AMENITYTREE

ENVIRONMENTAL PLANNING CONSULTANTS

Arboricultural Impact Assessment (AIA)

Version 2

Report prepared for Views

Longsight Bowling Green

Prepared by Simon Brain

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1 Tree Protection Plan

2 Survey sheets (updated as a result of AIA)

1.0 Introduction

1.1 Instruction, Scope, Methodology, Mitigation & Limitations

1.2 My name is Simon Brain I am arboriculturist, with 25 years' experience holding the LANTRA Professional Tree Inspection certificate. I have been instructed by the client to prepare the following Arboricultural Impact Assessment for land at Longsight Bowling Green.

1.3 This Arboricultural Implications Assessment (AIA) is based on the proposed developments as shown on the Proposed Site Plan and incorporated into the Tree Protection Plans (TPP) in Appendix 1 of this report.

1.4 The assessment will be carried out in line with the recommendations in BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations* and will evaluate the direct and indirect impacts of the proposed design and where necessary recommend mitigation.

1.5 The AIA considers constraints posed above and below ground and where appropriate makes recommendations to mitigate impacts associated with development sites and retained trees.

1.6 Where specialist design, construction techniques or in areas where supervision of the works is required a Special Measure Area (SMA) has been shown on the TPP for the study areas.

1.7 Below ground constraints are influenced by the root protection area and are determined in line with the recommendations set out in BS 5837:2012. These recommendations quantify the root protection area based on a measured stem diameter in accordance with Annex C, and the root protection area determined from Annex D.

1.8 It is important to understand that when considering the Root Protection Area (RPA) with regards to the circular plot as delineated on the TPP that

a number of site factors can influence root morphology and disposition of tree roots.

1.9 Above ground constraints are considered above and below ground and in line with the recommendations in BS 5837:2012 to include; shade, dominance, current and future crown spread as well as the ultimate height of those retained trees.

1.10 Impacts associated with development sites and retained trees can be associated with single or multiple site operations that can subject trees to multiple impacts *(root severance, compaction, loss of photosynthetic material),* where this is applicable it will be highlighted in the AIA.

1.11 The mitigation measures proposed in this report are essential to ensure that trees marked for retention are adequately protected during the period of post/preconstruction.

2.0 Arboricultural Impact Assessment

2.1 Area for proposed development

2.2 The proposed development has been embedded within the Tree Constraints Plan which indicates the following developments associated with this site to have an arboricultural impact:

- New surfacing for bin stores in the vicinity of retained trees
- Installation of proposed development infrastructure requiring tree removal

2.3 The arboricultural impacts of these items have been identified below.

2.3.1 • New surfacing for bin stores in the vicinity of retained trees.

A driveway in the RPA of T8 is within a designated Special Measure Area (SMA) and construction of this can only be proposed as 'no dig' construction if the following items can be achieved:

- A cross section of the existing and proposed ground levels is submitted for arboriculture review.
- A detailed engineer-based drawing specification of the no dig driveway is produced for arboriculture review
- The California Bearing Ratio and soil structure are acquired and have undergone arboriculture review.
- Future maintenance, water interception, pollution potential and deformation potential of the new surface is assessed.
- No walls of any kind will be acceptable in the RPA.
- A full AMS is needed when these matters have been managed to support a planning application which will detail sequencing, methods, materials, tree protections, personnel and a detailed supervisory timetable with the provision of compliance reporting at regular intervals.

These items are required as T8 is a third party tree and the information is needed to demonstrate the acceptability of the proposal.

Typical no dig construction can consists of:

- Establishment of the California Bearing Ratio of the land in question order to inform engineers of type and capacity of load bearing cellular confinement system to be used.

- Appoint and confirm engineer for design and supply of a suitable load bearing geo cellular confinement system requiring no more than 25cm of excavation for top soil preparation only.

- Driveway is constructed and finished to the agreed specifications before any other general building activity commences on site.

- The cellular confinement system shall be guaranteed by the supplier so as not to cause subsequent compaction for a period of ten years.

- Typically, a ‘no dig’ approach (based on APN12 Driveways close to trees) will be taken with the confinement system being laid directly onto the existing ground level; where local cuts and fills are required this shall be no more than 75-100mm in depth.

- Typically, a confinement system of 150mm in depth is used.

- Edge restraints shall be required, and they shall be secured by means of small metal ties approximately 50cm+ long at appropriate intervals.

- The cellular confinement system shall be laid by pedestrian means under the consultant’s on-site supervision. Small excavators can be used on the surface when it is newly laid and when ground boarding is provided.

- The system shall be filled with granular material that retains porosity and maintain a porous finished wearing surface such as pea gravel or resin bonded gravel. Proprietary surface coverings that may be suitable for some surfaces include Flexipave and Permadrive.

- All surface construction when complete shall be covered in on ground boarding throughout the SMA for the remainder of the build period.

- All surface construction if acceptable will be located with Special Measure Areas (SMA) which is designated on the Tree Protections Plan (TPP). All construction shall be supervised on site by a qualified arboricultural consultant whom shall record all progress and oversee all new surface installations in the RPA's affected and document the installation in the event of any future third party claims.

NOTE: The chronological order of events shall be as follows.

Following installation of the CEZ access is installed under supervision to no dig specification provided and all new surfacing's are protected by on ground boarding such as scaffold boards prior to any other construction activity commencing in the vicinity. It is however critical that ground boarding is proportionate to the load anticipated to be exerted on the surface. Therefore, in areas of proposed driveway where vehicular (car) and pedestrian traffic is anticipated during / post construction scaffold boarding is enough above the newly laid surface. However, heavier construction related deliveries may be required and ground boarding shall be upgraded to bog mat or similar which must bear the anticipated load. Both types of on ground boarding are required for the construction duration.

2.3.2 Installation of proposed development requires the removal of the following tree references:

- T4,5,6,7,9,10,11,12,13,14,15 and 16.

T6. The current position of the development would require approximately 45% of the RPA to be removed including structural roots responsible for safety and therefore cannot be retained.

3.0 Tree Preservation Orders

3.1 I have not contacted the local planning authority to determine whether any Tree Preservation Order (TPO) covers the tree, nor to determine if the site is a Conservation Area. Before undertaking any work to the tree, it would be advisable to check whether either of these planning controls are in operation; if they are, it would be necessary to obtain consent (or in the case of a Conservation Area give six weeks' notice of intent) before undertaking any such work.

4.0 Trees to be removed and retained

4.1 The following trees have been identified for removal due to their condition (Category U): None

4.2 A total of twelve trees are identified to be removed for the direct impact of development as listed in section 2.3.2.

4.3 The remaining trees are due to be retained and protected as outlined on the TPP by methodology needed in an AMS.

5.0 Root Protection Areas (RPA)-modifications

5.1 Root Protection Areas have been plotted in line with the guidance given in BS 5837: 2012 where ground constraints have had or are likely to effect the root morphology of trees e.g. where underground utilities or building foundations have obstructed root growth this shall require formal confirmation by excavation to establish presence or absence of

significant rooting material. No RPA modifications have been shown for this scheme.

6.0 Post construction considerations

6.1 Not applicable due to lack of tree cover within or in the margins of the site.

7.0 Tree pruning to facilitate development and future pruning

7.1 There are no requirements for minor levels of tree pruning to facilitate the proposed development.

8.0 New surfacing and ground level modifications

8.1 New surfacing is required in RPA of trees. Refer to section 2.3.1 and appendix 3 for details of construction.

9.0 Construction Exclusion Zones and Special Measure Areas

9.1 The Construction Exclusion Zone has been shown as a black fenced polyline on the TPP in Appendix 1 and shall be constructed using heras panels and rubber feet securely staked to the ground.

9.2 The CEZ is purposefully located within proposed new surfacing near trees in order to prompt site supervision and wider protective measures when new surfacing is installed. The CEZ must be installed as signed off as fit for purpose before any other works commence on site

9.3 A single SMA applies to T8 for no dig surfacing.

10.0 Site supervision and monitoring

10.1 Where a tree has been delineated on the TPP as requiring retention there will be a requirement to oversee construction operations in these areas in order to ensure that no damage occurs to the retained tree.

10.2 To ensure that there is an auditable system of site monitoring, reports will be compiled by an appointed arborist and following site visits they issued to the site manager and design team, copies of which will be available on site at all times for inspection by a Council planning/Tree officer.

11.0 Installation of below ground infrastructure

11.1 No detailed plans have been provided specifying the location of site utilities

11.2 Specialist advice with regards to the position of utilities will need to be sought from engineers and must be reviewed by the consulting arboriculturist prior to commencement on site.

11.3 The usual construction techniques for installing site utilities within an RPA will be unacceptable due to the level of root severance that would occur. The impact of root severance will have a detrimental effect on tree health as trees require a healthy root system in order to maintain water and mineral uptake from the soil. Trees need to maintain a balance between shoot and root growth to ensure that the resources supplied by each can meet the demand of the other. Severance of tree roots caused by trenching can lead to reduced water uptake which in turn impacts on the trees ability to supply water to the canopy, resulting in desiccation. A further complication associated with root severance can be problems associated with tree stability. The tree relies on an intact root system in order to maintain stability; this stability will be compromised by root severance.

11.4 The use of trenchless techniques can be acceptable provided the depth of service run that is excavated is below the anticipated root depth.

12.0 Design change requirements

12.1 Design change requirements are not considered necessary.

13.0 Amenity Value

There are no significant arboricultural assets that currently confer significant visual amenity to the public realm. The site and the provision of new trees on the road frontages will lead to an improvement in visual amenity conferred by trees in the wider landscape.

It is considered that the successful establishment of replacement trees referred shall mean an improvement in the long term wider visual public amenity associated with the trees on these sites.

14.0 Concluding statement

14.1 The proposed scheme was assessed in line with guidance provided in BS 5837:2012 *Trees in relation to design demolition and construction – Recommendations* with the aim to achieve a harmonious relationship between trees and structures that can be sustained in the long term.

14.2 It is my professional opinion as an arboriculturist that a harmonious balance of retained and removed trees that could be considered acceptable by the LPA has been achieved given that landscaping proposals are present that mitigate those trees present on site. The position of new tree planting confers visual amenity into the wider landscape.

Appendix 1 Tree Protection Plan



TREE PROTECTION PLAN

Retention value key

(RETENTION VALUE A)

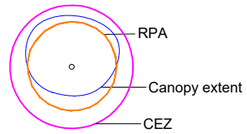
(RETENTION VALUE B)

(RETENTION VALUE C)

(RETENTION VALUE U)

Root Protection Areas (RPA) & Construction Exclusion Zones (CEZ)

Root Protection Areas (RPA's) have been identified and are based on BS5837:2012. There is no need for CEZ as the retained RPA are located off site and unaffected



Special Measure Areas (SMA)

Special Measure Areas (SMA's) have been identified for construction in these areas and they have been shown as detailed below.

SMA. New permanent hard surfacing proposed. All surfacing to be no dig and installed under arboricultural supervision.

Client:
Views

Project:
Longsight Cricket Club

Detail:
TREE PROTECTIONS PLAN - Overview

Drawn By:	Date:	Scale:
PS	18.09.2024	1:500@A3

Drg No:	Revision:
TR-01	V1

Tree No.	latin name	Life Stage	Diameter(mm)	Height(m) / Crown Height (m)	North(m)	South(m)	East(m)	West(m)	Category	Estimated Remaining Life Expectancy (yrs)	Comments	Recommendations	RPR(m)	RPA(m)
T1	Alnus glutinosa (Common Alder)	SM	202	7(1.5)	4	2	3	2	C1	40+		Unaffected and off site	2.42	18.4
T2	Acer pseudoplatanus (Sycamore)	SM	160	7(2)	3	3	3	3	C1	40+	Off site tree, dbh and crown spread estimated.	Unaffected and off site	1.92	11.58
T3	Fraxinus excelsior (Ash)	SM	180	7(2)	3	3	3	3	C1	40+		Unaffected and off site	2.16	14.66
T4	Prunus (Prunus species)	EM	397	12(2)	4	5	6	4	B1	20+		Remove for development	4.76	71.19
T5	Prunus (Prunus species)	SM	200	4(2)	2	3	7	1	C1	20+	Poor shape & form. Leaning East.	Remove for development	2.4	18.1
T6	Prunus (Prunus species)	M	550	14(2)	2	4	7	6	A1	40+	Off site tree, dbh and crown spread estimated.		6.6	136.87
T7	Fraxinus excelsior (Ash)	EM	490	15(1.5)	6	4	5	3	A1	40+		Remove for development	5.88	108.63
T8	Acer pseudoplatanus (Sycamore)	EM	300	12(2)	4	3	2	4	B1	40+	Off site tree, dbh and crown spread estimated.	Off site, third party tree. Could be retained using SMA for no dig in bin store areas	3.6	40.72
T9	Salix caprea (Goat Willow)	SM	142	3(1)	4	1	1	1	C1	20+		Remove for development	1.7	9.08
T10	Corylus colurna (Turkish Hazel)	Y	80	2(0.5)	1	1	1	1	B3	20+		Remove for development	0.96	2.9
T11	Alnus glutinosa (Common Alder)	Y	80	2(0.5)	1	1	1	1	C1	40+		Remove for development	0.96	2.9
T12	Alnus glutinosa (Common Alder)	Y	80	1.6(0.2)	1	1	1	1	C1	40+		Remove for development	0.96	2.9
T13	Alnus glutinosa (Common Alder)	Y	214	4(0.2)	2	1	1	1	C1	40+		Remove for development	2.57	20.75
T14	Alnus glutinosa (Common Alder)	Y	177	3(0.5)	2	2	2	2	C1	40+		Remove for development	2.12	14.12
T15	Alnus glutinosa (Common Alder)	Y	110	3(0.2)	1	1	1	1	C1	40+		Remove for development	1.32	5.47
T16	Alnus glutinosa (Common Alder)	Y	130	2(0.4)	1	1	1	1	C1	40+		Remove for development	1.56	7.65
T17	Salix caprea (Goat Willow)	Y	198	4(0.5)	2	2	2	2	C1	20+	Off site tree, dbh and crown spread estimated.	Unaffected and off site	2.38	17.8
T18	Pyrus (Pear)	Y	100	4(1.6)	2	2	2	2	C1	40+	Off site tree, dbh and crown spread estimated.	Unaffected and off site	1.2	4.52