



ARGENT ARCHITECTS

*Tree survey to the British Standard 5837:2005 "Trees in relation to construction – recommendations"

Project: Cliffe Norton Hotel, Tenby
Inspection Date: January 2017
Ref: A3597 50 2017-02-07 Tree Survey Report
Undertaken by: Argent Architects

This report includes a Tree Survey Schedule (to be read in conjunction with reference drawing number existing A3597 51 002 & proposed A3597 53 002) that identifies the position of the trees - Root Protected Areas (RPA). Majority of the existing trees are non-deciduous and will need to be removed to accommodate the proposed hotel rear extension. The remaining (deciduous) trees to rear of No10 will not be affected but they will need to be protected from getting damaged. Proposed mitigation through appropriate planting within the new palm court & flower border, and additional planting within the existing southern border will compensate for the loss of trees.

The following precautions **MUST BE** implemented before and during the process of building works:

- 1) Care should be taken to ensure that the vertical barriers are placed outside of both the canopy and the calculated root spread to ensure that both the root system and the canopy are protected for the duration of the development:
Existing dwarf wall to raise flower border to remain in order to protect the existing root spread from impact damaged. Heras fencing on rubber feet should be erected on the top of the wall to protect the canopies from getting damaged during the building works.
- 2) Ground Protection: for pedestrian movements within the RPA, scaffolding boards should be laid on a compressible layer onto a geotextile.
- 3) Notice: should be fixed to the vertical barrier "Construction Exclusion Zone – Keep Out".
- 4) Contaminate Materials: should not be discharged within 10 metres of the tree stem.
- 5) Fires: should not be within 5 metres of foliage, branches or trunks.
- 6) Soil Surface: before the installation of new ground surfaces, existing ground cover should be killed using an appropriate herbicide. The soil surface should not be skimmed to establish new surfaces. Loose organic matter and turf should be removed carefully using hand tools. The new surface should be created above the existing ground level, using a granular fill (that does not encourage vertical gaseous diffusion) where necessary.
- 7) Excavations: should be carried out by hand this will avoid damage to the protective bark covering larger roots.
- 8) Roots: exposed should be wrapped in a dry clean Hessian material to protect from change in temperature. Roots smaller than 25mm should be pruned back to a side root with the appropriate hand tool.
- 9) Back filling: any Hessian material should be removed and existing roots should be surrounded by SHARP sand, or other loose granular fill that is considered not to be hazardous to trees, before soil or other material is back filled.

In terms of awareness, trees can cause direct damage to structures by: -

- 1) Disruption of underground services and pipelines.
- 2) Settlement problems caused from lifting of substructures and surface materials i.e paving slabs, displacement and distorting.
- 3) Structural failure of trees.

Therefore it may be worth carefully considering additional precautions to ensure future damage does not occur to the building.

- 1) Reinforcing the foundations will resist lateral thrust.
- 2) Paving surfaces etc should be laid on a flexible base to allow movement and should be laid with the intent to replace if necessary.
- 3) A root barrier system laid within the trench would encourage roots to move away from the structure.
- 4) Surface water drainage should be carefully installed and checked on completion for breakages, and drains must always be kept unobstructed to avoid water leakages, as this will encourage root growth.
- 5) General maintenance – trees should be kept pruned and trimmed to avoid overgrowth, which can cause (a) branches to fall or, and (b) the felling of a mature tree(s).
- 6) ~~Trees within the TPO: Offences relating to unauthorised pruning of trees which are subject to a Tree Preservation Order can lead to prosecution under the 1990 Town and Country Planning Act with a maximum fine of £2,500; The cutting down, uprooting or wilful destruction of a tree or topping, lopping or wilful damage to a tree in a way that is likely to destroy it can also lead to a fine of up to £20,000.~~



Fig 1 West boundary – Mature conifer trees



Fig 2 South boundary to No13 - Mature shrubs



Fig 3 South boundary to No10 – deciduous trees to remain

Tree Survey Schedule:

A3597 50 2017-01-26 TREE SURVEY AND NEW PLANTING SCHEDULE: Cliffe Norton Hotel, Tenby												
REF:	SPECIES	HEIGHT (M)	Single stem	Multi stem	CANOPY(M)	RPA(M2)	CLEARANCE (M)	AGE	CONDITION	LIFE(YRS)	GRADING	RETAINED / REMOVED / NEW
			Diameter at 1.5m mm	basal Diameter								
T01	Sycamore tree	4	200		-	-	-	M	Moderate	20 plus	B	RETAINED
T02	Sycamore tree	8	200		N3.0,E3.0,S3.0,W3.0	78.6	2	M	Moderate	20 plus	B	RETAINED
T03	Elm tree	8	300		N7.0,E7.0,S7.0,W7.0	113.1	2	M	Good	20 plus	A	REMOVED
T04	Palm tree	10		150	N2.0,E2.0,S2.0,W2.0	53.4	6	M	Good	20 plus	A	REMOVED
T05	Conifer tree	10+	400		N7.0,E7.0,S7.0,W7.0	72.4	1.5	M	Good	20 plus	B	REMOVED
T06	Conifer tree	10+	400		N7.0,E7.0,S7.0,W7.0	72.4	1.5	M	Good	20 plus	B	REMOVED
T07	Conifer tree	10+	400		N7.0,E7.0,S7.0,W7.0	72.4	1.5	M	Good	20 plus	B	REMOVED
T08	Conifer tree	10+	400		N7.0,E7.0,S7.0,W7.0	72.4	1.5	M	Good	20 plus	B	REMOVED
T09	Conifer tree	10+	400		N7.0,E7.0,S7.0,W7.0	72.4	1.5	M	Good	20 plus	B	REMOVED
T10	Conifer tree	10+	400		N7.0,E7.0,S7.0,W7.0	72.4	1.5	M	Good	20 plus	B	REMOVED
T11	Conifer tree	10+	400		N7.0,E7.0,S7.0,W7.0	72.4	1.5	M	Good	20 plus	B	REMOVED
T12	Conifer tree	10+	400		N7.0,E7.0,S7.0,W7.0	72.4	1.5	M	Good	20 plus	B	REMOVED
T13	Conifer tree	10+	400		N7.0,E7.0,S7.0,W7.0	72.4	1.5	M	Good	20 plus	B	REMOVED
T14	Group of Shrubs	3			-	-	-	M	Good	20 plus	B	REMOVED
T15	Group of Palm trees	1 to 3		100 to 150	-	-	-	Y	Good	1 TO 5	A	NEW

NOTES

Shaded rows above denotes trees and hedge have already been removed

Canopy - branch spread in 4 point compass directions (metres)

RPA - root protection area in metres squared calculated from the DBH measurement

Clearance - crown clearance above adjacent ground level

Age - Y = Young, MA = Middle Aged, M = Mature, OM = Over Mature, V = Veteran

Life - estimated remaining life in years

Grading - R = In such a condition that it would be lost in ten years and should be removed, A = High quality and value, B = Moderate quality and value

C = Low quality and value