

Arboricultural Impact Assessment

Land East of Tye Lane, Walberton. December 2020

This short arboricultural impact assessment (AIA) has been prepared by Barton Hyett Associates on behalf of CSA Environmental for Vistry Southeast., in relation to the land to the east of Tye Lane, Walberton (hereafter the 'Site'). It considers the impacts to trees of the proposal to construct a new vehicular access point from Tye Lane where an emergency access has already been approved.

1. Introduction

- 1.1. Arun District Council have granted outline planning consent (ref: WA/44/17/OUT) for the construction of 175 new dwellings with associated car parking, access roads and areas of public open space on the land east of Tye Lane, Walberton (the 'site'). A reserved matters application (ref: WA/95/18/RES) for the detailed layout of the site was approved in April 2019.
- 1.2. The approved development proposal included the construction of a new vehicular access point off Tye Lane which would serve as the emergency access. Since that time it has been realised that the new A27 road will cross the northern part of the site, thereby rendering the proposed main vehicle access point into the new site unsuitable.
- 1.3. Therefore, the approved emergency access point from Tye Lane is now proposed to be upgraded to form the principal vehicle access. Trees in this area have already been removed under the previous consent, but the widening of the access point will require some further tree removals.

2. The Amended Access Proposals

- 2.1. The updated access strategy involves a simple priority junction with Tye Lane on the west boundary. The design is shown on the submitted access plan 'ACE Drawing 183248-003'.
- 2.2. The proposed design incorporates a 5.5m wide carriageway, with a 7m radii kerb on both sides.
- 2.3. A new footway is also incorporated, on the south side of the access and along the east side of Tye Lane. This footway will connect with at the southern end of Tye Lane and The Street.

- 2.4. In order to provide the new footway, the road is slightly narrowed to between 5-5.6m. The footway is 1.5m wide at the access, reducing to a minimum of 1m.
- 2.5. Visibility splays have been calculated as a 2.4m x 54m looking north, and 2.4m x 60m looking south.

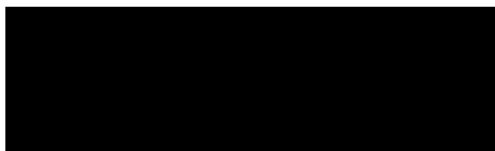
3. Impacts Of The Amended Access Proposal to Trees

- 3.1. The tree survey schedule and plan prepared in 2018 identified a high-quality oak tree (T23) and moderate quality mixed group of boundary trees (G11) on the western boundary of the site adjacent to Tye Lane.
- 3.2. G11 consists of mainly semi-mature holly, laurel, holm oak, elder and sycamore. Some of the trees within the group were showing signs of ill-health/stress during the survey so individually would be classified as category C trees, but the cohesive canopy and natural screen function that the linear belt provides led the surveyor to categorise the group as 'moderate' quality (category B) using the recommended approach described in BS5837.
- 3.3. The widening of the access will require the removal of some additional trees within G11. Reference to trees recorded in the topographic survey plan within the area of G11 suggests that approximately 5 additional trees will need to be removed.
- 3.4. The new footway will pass through the west side of the calculated circular RPA of oak T23, which has an area of 349 square metres. The area of the new path will pass through 25.5 square metres, so approximately 7% of the total RPA. However, more important than the overall level of incursion within the RPA is the consideration the existing and proposed ground conditions, and how they might affect tree roots and the quality of the soil environment.
- 3.5. A drainage ditch currently runs roughly north-south between the road edge and the trunk of T23. This ditch has recently been cleared of vegetation, as prescribed via an arboricultural method statement provided by BHA. The change in ground levels along the ditch may have had some influence on the distribution of oak tree roots, but this is not known for definite. It may be the case that the increased soil moisture around the ditch may have attracted tree roots. However, it may also be the case that cyclical de-silting and ditch maintenance works using an excavator may have severed tree roots in the bottom of the ditch.

- 3.6. In my opinion, it is likely that oak tree roots would be prevalent on the east side of the ditch, but much less so on the west (roadside) of the ditch where the footway is to be constructed
- 3.7. Drainage along the road edge is to be via an under-carriage piped culvert, so the ditch will no longer be required to function as a land-drainage feature. The ditch is therefore to be backfilled. This should be done using a mixture of rock, stone and sandy soil in order to maintain water percolation and oxygen availability in the soil. Topsoil should not be used as this can turn in to an anaerobic sludge at depth.
- 3.8. The low branches of the oak tree on the west side are currently 4 m above the ground level where the footway will be constructed. Therefore, no pruning is required to achieve the required visibility splay or allow pedestrian access.

4. Conclusions

- 4.1. The amended access proposal from Tye Lane will require the removal of a small number of further trees from within G11. A gap in the linear belt of trees has already been created as per the approved emergency access, so the widening of that gap will have a minor impact on the visual aesthetic and character of the area.
- 4.2. The proposed footway is within a small portion of the RPA of the high-quality oak tree T23. It is my opinion that construction of the surface will have a minor impact due to its location on the far side of the ditch. Back-filling the ditch with free draining material will also provide some betterment of the overall rooting volume for the tree.
- 4.3. No pruning of the oak tree is required.
- 4.4. An amended tree protection plan is provided below, showing the amended locations for vertical tree protection barriers to create exclusion zones around the trees to be retained. Provided these protection measures are implemented, I believe the proposals will have a minor impact only on the trees.

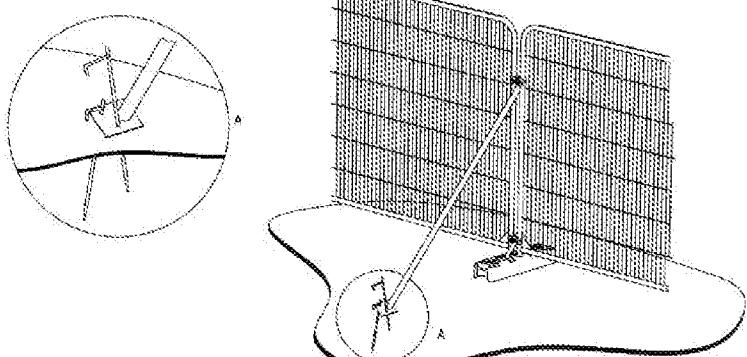


Paul Barton MSc, BSc (hons), MArborA, RCarborA

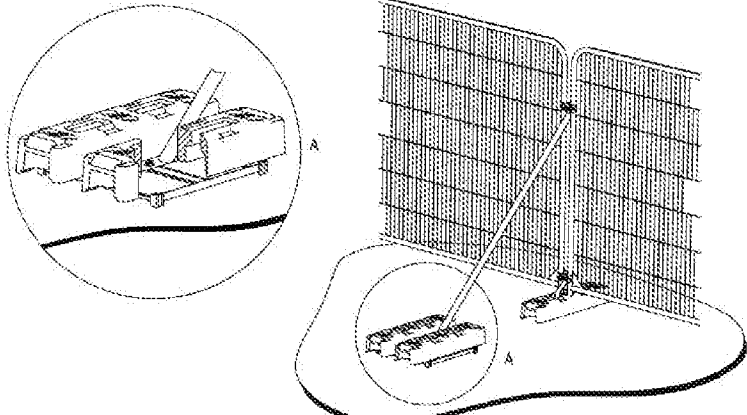
11th December 2020

Tree No.	Species	RPA Radius	MRPA Area	M Category
T1	Hornbeam	3.8	46	B2
T2	Rose maple	2.4	12	C2
T3	Rowan	1.8	10	C2
T4	Red Oak	4.3	69	B1
T5	Poplar	5.4	82	C2
T6	Poplar	4.2	55	C2
T7	Red oak	4.5	65	B1
T8	Cypress	1.3	5	C2
T9	Lime	4.7	89	B2
T10	Cherry plum (purple leaf)	2.4	18	B2
T11	Cherry	2.4	18	B2
T12	Sweet chestnut	4.2	55	B1
T13	Cherry	2.6	22	B2
T14	Pth oak	2.2	15	B1
T15	Whitebeam	2.3	16	B2
T16	Norway maple	2.4	18	B2
T17	Larch	2	13	C2
T18	Poplar	4.8	72	C2
T19	English oak	7.8	191	B1
T20	Field maple	8	113	B1
T21	Field maple	4.8	72	B2
T22	Sycamore	4.2	55	B2
T23	Holm oak	10.6	350	A1
T24	Montezey Pine	9	235	A2
T25	Lime	7.8	191	A1
T26	English oak	2.3	16	C2
T27	Field maple	2.3	16	C2
T28	English oak	14	819	A2
T29	Copper beech	4.8	72	B2
T30	Grey poplar	6.8	137	C2
T31	Lombardy poplar	3.8	46	C2
T32	Norway maple	4.8	72	B2
T33	English oak	2.4	18	B1
T34	Grey Poplar	3.8	41	C1
T35	Grey poplar	4.2	55	C2
T36	English oak	3	28	B2
T37	Lombardy poplar	5.4	82	B2
T38	Horse chestnut	12.8	518	A1
T39	English oak	1.7	9	A2
T40	English oak	15	707	A2
T41	Weeping willow	2.4	18	C2
T42	Silver birch	4.2	55	B1
G1	Cypress, oak, maple	2.4	18	C2
G2	Sycamore, ash	4.5	65	B2
G3	Hawthorn, hazel, elder	1.8	10	B2
G4	Sycamore	4.3	69	B2
G5	Sycamore	4.5	65	B2
G6	Hawthorn, elder	1.8	10	C2
G7	Lombardy poplar	4.8	72	B2
G8	Cypress	1.8	10	C2
G9	White willow	7.2	183	B2
G10	Poplar	4.2	55	C2
G11	Holly, laurel, holm oak, elder, sycamore	3.8	41	B2
G12	Sycamore, ash, hawthorn	4.2	55	B2
G13	Poplar, goat willow, holly	5.4	82	C2
G14	English elm	3	28	C2
G15	Field maple	3.3	35	B2
G16	Lombardy poplar	3.8	41	B2
G17	Lime oak	4.2	55	B2
G18	Hawthorn, elm	2.2	15	C2
G19	Grey Poplar, hybrid poplar, lombardy poplar	8.2	209	C2
G20	Lombardy poplar	3.8	46	C2
G21	Cherry	3	28	C2
G22	Norway maple, sycamore, poplar, ash, rowan	4.8	72	B2
G23	English elm, hawthorn	1.3	5	C2
H1	English elm, hawthorn	1.3	5	C2
H2	Holly	1.5	7	B2
H3	Hawthorn	0.8	1	B2
H4	Hawthorn, ash, elder	1.1	4	C2

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



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



Tree Protection Barrier - Barrier to be erected prior to the commencement of works on site and not to be altered or removed until works are complete (cross check with specific requirements of any relevant planning conditions)

KEY	
	Tree Category A - High Quality
	Tree Category B - Moderate Quality
	Tree Category C - Low Quality
	Tree Category U - Unsuitable for Retention
	Tree Category H - Hedge/Group, Woodland
	Tree Category R - Hedge/Group, Woodland
	Tree Category S - Hedge/Group, Woodland
	Tree Category T - Hedge/Group, Woodland
	Tree Category W - Hedge/Group, Woodland
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GRID NORTH

Localised area of small trees an vegetation along east side of Tye Lane to be removed as necessary to allow maintenance and enhancement of drainage ditch - as required by Arun DC Drainage Officer.

Area of trees consented for removal for emergency access/cycle link.

New footway constructed west of existing ditch, which will be backfilled as drainage altered via a piped culvert under the road.

TIE INTO EXISTING CARRIAGEWAY EDGE AS DEMARCATED BY TOPOGRAPHICAL SURVEY (DASHED LINE)

5.00m

EXISTING FOOTWAY

5.60m

12.5m

0 5 10 15 20 25
Meters

PROJECT TITLE

Land East of Tye Lane, Walberton (C.2686)

DRAWING TITLE

Tree Retention/Removal & Protection Plan - Access Road

SCALE

1:500 @ A1

DRAWING NUMBER

BHA_401_03

DRAWN BY

DV

APPROVED BY

PB

REVISION

SHEET

10/12/2020

LAYOUT USED WITHIN DRAWING

183348 - 002 Proposed Access Improvements - Tye Lane & Aikford Park Road

CLIENT

Linden Homes South

COORDINATE SYSTEM / DATUM

British National Grid / Newlyn Datum (AOD)

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Where trees are considered to be subject to Tree Preservation Order more detailed checks will be required in some instances in order to confirm exact boundaries for the areas covered by each TPO

Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice