a pedestrian/cycle link rather than a through road. The concrete slab footpath which these trees align will be removed as will part of the tarmac road. In this context, this will result in a reduction in hard surfacing from within the RPAs of these retained trees which will be returned to open space. This has the potential to significantly improve the rooting environment and is therefore considered to be a betterment compared with the previous scheme and existing situation.

Tree Protection

- 3.21 In order to avoid potential direct and indirect impacts to retained trees from construction activities, temporary tree protection fencing will need to be installed as shown on the Tree Retention/Removal and Protection Plan (Appendix 4).
- 3.22 Tree protection fencing will need to be installed within its primary position prior to and for the duration of construction activities. Fencing is to be adjusted to its secondary positions following the removal of hard surfacing from the RPAs of T1468 - T1474, as well as to allow for the installation of no dig footpaths in relation to T461/T1474, T1471/T1470, T488/T490, and G485/T483 and T481.

3.23 Removing the concrete path from the eastern RPA of T1468-T1474 does have the potential to cause damage to nearby trees and their roots, therefore works should be carried out sensitively. It is recommended that the following working method is adopted:

- Hard surfacing is to be broken up and lifted out using hand tools. If lightweight mechanical plant is required this must operate from existing areas of hard surfacing working backwards.
- Works should progress backwards over existing hard surfacing areas to avoid encroaching into exposed areas of the RPAs once hard surfacing sections are removed
- Once hard surfacing is removed, the ground should be made up to surrounding levels using clean topsoil.
- No mechanical plant is to enter any exposed area of the RPAs. No material are to be stored or excavations occur within any exposed RPA.

Summary

3.1 Having reviewed the proposed Phase 8A Planning Layout it is concluded that proposals are acceptable from an arboricultural perspective for the following reasons:

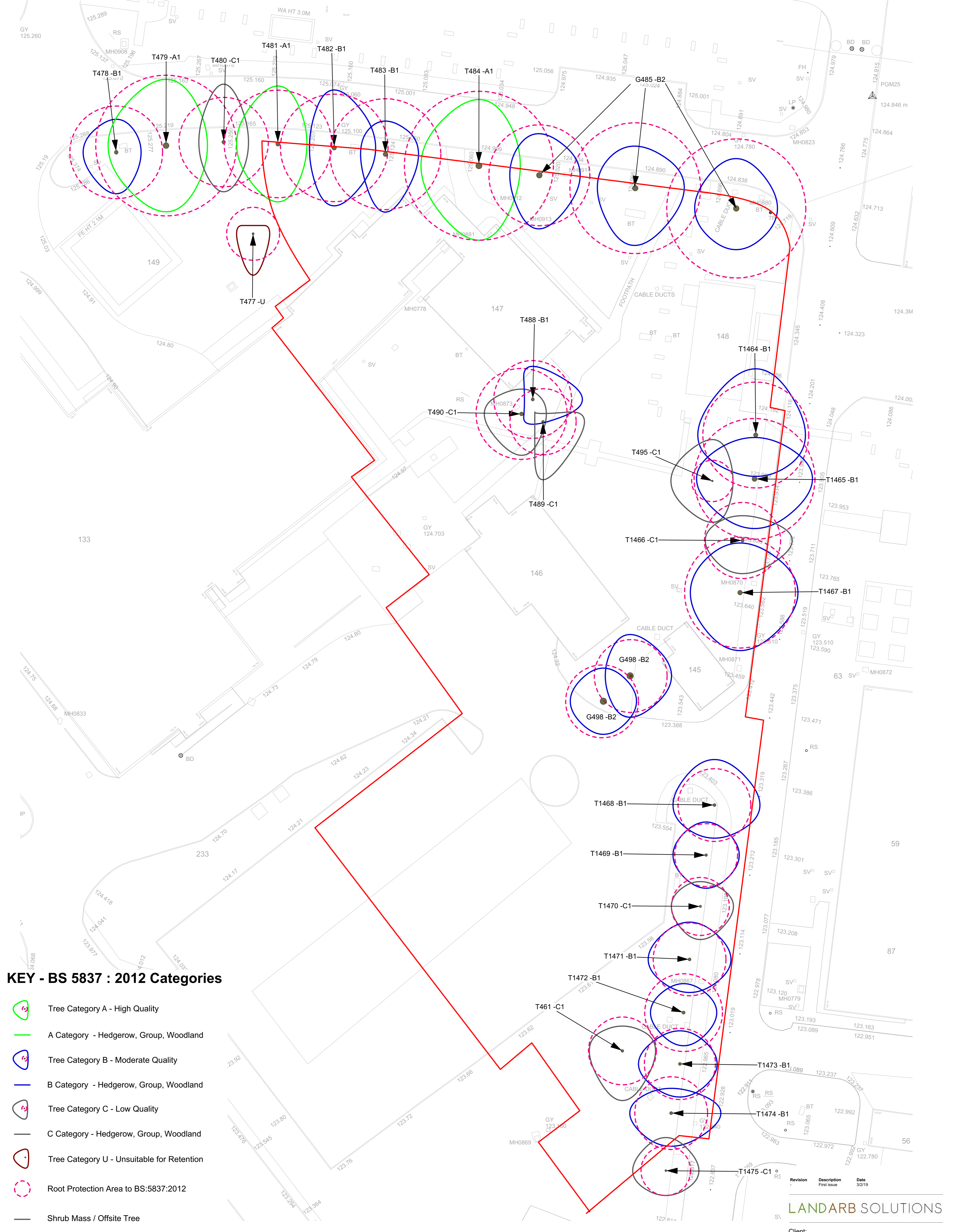
- No survey items require removal and all can be retained;
- No tree significant tree works are required to implement proposals;
- All retained trees will be retained within an areas of public open space.
- Proposals have respected the arboricultural constraints of the site and located new residential development outside of the RPAs and away from the retained trees.
- Proposals will lead to the removal of hard surfacing from the RPAs of T1468-T1474.
- Retained trees can be adequately protected from harm during the construction process using tree protection fencing and no dig methodologies for footpath construction.
- Proposals do not undermine the previous planning permission for Phase 8 (16/00864/REM) relevant to the 8A site area in relation to tree retention and arboricultural impacts.

APPENDIX 1: PHASE 8A TREE SURVEY SCHEDULE










Date	Site: Upper Heyford											Surveyor: MP			Client: Dorchester Group		Job no: LAS 42									
Ref number	Species	Height	Estimate	Stem dia	Estimate	Spread						Crown clearance height					Life stage	General observations Physiological and structural condition. Preliminary management recommendations	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
T477	Birch (Silver)	10	-	270	-	1	-	5	-	2	-	2	-	2	-	South	2	-	M	Suppressed to north. Limited canopy, multiple fungal bracket on stem and upper stem and at base, remove	Poor	Poor	<10	U	3.2	33.0
T478	Chestnut (Horse)	13	-	470	-	4	-	5	-	3	-	4	-	N/A	-	N/A	2	-	M	Forks at 2m, lots of knuckles, stems drawn up, canopy suppressed east side	Fair	Fair	20+	B1	5.6	99.9
T479	Beech (Common)	18	-	710	-	8	-	8	-	5	-	7	-	4	-	East	1.5	-	M	. Minor deadwood. Spreading canopy, some bulging/calluses with split bark, Good tree.	Fair	Good	40+	A1	8.5	228.1
T480	Sycamore	14	-	450	-	7	-	6	-	3	-	3	-	3	-	North	2	-	M	Exposed roots. Branches shaded out, minor to moderate deadwood and abscised branches., suppressed to east and west	Fair	Fair	10+	C1	5.4	91.6
T481	Beech (purple)	14	-	540	-	7	-	7	-	3.5	-	5	-	6	-	South	2	-	M	Typical of age and species. Good tree. Slight canopy suppression east and west,	Good	Good	40+	A1	6.5	131.9
T482	Chestnut (Horse)	15	-	540	-	7	-	7	-	5	-	0	-	3	-	South	1.5	-	M	Minor deadwood. Several small cavities with decay,	Fair	Fair	20+	B1	6.5	131.9
T483	Sycamore	15	-	560	-	4	-	7	-	4	-	3	-	6	-	South	1.5	-	M	Touching partially demolished cabins to south. Open crown, minor deadwood. Exposed roots.	Fair	Fair	20+	B1	6.7	141.9
T484	Beech (Common)	16	-	750	-	8	-	9	-	5	-	7	-	6	-	South	1.5	-	M	Random metal post in trunk at 1m north, tree grown around it. Moderate deadwood in shaded crown. Bark damage at 2.5m south. Suppressed to east, old wound southern limb western side.	Fair	Good	40+	A1	9.0	254.5
G485	Chestnut (Horse)	16	-	690	-	As on plan						N/A	-	N/A	1.5	-	M	Three trees. Western tree has large patch of wet bark and bark that has pulled away exposing soft wood, tree needs monitoring. Central tree has black exudate symptomatic of canker bark in upper canopy is splitting with some signs of decay, tree needs climbing inspection and monitoring. Minor deadwood, to moderate deadwood crossing branches and exposed roots observed. Eastern tree telephone pole in canopy pruned in past. Stem diameters taken separately.	Fair	Fair	20+	B2	8.3	215.4		
T488	Birch (Silver)	14	-	390	-	4	-	3	-	6	-	1	-	7	-	West	2	-	M	Slight lean to north, adjacent building removed, past branch loss, unable to access to check previous data,	Fair	Fair	20+	B1	4.7	68.8
T489	Birch (Silver)	12	-	330	-	0.5	-	7	-	5	-	0.5	-	2.5	-	South west	1.5	-	M	Helical growth. Suppressed to north by cherry. Lean to south east,	Fair	Fair	10	C1	4.0	49.3
T490	Cherry (Wild)	10	-	460	-	3	-	4	-	3	-	4	-	2	-	West	0.5	-	M	Root girdling. Evidence of woodpeckers, holes potentially indicate internal decay. Cavities 3m south east on main limb. Additional cavities observed. Crown reduced in recent past. Unable to access to check previous measurements.	Fair	Fair	<10	C1	5.5	95.7
T495	Apple/unknown	6	-	210	-	5	-	5	-	2.5	-	5	-	2.5	-	North	2	-	M	Grafted at base, suppresses vertically, canopy touring western side,	Fair	Fair	10+	C1	2.5	20.0
G498	Birch (Silver)	11	-	370	-	As on plan						N/A	-	N/A	2	-	M	Two trees. Southern tree, cavity at 3m. Pruning wounds.	Fair	Fair	10+	B2	4.4	61.9		
T1464	Norway maple	15	-	530	-	8	-	5	-	6	-	7	-	3.5	-	West	2.5	-	M	Exposed roots that are constrained by hard standing to north and east, dense canopy, good shape, some minor to moderate deadwood, evidence of past pruning. Several batches of black lesions on bark on stem larger lesion western lib possibly canker, monitor	Fair	Good	20+	B1	6.4	127
T1465	Sycamore	16	-	610	-	5	-	6	-	7	-	7	-	3	-	South	3	-	M	Good shape, dense canopy, minor deadwood, some minor root damage.	Fair	Good	20+	B1	7.3	168
T1466	Sycamore	15	-	380	-	3	-	4	-	6	-	4.5	-	2.5	-	North east	3.5	-	M	Suppressed to north and south, moderate deadwood, thinning canopy, union at 2.5m. Low quality tree	Fair	Fair	10+	C1	4.6	65
T1467	Sycamore	15	-	560	-	6	-	7	-	7	-	6	-	3	-	North	2	-	M	Spreading canopy, good leaf bearing structure, union at 2.5m,	Fair	Good	20+	B1	6.7	142
T1468	Sycamore	13	-	370	-	5.5	-	4	-	5.5	-	5	-	3	-	South	2	-	M	Dense canopy, good shape, pruned in past, minor deadwood, some exposed roots, hard surfacing north and east	Fair	Good	20+	B1	4.4	62
T1469	Sycamore	13	-	320	-	4	-	4	-	4	-	4	-	3.5	-	East	3	-	M	Reasonably dense canopy, some deadwood, pruned in past, stem Knick's to north	Fair	Fair	20+	B1	3.8	46
T1470	Sycamore	10	-	290	-	3	-	4	-	4	-	3.5	-	3	-	South	3	-	M	Dieback in crown, pruned in past, minor to moderate deadwood,	Fair	Fair	20+	C1	3.5	38
T1471	Sycamore	13	-	370	-	4.5	-	4	-	5	-	5	-	2.5	-	South west	2.5	-	M	Dense canopy, good shape, minor deadwood, pruned in past south side, , some exposed roots	Fair	Fair	20+	B1	4.4	62
T1472	Sycamore	14	-	390	-	3.5	-	4	-	4	-	4	-	3	-	South	2	-	M	Minor deadwood, some thinning to canopy edge, some exposed roots pruned in past	Fair	Fair	20+	B1	4.7	69
T1473	Sycamore	13	-	360	-	4	-	4	-	4.5	-	5	-	3	-	West	3	-	M	Some exposed roots, thin internal canopy, pruned in past, some deadwood, concrete pa5h set to the east,	Fair	Fair	20+	B1	4.3	59
T1474	Sycamore	13	-	370	-	3	-	4	-	6	-	5	-	3	-	West	2.5	-	M	Thin internal canopy, minor to moderate deadwood, some snapped branches suppressed canopy north side	Fair	Fair	20+	B1	4.4	62
T1475	Sycamore	12	-	250	-	4	-	3	-	4	-	4	-	3	-	South	2.5	-	M	Moderate deadwood, thin canopy structure, low quality	Fair	Fair	10+	C1	3.0	28

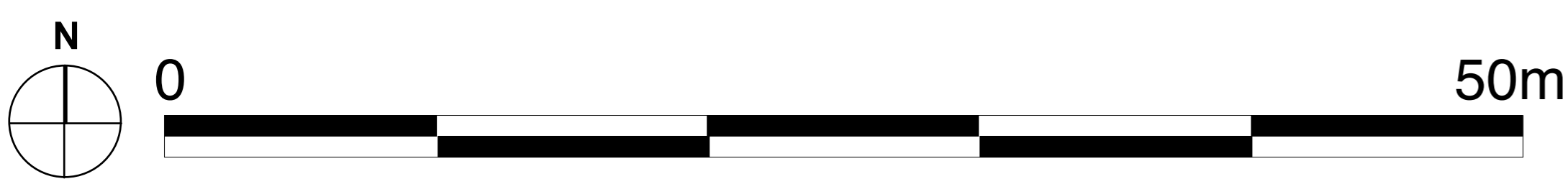
T1476	Sycamore	11	-	410	-	4	-	4	-	4	-	4	-	3	-	West	4	-	M	Thinning canopy, moderate deadwood, some exposed roots	Fair	Fair	20+	C1	4.9	76
T1477	Sycamore	10	-	280	-	3	-	3	-	3	-	4	-	2	-	East	2	-	M	Pruned in past, union at 2.5m, some snapped branches, concrete path to east, low quality	Fair	Fair	10+	C1	3.4	35
T1478	Sycamore	10.5	-	300	-	3.5	-	2.5	-	4.5	-	5	-	3	-	North	2	-	M	Suppressed southern canopy, pruned in past, minor deadwood, tin canopy structure, low quality tree	Fair	Fair	10+	C1	3.6	41
T1479	Sycamore	13	-	490	-	4	-	5	-	6	-	7	-	2.5	-	South east	4	-	M	Some exposed roots, dense canopy, good shape, minor deadwood, evidence of past branch loss. Concrete path to east	Fair	Fair	20+	B1	5.9	109
T1480	Sycamore	14	-	350	-	3.5	-	3.5	-	6	-	4.5	-	5	-	East	5	-	M	Moderate deadwood in crown with dead north eastern limb needs removing, some exposed roots, pruned in past, some dieback, suppressed on south western side, thinning canopy. Low quality.	Fair	Fair	10+	C1	4.2	55

APPENDIX 2: PHASE 8A TREE SURVEY AND CONSTRAINT'S PLAN



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



Revision	Description	Date
1	First Issue	3/2/19

LANDARB SOLUTIONS

Client:
Dorchester

Project:
Upper Heyford - Parcel 8A

Description:
Tree Survey and Constraints Plan

Status:
For Planning

Scale:
1:200 @A1

Job Number:
LAS 42

Drawn I Checked
DP MP

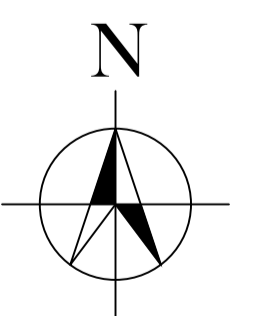
Date:
03/02/2019

Revision:
03

APPENDIX 3: PHASE 8A PROPOSED PLANNING LAYOUT



REVISIONS:



PLANNING LAYOUT

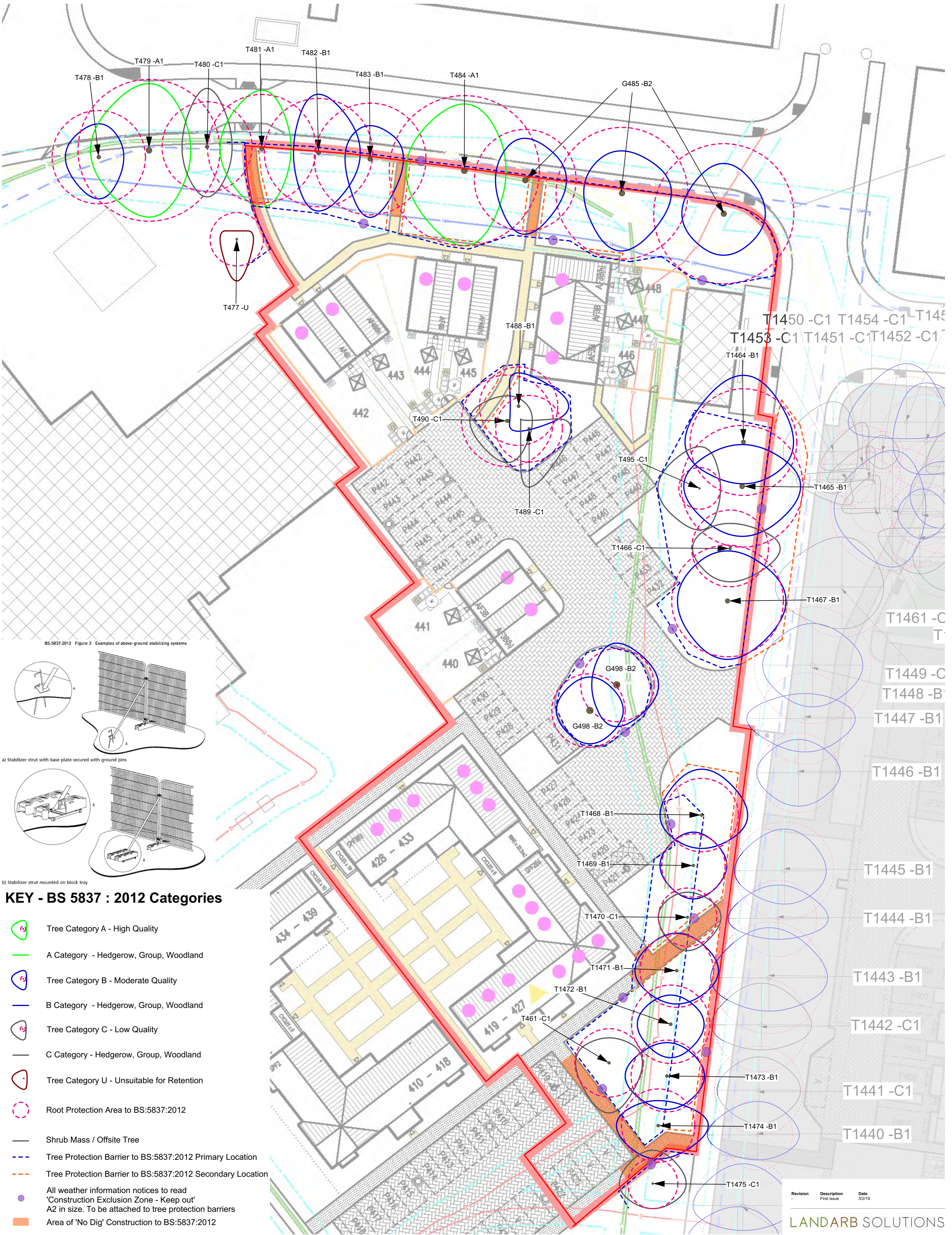
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DATE: DECEMBER 2018
DRAWN: DGK

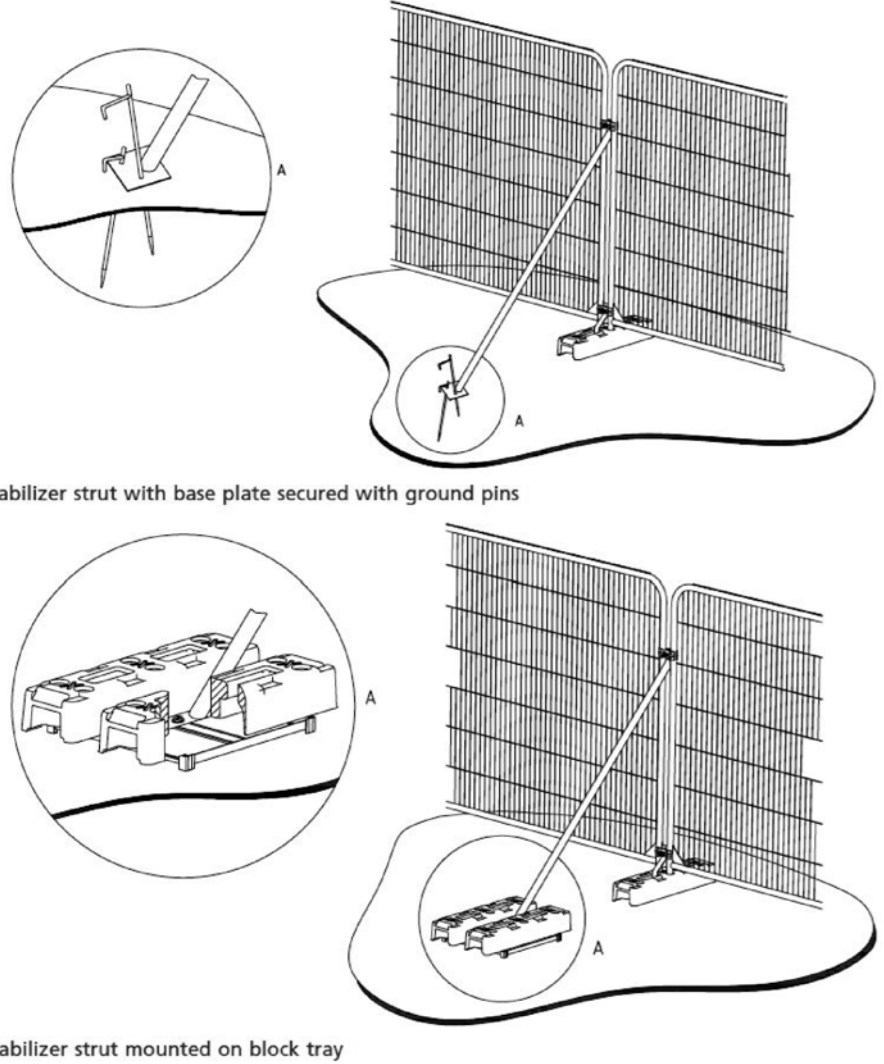
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DRAWING NO: 0521-PH8A-102



APPENDIX 4: PHASE 8A TREE RETENTION/REMOVAL AND PROTECTION PLAN



BS:5837:2012 Figure 3 Examples of above-ground stabilizing systems



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 Protection Barrier to BS:5837:2012 Primary Location
- Tree Protection Barrier to BS:5837:2012 Secondary Location
- All weather information notices to read 'Construction Exclusion Zone - Keep out' A2 in size. To be attached to tree protection barriers
- Area of 'No Dig' Construction to BS:5837:2012

Revision	Description First Issue	Date
32/19		

LANDARB SOLUTIONS

Client:
Dorchester
Project:
Upper Heyford - Parcel 8A
Description:
Tree Retention Loss and Protection Plan

Status:
For Planning
Scale:
1:200 @A1
Job Number:
LAS 42
Drawn I Checked
DP MP
Drawing Number:
04
Date:
03/02/2019
Revision:
-

