

**MR & MRS ELLISON
HILLCREST
GREEN STREET
HOLT, WREXHAM, LL13 9JF**

**TREE REPORT AND LONG TERM
TREE MANAGEMENT
AT: -
PROPOSED DWELLING ADJACENT TO
HILLCREST, HOLT, WREXHAM**

**LINGARD STYLES LANDSCAPE ARCHITECTS
9 COLLEGE HILL
SHREWSBURY
SHROPSHIRE, SY1 1LZ**

REF 2664

MARCH 2010

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1.0 INTRODUCTION

A tree inspection was carried out on the 25 March 2010 to ascertain the condition and value of the existing trees and to provide recommendations for future tree removal and retention in respect of a proposed new dwelling. Our report contains recommendations for reducing the impact of the proposed development on the existing trees and is to be read in conjunction with Lingard Styles proposed landscape layout drawing no 2664/0310/1A .

2.0 EXISTING TREES

2.1 The development site Contains a total of 14no mature and semi mature trees and saplings in varying condition, 2no groups of mature shrubs and 2no hedges. These trees are identified in the attached schedule (appendix 1). The greater number of trees are located on the periphery of the site and some will be affected by the development proposals.

2.2 The position of the trees is indicated on the attached location plan drawing number 2664/0310/02. Specific information relating to the existing trees is recorded in the attached tree schedule and includes the following gradings: -

A	Good.	Retain at all cost
B	Medium	Retain
C	Poor	Retain if required
D	Dead	Remove from site

AGE CLASS

- Young Younger than 33% normal life expectancy
- Middle 33% - 66% life expectancy
- Mature Over 66% life expectancy
- Veteran Ancient specimen of indeterminate age

STRUCTURAL AND PHYSICAL CONDITION

- Good Minimal tree work
- Fair Some tree surgery required
- Poor Extensive tree surgery required
- Dead Includes dying and dangerous

ESTIMATED LIFE

- less than 10 years
- 10 – 20 years
- 20 – 40 years

- more than 40 years

Generally the existing trees fall within the B and C grading with 10no C grade, 2no B grade and 2no grade D. There are no grade A trees.

- 2.3 The proposed development will necessitate the removal of 6no trees. These trees are 1, 2, 5,13,14 and 16 and these are mainly poor specimens or saplings. One grade B tree will be removed.

Reasons of proposed tree removal include poor and/or distorted specimens, site construction works and the building footprint. In the case of the Apple trees to be removed these are diseased trees that have a short remaining life span. It is recommended that these be replaced with new trees.

3.0 TREE MANAGEMENT IN RELATION TO CONSTRUCTION

- 3.1 Apart from the 6no trees to be removed the remaining trees will not be affected by the proposed development provided precautionary methods are observed and implemented to protect the trees.
- 3.2 Precautions should be taken to protect trees before and during development. Guidance is given in BS5837:2005 “Trees in relation to Construction”. When it is agreed which trees are to be retained, protective fencing should be installed. Root cutting, compaction due to heavy construction vehicle movement and soil pollution are included in the operations that damage trees on construction sites. It is therefore imperative that the fencing is strong enough to withstand any incursion into the disturbance free areas. Even the parts of the site at some distance from proposed buildings or roads can be subject to the spill over of construction activities, such as burning of waste materials. In the case of groups of trees a fence should be installed around the group at the limit required for edge trees. The protective fence is to be erected around root protection areas (RPA's) calculated in accordance with BS:5837:2005 paragraphs 5.2 to 5.24 and TABLE 2.
- 3.3 The location and routed for the services should be, if at all possible, outside the protection zone for the trees. If this is not possible there are methods that can be employed to route service lines beneath tree roots without damaging them. Hand dug trenches or a ‘mole’ are amongst the methods used. The disturbance of ground should be kept free of all other activities.
- 3.4 As part of the landscape proposals for the site a Tree Constraints Plan is included on drawing number 2664/0310/02 incorporating information for tree protection and root zone disturbance. Disturbance Free Ground (DFG) and Root Protection Area (RPA) around retained trees is shown.

- 3.5 Dangerous and dying trees are to be felled as a safety precaution. However, where possible dead wood will be left on site to enhance wildlife benefits and increase bio diversity.

4.0 DEVELOPMENT EFFECT ON TREES

4.1 Roads, footpaths and car parking spaces can be constructed close to the trees provided that the construction is above existing ground and there is no significant excavation of the surface. Guidance on the type of materials and method of construction can be found in the following extracts.

4.2 BRITISH STANDARD BS 5837:2005

Development Near Trees

British Standard BS 5837:2005 *Guide for Trees in relation to Construction* recommends that on construction site the soil around a tree should be left undisturbed for a distance from the trunk equivalent to the branch spread, or half the tree's height, whichever is the greater. This is a protected zone in which any activity which could damage roots should be avoided. This often means that construction within this area is prohibited.

However, if the guidelines set out below are followed, installation of access driveways and parking for light vehicles should be possible without significant permanent damage to adjacent trees. Nevertheless, expert arboricultural advice may need to be sought to determine whether this technique is suitable for particular sites. In addition, the health of trees should be professionally assessed, as old and declining trees may be less able to withstand even the sympathetic construction.

Engineering Needs

Roads, footpaths and parking areas must be built with a firm stable base. Engineers usually achieve this by extracting the soil to a depth of about 0.5m, compacting the base if necessary and backfilling with an inert material that can be compacted. The edges of the excavation act as the supporting formation and kerbs or edging boards may be used to retain the surface material. However, such excavations will sever roots and should be avoided, particularly within the protected zone.

It should be possible to construct an adequately supported access drive and retain trees, if a no-dig system of construction is adopted within the protected zone.

Protection and Construction

For the roots to remain undamaged there must be no excavation, soil-stripping or site grading within the protected zone. This means that construction will have to be above the existing ground level. Passage of vehicles across the unprotected soil surface must also be avoided, especially when the soil is wet, as this will cause breakage of the surface roots, soil compaction and consequently reduced soil aeration. Surviving roots may not be able to grow through the compacted soil. It is essential therefore that all but the immediate area of the development is protected from construction operations by fencing as recommended in BS 5837.

No-Dig Construction

Successful retention of trees even when adopting a no-dig method, particularly within the protected zone, depends upon the condition of the tree(s), which should be assessed by a qualified arboriculturist and adherence to three simple rules:

- roots must not be severed
- soil must not be compacted
- oxygen must be able to diffuse into the soil beneath the engineered surface”.

4.3 PRACTICE NOTE APN1 (DRIVEWAYS CLOSE TO TREES)

(extract from Arboricultural Practice Note APN1 prepared by the Arboricultural Information and Advisory Service)

Summary

“The majority of tree roots are in the upper metre of the soil and they may spread outwards in any direction a distance equal to the tree height. Any

disturbance of the ground within the root spread of the tree can damage its roots which may severely injure the tree. Damage to roots will interrupt the supply of water necessary to keep the tree alive and may cause decline in vigour or even death of the tree. It may also be made unstable and pose a threat to the safety of people and property. Development of a site, including construction of access routes, driveways and parking areas can result in substantial root severance of trees. Techniques for the construction of access drives, which may avoid or lessen the damage to trees, are described.

Trees: A Cause For Conflict

Development may sometimes be hampered or prevented because of the presence of trees on a site. Local authorities and residents may wish to see the trees preserved whilst developers seek permission to build close to them – often ignorant about the damage this may cause to trees. Even developments such as access drives and parking areas can threaten existing nearby trees.

Traditional driveway construction (excavation and backfilling with a compactable load-bearing sub-base material) can seriously damage tree roots. Such damage occurs because of a lack of understanding that roots mainly grow outwards from a tree's trunk, near to the soil surface, rather than downward. Where there is a significant risk of damage to trees by root severance during construction local planning authorities may sometimes refuse permission for installation of an access driveway or parking area close to the trees – especially if the trees are subjects of Tree Preservation Orders".

5.0 TREE PRESERVATION ORDER

- 5.1 It has been confirmed by Wrexham Borough Council that there no tree preservations orders pertaining to the site, although the site adjoins a Conservation Area.

6.0 PROPOSED TREE PLANTING

As part of our recommendations we confirm that the proposed residential development will include the planting of 7 new trees within the development site. These will be located around the garden areas creating tree screening to the north, mitigation to the car park areas and feature specimens in the garden. All proposed trees will be planted in accordance with BS 5837:2006. The range of tree species included in the proposed scheme will consist of the following:-

Amelanchier lamarkii

Betula dalecarlica

Malus 'John Downie'

Sorbus aucuparia

7.0 TREE WORK DEFINITIONS

The tree works will include consideration of the following: -

Crown	Total volume occupied by the foliage
Included bark	Where a branch and trunk or two stems have a very tight union, bark presses on bark and becomes ingrown. The result is structurally a weak junction.
Crown thinning	Removal, pruning of selected branches throughout the crown of the tree.
Crown reduction	Pruning the height and overall crown spread to achieve a smaller crown size.
Crown cleaning	Removal of all dead twigs and small dead branches, diseased wood, cracked and damaged wood and rubbing branches.
Tipping	Cutting the ends of branches between nodes.
Topping	Indiscriminate reduction of height leaving a large wound. Can be very injurious to tree health
Flush Cuts	Where a branch has been cut very close to the trunk, removing the branch collar. This can also be very injurious, allowing decay to enter.
Sprouts	These are regrowth branches that grow rapidly from large wounds, more so on some species such as poplar and lime. They do not have a strong union with the trunk and tend to break out when they grow large.
Ribs	A protrusion of reactive wood growth that has formed over a crack or other anomaly
Hanger	A branch that has completely broken and is hanging in the crown.
Fluted trunk	A trunk that has distinct raised ribs at the buttress.
Leader	Leading shoot or stem – usually applied to a single stemmed tree.
Suppression	A tree which is beneath the crown(s) of another canopy and is being restricted by it.
Aerial inspection	The crown is assessed by a climber who inspects defects at close range.
Sucker	Shoots that grow from roots, often at the base of the tree
Epicormic sprouts	New branches that grow from dormant buds just beneath the bark. They are usually associated with lopping or topping cuts.

Internal inspection Can be undertaken by invasive drilling techniques or by the use of ultra sound technology

Occluded A cavity or wound where new bark has completely sealed the wound.

The surgery works should be to the minimum standards of BS 3998

“Recommendations for Tree Work”.

8.0 CONCLUSION

The proposed removal and replacement together with a proposed landscape scheme will ensure that the tree cover on the site will be retained and enhanced. The existing retained trees will benefit from an improved maintenance regime and will continue to grow and mature as part of the overall garden landscape.

**Peter Styles Dip Hort(Kew), Dip LA, FLI, FRSA
Lingard Styles Landscape Architects
9 College Hill
Shrewsbury
Shropshire SY1 1LZ**

REF 2664

MARCH 2010

SITE: Proposed Dwelling Hillcrest, Holt, Wrexham	SURVEY DATE: 25 March 2010	RATING KEY A Good. Retain at all cost B Medium. Retain if required C Poor. Remove from site D Dead remove from site	JOB REF 2664:
CLIENT: Mr & Mrs Ellison Hillcrest, Holt, Wrexham	Lingard Styles 4 College Hill, Shrewsbury Surveyed by Peter Styles Dip Hort (Kew) Dip LA FLI FRSA		DWG NO: 2664/0310/02

NO	SPECIES	HEIGHT	TRUNK DIAM.	SPREAD	CONDITION AND COMMENTS	AGE	RECOMMENDATIONS	RATING
01	Prunus laurocerasus (Laurel)	N/A	N/A	N/A	Stump	N/A	N/A	D
02	Laburnum anagyroides (Laburnum)	5.0m	150mm	3.6m	Poor specimen on garden boundary	10-	Remove if required.	C
03	Sorbus sp. (Whitebeam)	6.0m	200mm	5.0m	Young specimen	10+	Retain as part of boundary screen	C
04	Chamaecyparis lawsoniana (Lawsons Cypress)	11.0m	200m each trunk	6.0m	Triple trunk. Poor specimen. Ivy growth.	10-	Remove if required. Remove ivy.	C
05	Chamaecyparis lawsoniana (Lawsons Cypress)	9.0m	300mm	4.0m	Damaged. Split trunk. Pollarded on one side.	10-	Poor specimen. Remove.	C
06	Chamaecyparis lawsoniana (Lawsons Cypress)	11.0m	300mm	5.0m	Double trunk covered in ivy growth.	10-	Remove if required.	C
07	Rosa sp (Rose) Lonicera nitida Hedera helix (Ivy) Buddleja sp Ilex aquifolium (Holly) Syringa vulgaris (Lilac) Weigela Viburnum	N/A	N/A	N/A	Mixed deciduous and evergreen shrubs and small saplings		Thin out and prune to shape.	C

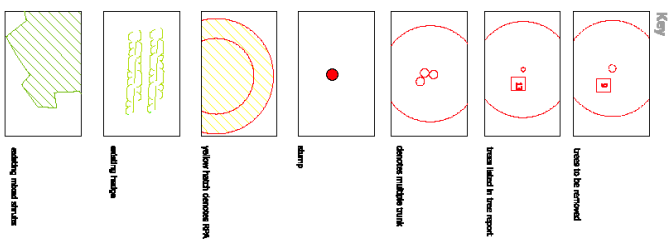
08	Crataegus monogyna (Hawthorn)	6.0m	300mm	4.0m	Ivy growing into canopy. Medium specimen.	10+	Remove ivy and clean through.	C
09	Laurus nobilis (Bay)	4.0m	N/A	3.5m	Mature specimen.	10+	Trim to shape. Remove dead growth.	B
10	Malus domestica (Apple)	6.0m	250mm	10.0m	Ivy growth on trunk. Mature specimen.	10-	Remove dead growth	C
11	Prunus sp. (Cherry)	8.0m	150mm	4.0m	Young specimen.	10+	Retain if required.	C
12	Crataegus monogyna Hedera helix Weigela Rubus Ilex Forsythia	N/A	N/A	N/A	Poor specimens with ivy growth.	10+	Thin out and prune to shape.	C
13	Malus domestica (Apple)	6.0m	300mm	7.0m	Signs of decay. Double trunk. Old specimen. Pruning evident	5-	Poor specimen remove	C
14	Malus domestica (Apple)	7.0m	300mm	7.0m	Double trunk. Mature specimen.	5-	Poor specimen Remove if required	D
15	Malus domestica (Apple)	8.0m	500mm	9.0m	Signs of decay. Old specimen. Pruning evident Arboreal fungus.	5-	Poor specimen remove	C
16	Abies sp. (Fir)	4.0m	N/A	2.5m	Young specimen in lawn area.	10+	No work required	B



hillcrest site photographs march 2010



hillcrest site photographs march 2010



NOTES:
 1. All dimensions are to the finished and surfaced ground unless otherwise stated.
 2. All dimensions are to the finished and surfaced ground unless otherwise stated.
 3. All dimensions are to the finished and surfaced ground unless otherwise stated.
 4. All dimensions are to the finished and surfaced ground unless otherwise stated.

lingard styles

Tree report

**MR & MRS ALLISON
HILLCREST
WREXHAM**

Tree

Tree report

2024-03-10-02 AS SHOWN IN A
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