

Arboricultural Impact Assessment

Linda, The Street, Aylmerton

TE-269.1



63 Helena Road,

Norwich, Norfolk, NR2 3BY

Registered in England and Wales number 4326462259

Telephone: [REDACTED]

Email: [REDACTED]

Website: www.norwich-treesurgeons.co.uk

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Site address	Linda, The Street, Aylmerton, Norwich, NR11 8AA
Grid reference	TG 18226 39711
Report compiled by	Larry Liptrot BSc (Hons) FdSc
Client	Mr. M. Bacon.
Date	26 th July 2020



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Executive Summary

Site Address	Linda, The Street, Aylmerton, Norwich, NR11 8AA
Grid Reference	TG 18226 39711
Proposed Development	The development proposal is the construction of two new residential properties and a driveway with changed access.
Results	The site survey identified a total of 8 trees and 3 groups of trees on/adjacent to the site. These included 2 Category B tree of moderate quality, 6 Category C trees of low quality and 3 Category C group of trees of low quality.
Conclusions and Recommendations	<p>No trees are recommended for removal due to the development proposals.</p> <p>It is recommended that all works follow an Arboricultural Method Statement, which should include the provision of temporary tree protection fencing.</p>



1. Introduction

Instruction

Talking Elm Tree Services have been instructed by Mr M. Bacon, to undertake an Arboricultural Impact Assessment of the land at Linda, The Street, Aylmerton, Norwich, NR11 8AA, hereafter referred to as 'the site'.

1.1. The purpose of the report is to:

- Assess the quality of the trees on and immediately adjacent to the site, in accordance with BS5837: 2012 – Trees in Relation to Design, Demolition and Construction: Recommendations (hereafter referred to as BS5837: 2012).
- Identify trees suitable for retention and for removal due to the proposed development.
- Prescribe tree protection measures to ensure that retained trees thrive after the development has been completed.
- Prescribe arboricultural recommendations for the long-term management of trees on the site.
- To assess the site for its suitability for mitigation planting, and to specify planting requirements.



Site Details

- 1.2. The site is located at grid reference TG 18226 39711 and is accessed from the street.
- 1.3. The site is bordered by residential properties to the east, west and south. The site borders agricultural land to the north. The topography of the site is relatively flat.

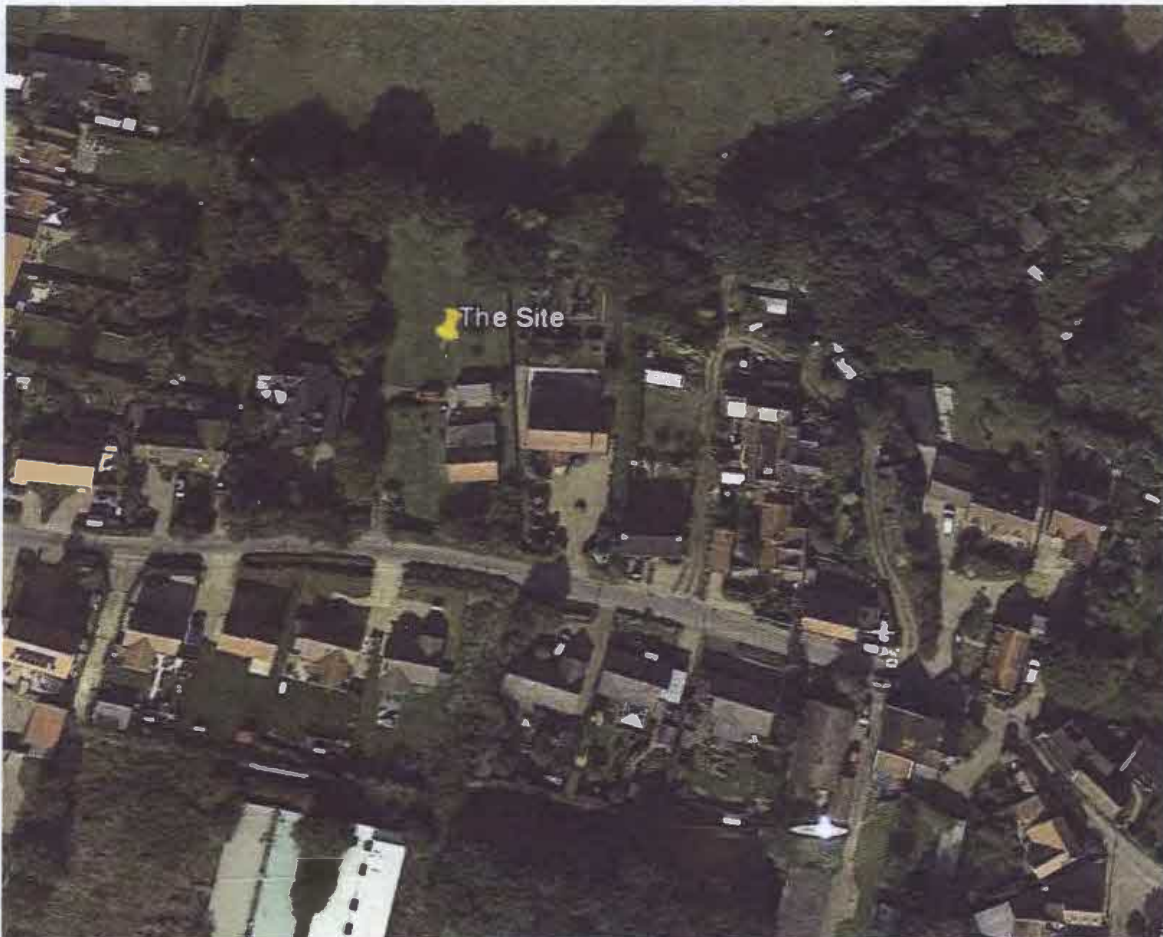


Figure 1.1. Aerial imagery of site and surrounding area (Google Earth Pro, 2020)

Proposed Development

- 1.4. The development proposal is the construction of two new residential properties and a driveway with changed access.



2. Methods

- 2.1. The local council was consulted to determine if any trees on the site and immediately adjacent to the site are protected by Tree Preservation Orders (TPOs) and/or are within Conservation Areas. Cranfield (2020) was consulted as to the soil type of the surrounding area.
- 2.2. The site survey was carried out on 17th July 2020. The survey was carried out by Larry Liptrot, an experienced arboricultural consultant, who holds an FdSc in Arboriculture, a BSc (Hons) in Ecology and has been awarded the Lantra Professional Tree Inspection Certificate.
- 2.3. All trees on site were inspected from ground level, using the Visual Tree Assessment (VTA) method (Mattheck *et al*, 2015). Tree locations were plotted, and tree heights and crown clearance heights were measured using a clinometer. Canopy spread was paced out by the consultant. The diameter at breast height (DBH) of trees was recorded by measuring the circumference of tree stems at an approximate height of 1.5m.
- 2.4. Any visible structural and/or physiological defects of trees were recorded; however, no advanced decay analysis or aerial inspection techniques were carried out, and the tree inspection does not constitute a full tree safety assessment.
- 2.5. The retention value of all trees was classified as A, B, C or U, using the criteria shown in Table 2.1.

Table 2.1. BS5837 Cascade Chart (adapted from British Standards, 2012)

Category	Definition	Retention
Category A	Trees of high quality with an estimated remaining life expectancy of at least 40 years; trees that are particularly good examples of their species, especially if rare or unusual.	Highly desirable
Category B	Trees of moderate quality with an estimated remaining life expectancy of at least 20 years; trees lacking the special quality to merit category A designation.	Desirable
Category C	Trees of low quality with an estimated remaining contribution of at least 10 years, or trees with a stem diameter below 150mm; unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	Feasible, but can be removed if posing a constraint to development
Category U	Trees that have serious, irremediable, structural and/or physiological defects, including those that will become unviable after removal of other category U trees.	Unfeasible



3. Results

Desk Based Study

- 3.1. A telephone conversation on the 27/07/2020 with North Norfolk district council, confirmed that the site is not covered by any Tree Preservation Orders (TPOs) and is currently not within a Conservation Area (CA).
- 3.2. Cranfield (2020) states that the surrounding area consists of freely draining, slightly acid and loamy soils.

Tree Population Assessment

- 3.3. The site survey identified a total of 8 individual trees and 3 group of trees with the potential to be affected by the development proposals.
- 3.4. The trees on the site include 2 Category B tree of moderate quality, 6 Category C trees of low quality and 3 Category C groups of trees of low quality.

Category	Description	Tree/group numbers	Totals
A	Trees of high quality which should where possible be retained throughout any proposed development	-	-
B	Trees of moderate quality which should where possible be retained throughout any proposed development	T4 and T5	2 Trees
C	Trees of low quality which should not be considered a constraint to development	G1, G2, G3, T1, T2, T3, T6, T7 and T8	6 Trees & 3 Groups
U	Trees which should be removed for sound management reasons, regardless of proposals	-	-
Total:			8 Trees & 3 Groups

The tree species on and adjacent to the site include: Apple *Malus sp*, Ash *Fraxinus excelsior*, Beech *fagus sylvatica*, Cherry Laurel *Prunus laurocerasus*, Cherry plum *Prunus cerasifera*, Dogwood *Cornus sp*, English Oak *Quervus robur*, Hazel *Corylus avellana*, Holly *Ilex aquifolium*, Juniper *Juniperus sp*, Laburnum *Laburnum anagyroides*, Leyland cypress *Cupressus x leylandii*, Lilac *Syringa vulgaris*, Monterey cyprus *Cupressus macrocarpa*, Privet *Lugustrum vulgare*, Pear *Pyrus sp*, Silver birch *Betula pendula*, Sycamore *Acer pseudoplatanus* and Yew *Taxus baccata*.



4. IMPACT ASSESSMENT

Tree Removals due to Development

Two groups of Category C trees will require removal to facilitate the development proposals.

Table 4.1 Summary of trees necessitating removal due to development

CATEGORY	TREE/GROUP NUMBERS	TOTALS
A	-	0
B	-	0
C	G1 & G2	2
U	-	0

Retained trees

- 4.1. T1 is twin stemmed with a weak V shaped union and has a large decay pocket below this union; the extent of the decay is over 50% of the heartwood in this area. Due to safety concerns, the tree requires either crown reduction or further investigation using a resistograph.
- 4.2. Retention the remaining trees on the site is feasible, provided that adequate tree protection measures and safe working practices are adopted during construction works.

Post Development Pressure upon trees

- 4.3. It is not anticipated that there will be any significant post development pressure upon the remaining retained trees on site.



5. RECOMMENDATIONS

Tree Removals

- 5.1. All tree works should be carried out by a suitably qualified and fully insured arborist who is able to comply with BS3998: 2010 – Tree Works: Recommendations.
- 5.2. At the time of writing trees recommended for removal are not afforded protection by TPOs. This may be subject to change, and any legal designations affecting trees should be verified with the local authority prior to works commencing. Killing or damaging a protected tree is a criminal offence which can result in an unlimited fine.

Arboricultural Method Statement

- 5.3. To ensure that all trees scheduled for retention survive the proposed development and thrive upon its completion, all works should follow an Arboricultural Method Statement (AMS). This should include the specification of temporary tree protection fencing during development works, which should be detailed in a Tree Planting Plan.
- 5.4. The AMS should account for any further change to the scheme, particularly the provision of any below ground utilities which have the potential to impact upon tree roots.



6. References

British Standards (2010). *BS3998: 2010 – Tree Works: Recommendations*

British Standards (2012). *BS5837: 2012 - Trees in Relation to Design, Demolition and Construction: Recommendations*. London: British Standards Institute

British Standards (2014). *BS8545: 2014 – Trees: from Nursery to Independence in the Landscape*. London: British Standards Institute

Cranfield (2020). *Interactive Soilscape Viewer* [online]. Available at: >www.landis.org.uk< [accessed 2019]

Google Earth Pro (2020). *Google Earth* [online]. Available at: >www.google.co.uk/earth< [accessed 2019]

Johnson, O., More, D. (2004). *Collins Tree Guide*. London: HarperCollins

Mattheck, C., Bethge, K., Weber, K. (2015). *The Body Language of Trees*. Karlsruhe (Germany). The Karlsruhe Research Institute



Appendices

Appendix A: Tree Survey Schedule

A plan of the tree locations can be viewed in Appendix B: Tree Retention Plan.

Key			
Species	Common name following Johnson & More (2004)	Age	EM – Early mature; tree in 2/3 of estimated lifespan
H	Height, to nearest 0.5 metres		M – Mature; tree in 3/3 of estimated lifespan
CC	Height of crown clearance, to nearest 0.5 metres		OM – Over mature; tree that has exceeded its natural life span
No of stems	Number of stems bifurcating below 1.5 metres		V – Veteran tree
DBH	Diameter at breast height (1.5m), to nearest 10 millimetres	RPA	Root protection area, in metres squared
Crown spread	To nearest 0.5m	RPR	Root protection radius, in metres
Age	Y – Young sapling/newly planted tree	SULE	Safe useful life expectancy of tree, in years
	SM – Semi-mature; tree in 1/3 of estimated lifespan	Category	See B55837 cascade chart (Table 2.1)
			AV Average

Tree No.	Species	Height (m)	Crown clearance (m)	No. of stems	DBH (mm)	Crown Spread				Age	Comments	RPA (m2)	RPR(m)	SULE	Category
						N	E	S	W						
T1	English oak <i>Quercus robur</i>	14	7	1	880	7	6	6	7	M	Major deadwood throughout crown. Bifurcates at 2m with weak V shaped union. Extensive decay cavity at 1m south.	350	10.6	10+	C1
T2	Leyland Cypress <i>Cupressus x leylandii</i>	7	4	1	320	1	2	3	2	SM	Limited arboricultural merit. Previously crown raised to 4m, pruning cuts not in accordance with bs3998.	46	3.8	10+	C1
T3	Holly <i>Ilex aquifolium</i>	6	2	2	310 179	3	2	1	2	SM	Limited arboricultural merit.	57	4.2	10+	C1

Tree No.	Species	Height (m)	Crown clearance (m)	No. of stems	DBH (mm)	Crown Spread				Age	Comments	RPA (m2)	RPR(m)	SULE	Category
						N	E	S	W						
T4	English oak <i>Quercus robur</i>	11	5	1	520	7	4	7	5	M	Tree shows good form and vitality. Some minor deadwood present in crown. Signs of ground level change with hidden buttress roots.	122	6.2	20+	B1
T5	English oak <i>Quercus robur</i>	13	3	2	570 490	6	5	6	8	M	Bifurcates at 1m with v shaped union and supportive regrowth. Major deadwood present in lower crown.	256	9.0	20+	B1
T6	Corsican pine <i>Pinus nigra</i>	12	2	1	490	1	3	4	3	OM	Poor form, with lean to the south, due to occlusion by T5. Major deadwood present in crown.	109	5.9	10+	C1
T7	Malus sp	5.5	1	1	270	4	3	3	2	OM	Poor pruning wounds on main stem from removal of half the crown.	33	3.2	10+	C1
T8	Red Norway maple <i>Acer platanoides</i> 'Royal red'	5.5	1	1	340	4	4	3	3	SM	Previously pollarded. Limited arboricultural merit.	52	4.1	10+	C1
G1	Privet	2 average	-	-	10 average	-	-	-	-	Y-SM	Limited arboricultural merit.	-	-	10+	C2



Tree No.	Species	Height (m)	Crown clearance (m)	No. of stems	DBH (mm)	Crown Spread				Age	Comments	RPA (m2)	RPR(m)	SULE	Category
						N	E	S	W						
G2	60% Privet 20% Hawthorn 10% Cotoneaster sp 10% Dogwood	2 average	-	-	20 average	-	-	-	-	Y-SM	Boundary hedge with limited arboricultural merit.	-	-	10+	C2
G3	25% Ash 25% Leyland cypress 20% Beech 10% Hawthorn 10% Cherry plum 10% Cherry laurel	6 average	-	-	100 average	-	-	-	-	Y-M	Boundary trees/ hedge. Some signs of Ash dieback within population.	-	-	10+	C2

