



Horticulture & Arboriculture Ltd.

Arboricultural Assessment, Arboricultural Impact and Tree Protection Strategy Report

**Boyne Greenway -
Drogheda to Mornington,
Co. Meath/Co. Louth**

Project No.	TBOY001	Date	13/07/20
Project Name	Boyne Greenway - Drogheda to Mornington	Revision	A

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1. Client brief & Methodology

CMK Hort + Arb Ltd. were commissioned by DBFL on behalf of Meath County Council to undertake an arboricultural assessment of trees along the north side of the R150/R151, a 6.4km roadside area located between Drogheda and Mornington Bay Beach. The fieldwork was undertaken between the 5th of October and the 18th of December 2019.

The survey methodology, supporting drawings and documentation follow the recommendations contained within BS 5837 (2012). The analysis of the trees was undertaken using the VTA methodology as developed by Mattheck and Breloer (1994).



Image 1. Site overview with red line outline of survey boundary located at north side of the R150/R151 between Drogheda and Mornington Bay Beach.

2. General description of trees

A total of 269 trees were assessed within the subject site with a detailed analysis of individual trees within section 8 of this report. The locations of trees is shown on drawings TBOY001 101 to TBOY001 105 RevA. The condition of the trees is generally moderate to poor with a relatively high spread within categories B and C (table 1 and chart 1). The surveyed trees are a broad mixture of native/naturalised species (chiefly including Sycamore *Acer pseudoplatanus* and Ash *Fraxinus excelsior*) that are located in roadside strips, many of which acted as former agricultural boundaries (see chart 2 for species breakdown).

In the western section, for the first 130 meters of the survey area, a group of 61 Leyland cypress *Cupressus × leylandii* form a screen planting to former industrial grounds north (see image 2). These trees are of moderate landscape value and may have limited long-term potential due to poor root conditions from construction activity.



Image 2. Group of Leyland cypress screening former industrial grounds, 130 metre long.

Located opposite Drogheda Grammar School in a dense roadside grouping (see image 3) are a mixture of mature horse-chestnut *Aesculus hippocastanum* and Sycamore *Acer pseudoplatanus* and younger self-seeded native/naturalised species Wych Elm *Ulmus glabra*, Sycamore *Acer pseudoplatanus* and Beech *Fagus Sylvatica*. Trees in this area constitute the greatest concentration of higher value specimens, in terms of variety, venerability and landscape value.

Category	Number	% of total
A	0	0%
B	94	35%
C	165	61%
U	10	3.7%

Table 1. Tree Category breakdown of trees (see page 4 for tree category explanations).

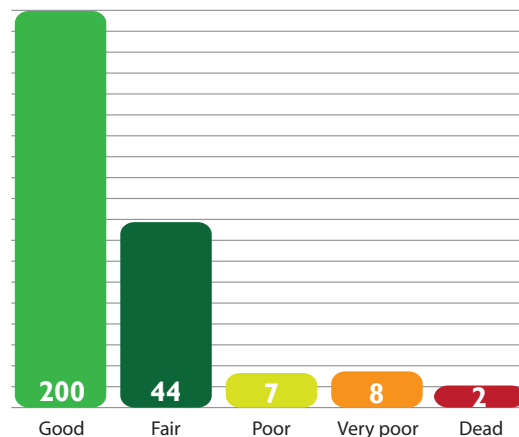


Chart 1. Tree vigour breakdown.

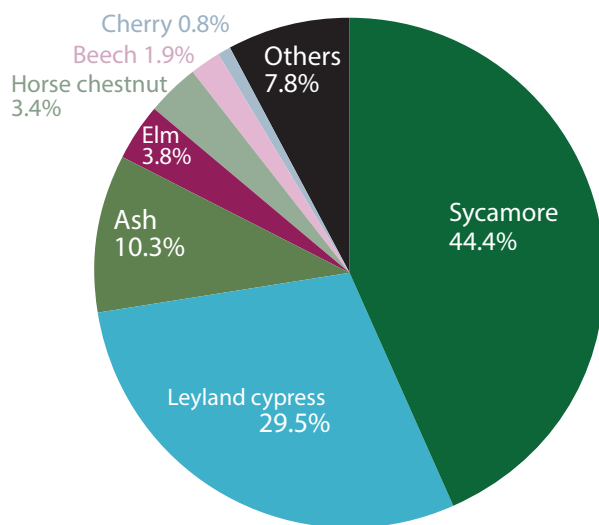


Chart 2. Tree species breakdown.



Image 3. Group of trees opposite Drogheda Grammar School.

Along the central section of the surveyed area trees are located in close proximity (less than one metre) from the R150 roadside. The average quality of these trees are moderate to poor (B-C) with many being of drawn up form due to local competition (see image 4).



Image 4. Sycamore and ash along the R150 east of Mill Road.

In the residential area of Mornington, garden hedges with tree plantings were surveyed along a 750 metre long section (see image 5). These chiefly consist of well maintained Green Privet *Ligustrum Ovalifolium* and Griselinia *Griselinia littoralis*. These are detailed in section 5.



Image 5. Griselinia hedge in the residential area of Mornington.

The most eastern area consists of 600 metres of track that winds through dunes covered in marram grass. Occasional dog rose *Rosa canina*, hawthorn *Crataegus monogyna* and scrub ash *Fraxinus excelsior* are present (see image 6).



Image 6. Maiden Tower viewed near Mornington Bay Beach. Marram grass covers dunes with occasional dog rose, hawthorn and scrub ash.

3. Limitations of Survey

This survey should be regarded as a preliminary assessment of the trees and deals with the current condition as identified during this survey only.

Every attempt was made to identify hazardous trees in this report however this survey was carried out from the ground and therefore cannot be held to have identified elements of decay which may be hidden out of sight within the crown or beneath ivy or other obstructions. To counter this limitation in the survey process it is vital that during tree works any additional defects found by the climbing arborist are communicated to the consulting arborist to allow appropriate action to be taken.

The details within this survey are based on the condition of the trees during the survey period only. The findings in this survey cannot be held to be valid after any site disturbance, man-made or natural, which may have an adverse effect on any trees present.

4. Relevant legislation

There are no Tree Protection Orders (TPOs) on any of the trees on this site. However unless planning permission which clearly identifies trees for removal has been granted then under Section 7 of the Forestry Act 2014 a person wishing to fell trees must apply to the minister for a licence to do so.

Exempted trees: Section 19 states that the requirement for a felling licence for the uprooting or cutting down of trees does not apply where:

- The tree in question is standing in an urban area
- The tree is considered dangerous and hazardous.
- The tree is within 10m of a public road and regarded as hazardous
- The tree in question is less than 100 ft./30m from a dwelling other than a wall or temporary structure;
- The tree in question is a hazel, apple, plum, damson, pear, or cherry tree grown for the value of its fruit or any ozier;

Other exceptions apply in the case of local authority road construction, road safety and electricity supply operations.

The Act is administered by the Forest Service (Department of Agriculture, Fisheries and Food). The Felling Section of the Forest Service is based in Johnstown Castle, Co. Wexford (053-9160200 or 1890-200223).

If any queries arise re tree felling in general it is recommended that advice is sought from Felling Section of the Forest Service or the local forestry development officer for further information.

Bats

Trees may contain bats. Bats are afforded legal protection under Irish and EU legislation and agreements (Wildlife Act (1976), Wildlife (Amendment) Act (2000), S.I. No. 94 of 1997 and S.I. No. 378 OF 2005 implementing the EU Habitats Directive, Bonn Convention (The Convention on the Conservation of Migratory Species of Wild Animal) and the Bern Convention (Convention on the Conservation of European Wildlife and Natural Habitats).

Trees provide roosting opportunities for bats. Mature trees are the most likely to have potential as roost sites. This may be provided by cavities, crevices, limb fractures, storm damage or mechanical damage and may even be by way of loose bark. Felling of mature trees and even surgery to large limbs may place bats at risk and both procedures remove roosting sites for bats.

Professional advice from a licenced surveyor should be sought prior to any works commencing on trees.

5. Terminology

Tree categories

A	Trees of high quality and value due to their size, age, condition, historical/visual merit and/or conservation potential. (a minimum of 40 years)
A1	Mainly arboricultural values. Particularly good examples of species, essential components of groups or of formal or semi-formal arboricultural features.
A2	Mainly landscape values. Trees, groups or woodlands which provide a definite screening or softening effects to the locality in relation to views into or out of site, or those of particular visual importance.
A3	Mainly cultural values, including conservation. Trees, groups or woodlands of significant conservation, historical, comparative or other value (e.g. veteran trees or wood-pasture).
B	Trees of moderate quality and value (a minimum of 20 years)
B1	Mainly arboricultural values. Trees that might be included in high categories but are downgraded because of impaired condition (e.g. presence of remedial defects including unsympathetic past management and minor storm damage)
B2	Mainly landscape values. Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal features (e.g. trees of moderate quality within an avenue that includes better A category specimens) or trees situated internally to the site, therefore individually having little visual impact on the wider locality.
B3	Mainly cultural values including conservation. Trees with clearly identifiable conservation or other cultural benefits.
C	Trees of low quality and value (a minimum of 10 years).
C1	Not qualifying in higher categories
C2	Trees present in groups or woodlands but without conferring on them greater landscape value and/or trees offering low or only temporary screening benefit.
C3	Trees with very limited conservation or other cultural benefits.
U	Trees in such condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management. Trees that are dead, dying or showing immediate and irreversible decline.

Terminology (cont.)

Comments: Refers to the tree's condition and suitability for the site.

Common name: Most widely used non botanical name.

Co-dominant: Two branches assuming the role of leading shoots. When growing close together may form a weak attachment (included bark) at their point of contact. Trees with this defect may be in danger of splitting at this weak attachment.

Crown Spread: Measured in metres north, east, south, and west.

Decay fungi: Refers to those species of fungi which degrade living wood and which may, depending on the degree of degradation, render the tree structurally unsound.

Defects: Refers to cracks, storm damage and any other damage mechanical or biological.

Diameter: Diameter of the trunk (millimetres) at 1.5m. M.S. after the measurement refers to the tree being multi-stemmed.

Genus & Species: Refers to the botanical names for the tree.

Height: Measured in metres.

Monitor: Refers to trees which need to be re-surveyed on a yearly basis to assess their condition. This timescale may be sooner where works or adverse weather conditions have impacted negatively on the trees.

Overhaul: A reference to standard tree surgery work which consists of the removal of deadwood, crossing branches and balancing where appropriate.

Recommendations: Indicates surgery work necessary for the retention or, where necessary, removal of the tree.

Tree No.: Refers to numbered tag fixed to tree during survey.

6. SURVEY IMAGES AT RESIDENTIAL AREAS



Image 7: Area A; *Crinodendron hookerianum* with Leyland hedge. Hedge 2 meter high and 4 metre long. Well maintained behind a 1.5 metre high pebbledash wall.



Image 8: Area B; *Laurel Prunus laurocerasus* hedge 1.5 metre high behind a metal fence screening a sewage pumping station.





Image 9: Area C; A Leyland hedge 2.25 metre high in a line perpendicular to the roadway. Well maintained.



Image 10: Area D; Griselinia hedge 1.5 metre high behind a brick wall. Well maintained and vigorous. 9 metre long. Early mature Swedish whitebeam (#693) shown left.



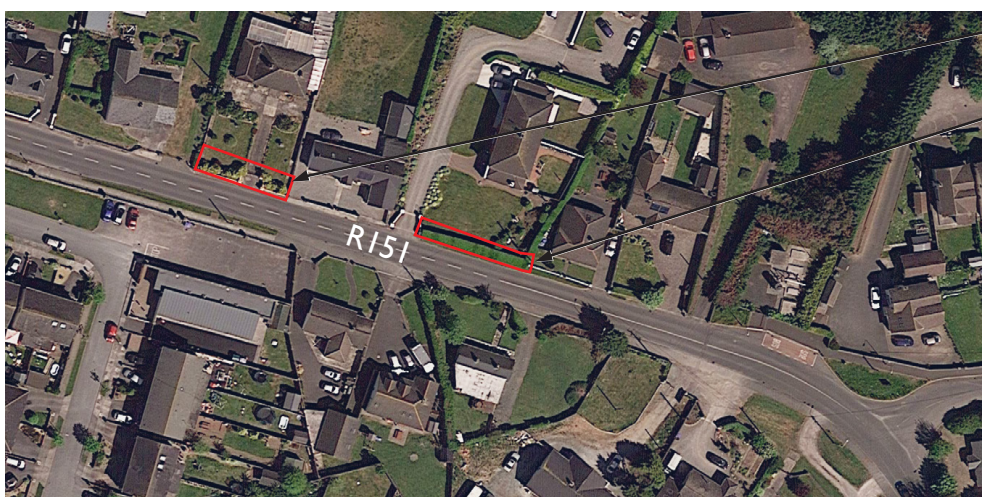
6. SURVEY IMAGES AT RESIDENTIAL AREAS



Image 11: Area E; Griselinia hedge 2 metre high behind a 1 metre high mesh wire fence. Well maintained. 23 metres long.



Image 12: Area F; Golden cypress (*Cupressus cv*) hedge topped to 1.75 metre high behind a low brick wall. Well maintained with no visible defects.



Area F

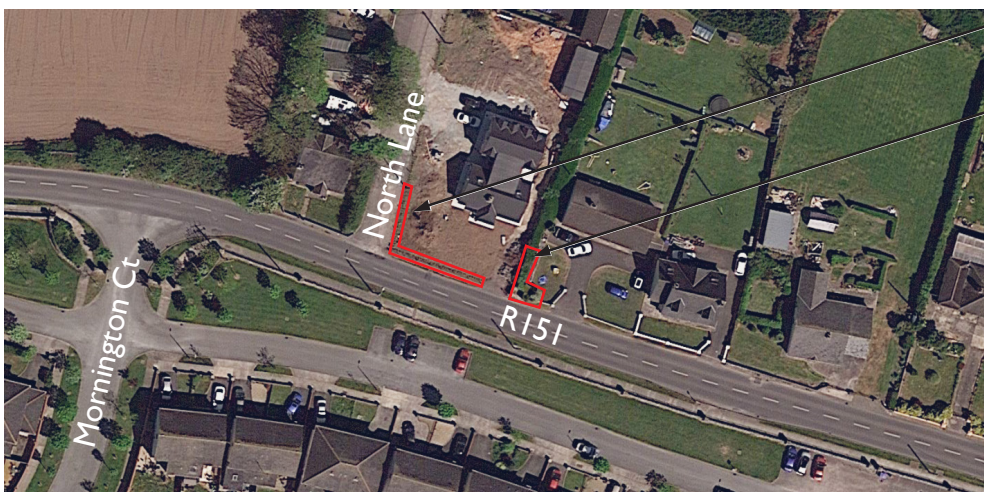
Area E



Image 13: Area G. 1.25 metre high privet hedge on eastern boundary of garden. Perpendicular to roadway. 2.5 metre euonymus cultivar, 1 metre from roadside. Well maintained.



Image 13: Area H. Juvenile griselinia 0.5 high metre hedge. Recently planted for screening to residential property.



Area H

Area G

6. SURVEY IMAGES AT RESIDENTIAL AREAS



Image 14: Area I; Bramble hedgerow located on property on corner of R150 and North Lane. 2.25 metre high in a line perpendicular to R150. Well maintained.





Image 15: Area J. Privet hedge 2 metre high. Well maintained. Set 1.75 metres from the roadside. Shown behind hedge are beech and cherry trees (#685, # 686 and #687).



Image 16: Area K. Privet hedge 1.7m high behind a low stone wall. Gappy in places but well maintained.



6. SURVEY IMAGES AT RESIDENTIAL AREAS



Image 17: Area L; Golden cypress (*Cupressus* cv), young birch (*Betula pendula*) and two young cherry (*Prunus* cv), behind a low stone wall.



Image 18: Area M; Mix of shrubs (New Zealand Flax *Phormium* cv, *Euonymus* cv, Rose of Sharon) behind a low concrete wall.

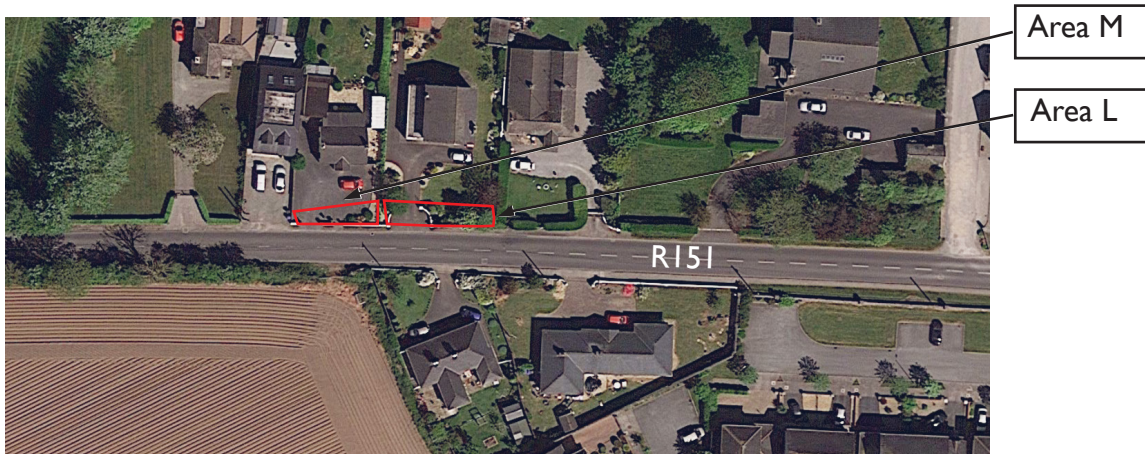




Image 19: Area N; Griselinia hedge 1 metre high. Well maintained. Located 0.5m from roadside and extending 35m long in front of the property.



Image 20: Area O; Privet hedge 1.75m high and griselinia hedge 1.25m high. Well maintained.

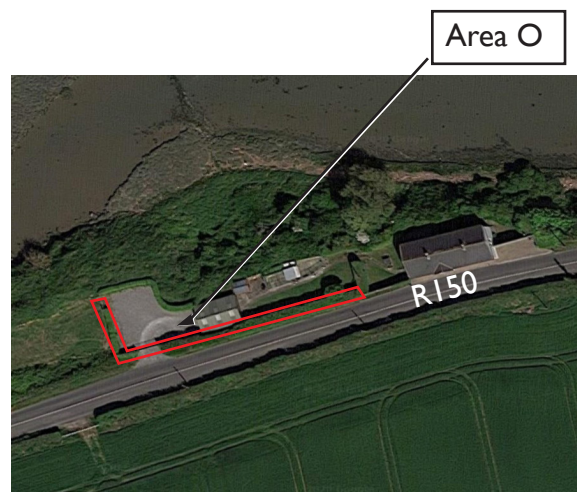
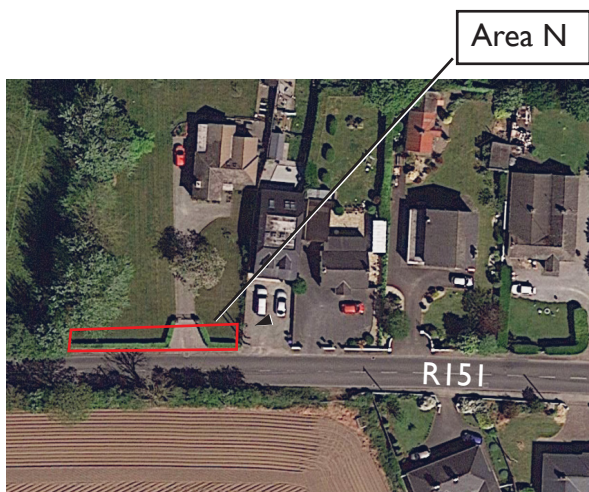




Image 21: Area P; A young sycamore inside private land at the intersection of Tower road and The Haven.



Area P

7. General Vegetation Area Descriptions (V1-V9)

Area Number	Image	Description
V1		Leyland cypress (<i>x Cuprocyparis leylandii</i>) hedge screening Flowgas marine terminal. Located 7m from kerbside. Metal security fence at north restricts growth and extends canopies south. 4-5m in height and well maintained.
V2		Located 3-4m from kerbside. Bramble (<i>Rubus agg</i>) hedgerow on agricultural field boundary interspersed with self seeded juvenile ash (<i>Fraxinus</i>), hawthorn (<i>Crataegus monogyna</i>), buddleia, goat willow (<i>Salix caprea</i>), young poplar (<i>Populus nigra</i>), unmanaged scrub-land and alder (<i>Alnus</i>). Of low landscape value but offers good ecological opportunities for wildlife.

7. GENERAL VEGETATION AREA DESCRIPTIONS (VI-V9)

Area Number	Image	Description
V3		Agricultural hedgerow to 1.75m high. Unmanaged and covered with heavy Ivy. Contains three large sycamore (<i>Acer pseudoplatanus</i>) (#516, #517, #518). Alder (<i>Alnus</i>) and occasional hawthorn (<i>Crataegus monogyna</i>).
V4		1m high bramble (<i>Rubus</i> agg) hedge on 2m roadside embankment adjacent to kerbside. Occasional self seeded juvenile sycamore (<i>Acer pseudoplatanus</i>) and lime (<i>Tilia</i>).
V5		Young hawthorn (<i>Crataegus monogyna</i>) and occasional gorse (<i>Ulex Europaeus</i>) forming a roadside hedgerow.
V6		Gorse (<i>Ulex Europaeus</i>) and bramble (<i>Rubus</i> agg) occasional juvenile willow (<i>Salix</i>) on small sandy embankments at the bottom of an access road.
V7		Scrub vegetation of alder (<i>Alnus Glutinosa</i>), juvenile willow (<i>Salix</i>), juvenile ash (<i>Fraxinus</i>) and gorse (<i>Ulex europaeus</i>) on a steep 5m embankment above the Boyne.
V8		Agricultural hedgerow. Bramble (<i>Rubus</i> agg); alder (<i>Alnus Glutinosa</i>) and hawthorn (<i>Crataegus monogyna</i>) with occasional sycamore (<i>Acer pseudoplatanus</i>) 5-7m high.
V9		Agricultural hedgerow. Bramble (<i>Rubus</i> agg), gappy in places with occasional early mature sycamore (<i>Acer pseudoplatanus</i>) (# 691 & #692).

*For locations refer to drawings TBOY001 101-105.

8. INDIVIDUAL TREE SCHEDULE

Tag Number	Species	Vigour	Age class	Category	Comments	Recommendations	Long Term Potential	DBH (mm)	Height (metre)	Clear Stem (Metre)	Crown spread NESW (Metre)
501	Leyland cypress <i>xCuprocyparis leylandii</i>	Good	Early Mature	C2	Tree group of 61. Located behind a 1m stone wall under the Boyne viaduct, 3m from the kerbside. Roots exposed north due to construction activity. Likely to restrict long term potential. Crown has been raised south east to accommodate road traffic. Average dbh 480, average height 13m.	No action necessary	10-15	480	13	2s	3;1;1;1
502	Leyland cypress <i>xCuprocyparis leylandii</i>	Good	Young	C2	Located opposite the Weirhope housing estate. 2m from kerbside. Soil piled high (150mm) above trunk flare resulting in poor root ventilation. 10 specimens in U shaped formation around stone marker. Average height 9m. Average dbh 250. Spaced 800mm apart.	No action necessary	15-20	250	9		2;1;2;1
503	Sycamore <i>Acer pseudoplatanus</i>	Good	Young	C2	Located next to a stone post that holds a chain link fence 2m from the kerbside. Sound unions at stem formation. No visible defects though long term potential limited by stone post which is 10mm on south.	No action necessary	10-15	260	5.25	2w	3;3;2;4
504	Sycamore <i>Acer pseudoplatanus</i>	Good	Young	C2	Located less than 20mm from a concrete pavement. Poorly formed due to growth through a chain link fence with bark damage increasing potential for decay.	No action necessary	<10	190	5.5	0	1;1;2;2
505	Sycamore <i>Acer pseudoplatanus</i>	Good	Early Mature	C2	Located 40cm from a concrete pavement and 2m from roadside. Canopy structure indicative of heavy pruning activity due to proximity to roadside. Crown well formed despite pruning. Heavy ivy growth. No visible defects.	Cut ivy	15-20	540	10	2.5n	3;4;4;4
506	Sycamore <i>Acer pseudoplatanus</i>	Good	Early Mature	C2	Group of five sycamore located 4-5m from kerbside behind metal security fence on waste ground. Tall and drawn up due to competition within close grouping. No visible defects.	No action necessary	15-20	500	11	3s	2;2;2;2
507	Ash <i>Fraxinus excelsior</i> & Sycamore <i>Acer pseudoplatanus</i>	Good	Young	C2	Juvenile ash(3)and sycamore(3)growing near a low stone wall 2.5m from kerbside. Long term potential limited due to proximity to wall. Many exhibit bark damage from mower activity. Less than 100dbh.	No action necessary	15-20	100	3	1n	1;1;1;1
508	Sycamore <i>Acer pseudoplatanus</i>	Good	Early Mature	C2	Upper canopy poorly formed due to successive pruning from roadside maintenance operations. Regrowth in lower canopy. Heavy ivy growth obscures assessment but lower stem unions are sound. No defects visible around base of trunk.	Cut ivy	15-20	540	9	1.5e	2;2;1;2
508b	Sycamore <i>Acer pseudoplatanus</i>	Good	Young	C2	Group of three self-seeded juvenile sycamore located behind a low stone wall 1.5m from the roadside.	No action necessary	15-20	170	6	1n	2;2;2;2
509	Lawson cypress <i>Chamaecyparis lawsoniana</i>	Good	Mature	B2	Tall and mature with a well developed crown. located behind a 0.75m stone wall 2m from the kerbside. Canopy raised south for road maintenance. No visible defects.	No action necessary	20-30	1040	14	1.5n	6;7;6;5
510	Sycamore <i>Acer pseudoplatanus</i>	Good	Young	C2	Subdominant to neighbouring tree. Located 30cm inside a 0.75m stone wall and 2m from the kerbside. Growth extended west due to neighbouring competition. No visible defects.	No action necessary	15-20	400	8	2n	4;0;2;4
511	Sycamore <i>Acer pseudoplatanus</i>	Good	Early Mature	C2	Located behind 0.75m stone wall 1.5m from kerbside. Trunk sound though stem regrowth from topping activity has resulted in poor formation with stems rubbing at several points.	No action necessary	15-20	410	9	1.5s	3;3;2;3

8. INDIVIDUAL TREE SCHEDULE

Tag Number	Species	Vigour	Age class	Category	Comments	Recommendations	Long Term Potential	DBH (mm)	Height (metre)	Clear Stem (Metre)	Crown spread NESW (Metre)
512	Sycamore <i>Acer pseudoplatanus</i>	Good	Early Mature	B2	Located 1m from kerbside over a 0.75m stone wall. Minor deadwood 2.25m east. Long term potential restricted due to 10cm proximity to stone wall. No visible defects.	No action necessary	20-30	420	10	2w	3;4;1.5;4
513	Sycamore <i>Acer pseudoplatanus</i>	Good	Young	C2	Tall and drawn up from close competition. Three young self seeded specimens 0.25m over low stone wall. No visible defects.	No action necessary	15-20	150	7	1n	2;2;2;2
514	Sycamore <i>Acer pseudoplatanus</i>	Poor	Mature	B2	Mature and drawn up. Roadside pruning has raised canopy and left form poor. Upper crown lost from possible storm damage. Debris build-up over root system from construction activities. No defects visible at trunk flare however.	Cut ivy	15-20	790	17	6e	3;3;3;4
515	Horse chestnut <i>Aesculus hippocastanum</i>	Good	Mature	B2	Located 2m from kerbside over a low stone wall. Canopy form drawn up due to neighbouring competition. Upper crown lost possibly from storm damage. Potential for decay in this area. No visible defects.	Assess upper canopy for decay	20-30	630	16	2.75n	4;2.5;2;4
516	Sycamore <i>Acer pseudoplatanus</i>	Fair	Early Mature	C2	Subdominant in neighbouring tree group. Located above a depression that levels with the river Boyne. No visible defects.	No action necessary	15-20	340	7	2s	4;1;2;3
517	Sycamore <i>Acer pseudoplatanus</i>	Fair	Early Mature	C2	Drawn up due to neighbouring competition. Deadwood in lower canopy. No visible defects.	No action necessary	15-20	560	11	2.25s	3;2;3;2
518	Sycamore <i>Acer pseudoplatanus</i>	Fair	Mature	C2	Dominant within neighbouring trees. Dense stem formation at 1.75m though exhibits good stem unions. No visible defects.	Prune near overhead services to the north.	15-20	910	12	0.5n	4;3;6;3
519	Common Oak <i>Quercus robur</i>	Good	Early Mature	C2	Subdominant to neighbouring trees. Growth extended north as a result. No visible defects.	No action necessary	15-20	380	7	1.5n	6;2;0;3
520	Sycamore <i>Acer pseudoplatanus</i>	Poor	Young	U	Growing from an internal boundary low stone wall. Poorly formed and in a state of decline.	Fell	<10	310	4.5	1.5w	2;2;2;4
521	Beech <i>Fagus sylvatica</i>	Good	Young	C2	Located 5m from kerbside in open ground in field. Young with close stem unions which may limit long term potential. No visible defects.	No action necessary	20-30	340	5.5	0.5n	2;2;2;1
522	Ash <i>Fraxinus excelsior</i>	Very Poor	Mature	U	In a state of advanced decline.	Fell		890	7		
523	Horse chestnut <i>Aesculus hippocastanum</i>	Good	Early Mature	B2	Located on edge of short embankment 3.5m from roadside. Subdominant to neighbouring tree (515). Growth extended east as a result.	Remove debris build-up around root system.	20-30	510	8	1.75n	5;4;2;1
524	Wych Elm <i>Ulmus glabra</i>	Good	Young	B2	Located 3m from the roadside behind a low stone wall. Heavy ivy growth. No visible defects.	Cut ivy	20-30	310	8	6e	2;3;2;1
525	Wych Elm <i>Ulmus glabra</i>	Good	Young	C2	Located 1.5m from roadside over a low wall. Tall and drawn up due to neighbouring competition. Heavy ivy growth. Crown raised from roadside maintenance. No visible defects.	No action necessary	15-20	290	8	5n	2;2;2;2
526	Sycamore <i>Acer pseudoplatanus</i>	Good	Young	C2	Young and subdominant in neighbouring tree group. Growth extended north west as a result. Sound unions with no visible defects.	No action necessary	10-15	170	6.5	0.5w	4;0;0;3

8. INDIVIDUAL TREE SCHEDULE

Tag Number	Species	Vigour	Age class	Category	Comments	Recommendations	Long Term Potential	DBH (mm)	Height (metre)	Clear Stem (Metre)	Crown spread NESW (Metre)
527	Horse chestnut <i>Aesculus hippocastanum</i>	Fair	Early Mature	C2	A poor specimen with regrowth in lower canopy. Upper structure possibly effected by storm event. Heavy ivy growth preventing detailed investigation. Base of trunk sound.	No action necessary	10-15	490	9	1n	3;2;1;3
528	Sycamore <i>Acer pseudoplatanus</i>	Good	Young	C2	Located 2m from roadside on top of a low embankment. A group of 3 closely spaced (0.5m) young sycamore. Tall and drawn up due to neighbouring competition. Heavy ivy growth. No visible defects.	No action necessary	10-15	300	7.5	1.5e	1;1;1;1
529	Sycamore <i>Acer pseudoplatanus</i>	Fair	Mature	B2	A large specimen that has a drawn up and vertically orientated canopy. Heavy ivy growth has been recently managed. No visible defects.	No action necessary	20-30	710	16	2w	2;3;2;5
530	Horse chestnut <i>Aesculus hippocastanum</i>	Good	Early Mature	B2	Located 2.25m from roadside. Tall and drawn up due to neighbouring competition. Provides good landscape value as part of a line near school. No visible defects.	No action necessary	20-30	600	11	3w	2;2;2;2
531	Sycamore <i>Acer pseudoplatanus</i>	Good	Young	C2	Subdominant within neighbouring tree group. Growth extended north as a result. Heavy ivy growth. No visible defects.	No action necessary	15-20	380	6	1n	6;1;0;4
532	Wych Elm <i>Ulmus glabra</i>	Good	Young	C2	Located on the edge of a short embankment 5m from the roadside. Subdominant to neighbouring tree group. Growth extended north as a result. Single stem with no visible defects.	No action necessary	15-20	330	5	2n	6;1;0;1
533	Horse chestnut <i>Aesculus hippocastanum</i>	Fair	Mature	U	Located 2.5m from roadside on a low embankment. Exhibits severe decay and bark loss north and east at 1-2m from bleeding canker. Long-term potential limited as a result. Trunk codominant at 2m with sound union between stems. Crown formation restricted due to competition from neighbouring trees.	Fell	<10	970	17	1.5n	6;4;2;3
534	Beech <i>Fagus sylvatica</i>	Good	Mature	B2	Located 1.75m from roadside on short embankment. Dominant within neighbouring tree group. Two stems forming at 8m with sound union. No visible defects.	No action necessary	20-30	1100	18		4;4;3;5
535	Horse chestnut <i>Aesculus hippocastanum</i>	Good	Young	C2	Group of four young self seeded horse chestnut and sycamore forming a line 2m north of the short embankment. Growth extended north due to competition from mature roadside trees. No visible defects.	No action necessary	15-20	280	6	1.5n	4;1;0;1
536	Sycamore <i>Acer pseudoplatanus</i>	Good	Young	C2	Located 4m from roadside. Young and squat. No visible defects.	No action necessary	15-20	170	5	1n	2;2;2;1
537	Horse chestnut <i>Aesculus hippocastanum</i>	Good	Mature	B2	Located 4m from roadside. A large mature specimen. Has suffered minor storm damage east with large hanging branch at 4.5m. Trunk forming three stems at 4m. Sound unions apparent but heavy ivy obscures detailed inspection. No visible defects.	Cut ivy	20-30	1020	17	4e	6;7;3;5
538	Sycamore <i>Acer pseudoplatanus</i>	Fair	Young	C2	Group of four young sycamore on top of a low embankment 2m from the roadside. Spaced 2m apart. Subdominant to mature chestnut north. No visible defects.	No action necessary	15-20	240	6	3n	2;2;2;2
539	Wych Elm <i>Ulmus glabra</i>	Good	Young	C2	Group of 3 young elm on top of roadside embankment. No visible defects.	Cut ivy	15-20	330	5.5	3n	2;1;2;1
540	Sycamore <i>Acer pseudoplatanus</i>	Dead	Mature	U				870	16		

7. INDIVIDUAL TREE SCHEDULE

Tag Number	Species	Vigour	Age class	Category	Comments	Recommendations	Long Term Potential	DBH (mm)	Height (metre)	Clear Stem (Metre)	Crown spread NESW (Metre)
541	Sycamore <i>Acer pseudoplatanus</i>	Good	Young	C2	Young and subdominant. Growth extended north as a result. No visible defects.	No action necessary	15-20	220	6	0.5n	4;2;1;3
542	Wych Elm <i>Ulmus glabra</i>	Good	Young	C2	Located 3m from roadside on north side of a short embankment. Trunk codominant at 0.5m with sound union. Subdominant in neighbouring tree group. No visible defects.	No action necessary	15-20	210	6	4.5s	5;3;4;5
543	Horse chestnut <i>Aesculus hippocastanum</i>	Good	Mature	B2	Located 5m from roadside on north side on an embankment. Trunk codominant at 2m with sound union. No visible defects. Canopy well developed.	No action necessary	30-40	740	12	2e	6;6;4;5
545	Ash <i>Fraxinus excelsior</i> & Sycamore <i>Acer pseudoplatanus</i>	Fair	Young	C2	A line of six young ash and sycamore. Located less than 1-4m from the roadside behind a 1m high stone wall. Tall and drawn up. Of poor form generally having been pruned extensively for road maintenance.	No action necessary	10-15	210	8		2;2;1;2
546	Ash <i>Fraxinus excelsior</i>	Fair	Early Mature	C2	Located 1m from roadside behind a 1m stone wall. Heavy ivy growth obscuring upper canopy inspection. Upper canopy limited. No visible defects at trunk flare and base.	No action necessary	15-20	320	12	6n	4;2;2;2
547	Sycamore <i>Acer pseudoplatanus</i>	Good	Mature	B2	Located 3m from the roadside behind a low stone wall. Five stems form at ground level. One small stem of which has collapsed and exhibits decay. Canopy relatively well formed. Raised south at roadside. Other stem bases are sound with no visible defects.	No action necessary	20-30	1250	12	4n	6;4;4;3
548	Ash <i>Fraxinus excelsior</i>	Fair	Early Mature	B2	Located 4m from the roadside behind a low stone wall. Trunk codominant from base with sound union. Canopy well formed. No visible defects.	No action necessary	20-30	820	13	6n	4;6;3;4
549	Sycamore <i>Acer pseudoplatanus</i>	Fair	Mature	B2	Located on top of a 1.25m high embankment 2.75m from the R150 roadside. Trunk exhibits a notable lean north away from road. Cavities in trunk 2.5m south but not significant. Deadwood in lower canopy but does not pose hazard to public due to position north of embankment.	Dead wood	15-20	810	12	1n	4;4;5;4
550	Sycamore <i>Acer pseudoplatanus</i>	Fair	Mature	C2	Located 2m from roadside. Upper canopy restricted. Heavy ivy swamping canopy. No visible defects.	Cut ivy	15-20	700	13		2;3;1;3
551	Ash <i>Fraxinus excelsior</i>	Good	Young	C2	Located less than 1m from R150 roadside. Two stems from base. Heavy ivy growth. No visible defects.	No action necessary	10-15	300	5.5	4n	1;2;5;1;1
552	Sycamore <i>Acer pseudoplatanus</i>	Fair	Young	C2	Located 3m from roadside behind a low stone wall. Tall and drawn up. No visible defects.	No action necessary	10-15	450	9	1.5w	2;1;2;2
553	Willow <i>Salix alba</i>	Good	Young	C2	Located on a bank above the Boyne mud flats. Multi stemmed with a well developed canopy. No visible defects.	No action necessary	15-20	280	6	1n	2;2;1;2
554	Sycamore <i>Acer pseudoplatanus</i>	Good	Mature	B2	A relatively well developed specimen with a compact crown. Heavy ivy up trunk. No visible defects	Cut ivy	30-40	880	14	0	6;3;2;3
555	Ash <i>Fraxinus excelsior</i>	Good	Mature	B2	Trunk abutting boundary wall. Three-stemmed from 1m with tight unions between stems. Heavy ivy growth up stems. Upper canopy relatively well developed.	Cut ivy	30-40	720	5	3s	5;4;3;3
556	Sycamore <i>Acer pseudoplatanus</i>	Good	Mature	B2	A relatively well developed specimen. No visible defects.	No action necessary	40	740	13	2.25w	5;5;4;5

8. INDIVIDUAL TREE SCHEDULE

Tag Number	Species	Vigour	Age class	Category	Comments	Recommendations	Long Term Potential	DBH (mm)	Height (metre)	Clear Stem (Metre)	Crown spread NESW (Metre)
557	Sycamore <i>Acer pseudoplatanus</i>	Good	Mature	B2	Located at base of boundary wall. Heavy ivy growth up stem obscuring view for assessment. Upper canopy relatively well developed with no visible defects.	Cut ivy	30-40	840	12	0.5n	6;3;3;2
558	Sycamore <i>Acer pseudoplatanus</i>	Good	Young	B2	A sub-dominant multi-stemmed specimen but relatively well developed. Heavy ivy growth up stems.	Cut ivy	15-20	320	7	0	3;1;2;2
559	Sycamore <i>Acer pseudoplatanus</i>	Good	Mature	B2	Trunk co-dominant from base with a wide union between stems. Very heavy ivy growth up stems. Upper canopy relatively well developed.	Cut ivy	40	440	10	0	5;4;2;3
560	Sycamore <i>Acer pseudoplatanus</i>	Good	Mature	B2	A relatively well developed specimen within narrow verge between road and boundary wall. Upper canopy well developed with no visible defects.	No action necessary	40	600	10	2n	4;4;2;3
561	Wych Elm <i>Ulmus glabra</i>	Good	Early Mature	B2	Well developed with no visible defects. Long-term potential limited due to Dutch elm disease.	No action necessary	10-15	440	13	3n	5;4;3;4
564	Sycamore <i>Acer pseudoplatanus</i>	Good	Mature	C2	Decay in base to south but not significant at present. Very heavy ivy growth up trunk. Upper canopy may have been lost in the past but area obscured by ivy.	Cut ivy	10-15	860	11	0	4;3;3;2
565	Goat willow <i>Salix caprea</i>	Good	Early Mature	B2	A multi-stemmed specimen becoming swamped in ivy. No visible defects.	Cut ivy	10-15	400	6	0	2;2;2;2
566	Sycamore <i>Acer pseudoplatanus</i>	Good	Mature	B2	Located on low embankment adjacent to road. Trunk co-dominant from 300mm with a tight union between stems. Very heavy ivy growth obscuring view for assessment. Upper canopy restricted toward east due to competition with neighbouring tree.	Cut ivy	30-40	800	13	2n	5;1;4;4
567	Sycamore <i>Acer pseudoplatanus</i>	Good	Mature	B2	A tall slender specimen on low embankment adjacent to road. Crown restricted toward east and west due to competition from neighbouring trees. Very heavy ivy growth obscuring view for assessment.	Cut ivy	30-40	720	17	3n	4;1;4;1
568	Sycamore <i>Acer pseudoplatanus</i>	Good	Mature	B2	A relatively well developed specimen on low embankment adjacent to road. Crown slightly restricted toward west due to competition from neighbouring tree. No visible defects.	No action necessary	30-40	780	17	6s	5;3;5;2
569	Sycamore <i>Acer pseudoplatanus</i>	Poor	Early Mature	C2	Trunk at an extreme angle. Long-term potential limited as a result.	Cut ivy	10	350	6		0;5;0;1;3;5
570	Sycamore <i>Acer pseudoplatanus</i>	Fair	Mature	C2	Upper canopy limited in extent. Trunk co-dominant from 350mm with a wide union between stems. Very heavy ivy growth restricting view for assessment.	Cut ivy	10	800	11	2n	4;0;5;0;5;1
571	Sycamore <i>Acer pseudoplatanus</i>	Good	Mature	B2	A relatively well developed multi-stemmed specimen. Heavy ivy growth obscuring view for assessment. No visible defects. A dead tree leaning into crown.	Cut ivy and remove dead tree	30-40	820	17	5n	3;2;4;2
572	Sycamore <i>Acer pseudoplatanus</i>	Good	Mature	B2	A relatively well developed specimen on low embankment adjacent to road. No visible defects but very heavy ivy growth obscuring view for assessment.	Cut ivy	30-40	520	16	6s	4;3;4;2
573	Sycamore <i>Acer pseudoplatanus</i>	Good	Mature	B2	A slight curve to base of trunk. Very heavy ivy growth obscuring view for assessment. Upper canopy restricted due to competition from neighbouring trees.	Cut ivy	20-30	540	14	5n	4;1;1;1

8. INDIVIDUAL TREE SCHEDULE

Tag Number	Species	Vigour	Age class	Category	Comments	Recommendations	Long Term Potential	DBH (mm)	Height (metre)	Clear Stem (Metre)	Crown spread NESW (Metre)
574	Sycamore <i>Acer pseudoplatanus</i>	Good	Mature	B2	Trunk three-stemmed from 1.25m with tight unions between stems. These are unlikely to be significant at present. Upper canopy compact and relatively well developed.	Cut ivy	30-40	880	12	2.5n	5;3;3;3
575	Ash <i>Fraxinus excelsior</i>	Good	Mature	B2	A wide spreading tree. Trunk co-dominant from 1m with a wide union between stems. Very heavy ivy growth obscuring view for assessment.	Cut ivy	30-40	1090	14	2n	5;5;3;3
576	Hawthorn <i>Crataegus monogyna</i>	Poor	Mature	U	Extreme lean over road	Fell	<10	250	6	0	0;1;4;1
577	Ash <i>Fraxinus excelsior</i>	Good	Early Mature	B2	A relatively well developed multi-stemmed specimen. Crown restricted toward east but not significantly so.	No action necessary	30-40	580	8	0	3;1;3;4
578	Sycamore <i>Acer pseudoplatanus</i>	Good	Early Mature	B2	A cluster of stems forming a self-contained unit. No visible defects.	No action necessary	30-40	370	8	0	4;4;4;4
579	Sycamore <i>Acer pseudoplatanus</i>	Good	Early Mature	B2	A multi-stemmed specimen with tight unions between stems. Unlikely to be structurally significant at present.	No action necessary	30-40	820	8	0	3;2;3;3
580	Ash <i>Fraxinus excelsior</i>	Poor	Early Mature	C2	Poor crown development indicative of having been topped. Very heavy ivy growth obscuring view for assessment.	Cut ivy	10-15	580	7	1n	4;1;1;1
581	Ash <i>Fraxinus excelsior</i>	Fair	Early Mature	B2	A slightly sub-dominant specimen. Crown restricted toward west as a result. Very heavy ivy growth up trunk obscuring view for assessment. No visible defects	Cut ivy	15-20	290	6	2.5n	3;2;1;1
582	Sycamore <i>Acer pseudoplatanus</i>	Good	Young	B2	A relatively well developed specimen though crown restricted toward north and east due to competition from neighbouring trees. Trunk co-dominant from 2.5m with a wide union between stems.	Cut ivy	20-30	540	13	5s	0.5;0.5;4;3
583	Sycamore <i>Acer pseudoplatanus</i>	Good	Early Mature	B2	Basal curve to trunk but not significant at present. Canopy relatively well developed.	No action necessary	30-40	480	12	3s	4;3;3;3
584	Sycamore <i>Acer pseudoplatanus</i>	Good	Mature	B2	A well developed dominant specimen. Crown restricted toward east due to competition from neighbouring trees. No visible defects.	No action necessary	30-40	580	13	2.5w	5;1;3;3
585	Sycamore <i>Acer pseudoplatanus</i>	Fair	Early Mature	B2	Slightly sub-dominant with crown restricted toward south as a result.	No action necessary	15-20	480	12	0	5;2;0;5
586	Sycamore <i>Acer pseudoplatanus</i>	Fair	Young	B2	A tall slender specimen drawn up due to competition from neighbouring trees.	No action necessary	10-15	290	12	6n	1;0;1;1
587	Sycamore <i>Acer pseudoplatanus</i>	Fair	Early Mature	C2	A tall slender specimen drawn up for light due to competition from neighbouring trees. Long-term potential restricted due to Dutch elm disease	No action necessary	10-15	380	12	4n	3;1;1;1
588	Ash <i>Fraxinus excelsior</i>	Good	Mature	B2	A relatively well developed dominant specimen. Very heavy ivy growth obscuring view for assessment but no visible defects.	Cut ivy	30-40	680	14	5w	5;5;3;5
589	Sycamore <i>Acer pseudoplatanus</i>	Good	Mature	B2	A large dominant specimen. Very heavy ivy growth obscuring view for assessment. Well developed with no visible defects.	Cut ivy	30-40	840	14	2n	5;5;5;5
590	Sycamore <i>Acer pseudoplatanus</i>	Fair	Mature	B2	Located 3.5m from the roadside behind a 0.75m stone wall. Trunk codominant at 2m with sound union. Upper canopy restricted possibly from topping. No visible defects.	Cut ivy	30-40	820	12	5n	4;5;4;5

8. INDIVIDUAL TREE SCHEDULE

Tag Number	Species	Vigour	Age class	Category	Comments	Recommendations	Long Term Potential	DBH (mm)	Height (metre)	Clear Stem (Metre)	Crown spread NESW (Metre)
591	Ash <i>Fraxinus excelsior</i>	Good	Young	B2	Located 2m from the R150 roadside. Young and multi stemmed. Crown well developed. No visible defects.	No action necessary	20-30	340	6.5	0	3;5;2;4
592	Ash <i>Fraxinus excelsior</i>	Fair	Early Mature	C2	Located 5m from the roadside. Upper canopy restricted possibly from topping for roadside maintenance. Minor deadwood in lower canopy. Some of which could pose a hazard to traffic the R150. No defects visible at trunk base.	Dead wood	10-15	420	8	2.75w	2;4;3;5
593	Sycamore <i>Acer pseudoplatanus</i>	Poor	Young	C2	Located 5m from roadside. Heavy ivy growth on upper canopy with restricted growth. Lower canopy more vigorous but poor form overall.	No action necessary	10-15	210	5.5	1.5e	1;3;1;1
594	Ash <i>Fraxinus excelsior</i>	Good	Young	C2	Located 1m from roadside. Young and well formed. Heavy ivy growth. No visible defects.	No action necessary	15-20	190	5	1n	3;4;1;2
595	Sycamore <i>Acer pseudoplatanus</i>	Good	Early Mature	B2	Subdominant but relatively well formed. Single stemmed with canopy extended south and west due to competition from neighbouring trees. No visible defects.	No action necessary	20-30	360	9	3s	2;1;4;4
596	Sycamore <i>Acer pseudoplatanus</i>	Dead	Early Mature	U		Fell	0	360	5		
597	Sycamore <i>Acer pseudoplatanus</i>	Good	Mature	B2	Located 4.5m from an access road to the bank of the Boyne. Dominant within neighbouring tree group. Canopy well formed. Heavy ivy growth. No visible defects.	No action necessary	30-40	540	11	3n	3;4;5;4
598	Sycamore <i>Acer pseudoplatanus</i>	Fair	Early Mature	B2	Located 3m from access road to Boyne. Upper canopy restricted and heavy ivy has encroached. No visible defects at base.	Prune branches over access road.	20-30	550	10	1s	3;3;4;3
599	Ash <i>Fraxinus excelsior</i>	Good	Young	B2	Located 1.5m from a access road to the Boyne. Multi stemmed and well formed with a full canopy. Included bark at 0.25m east. Though unlikely to reduce long term potential.	Raise canopy over access road.	20-30	220	8.5	2n	5;6;5;3
600	Sycamore <i>Acer pseudoplatanus</i>	Fair	Young	C2	Located on a low embankment 1m from roadside. Heavy basal growth as a result of pruning activity. Form squat as a result. No visible defects.	No action necessary	15-20	270	5	0	2;1;1;3
601	Sycamore <i>Acer pseudoplatanus</i>	Fair	Young	B2	Located on side of embankment between access road to Boyne and the R150. Codominant from base. Subdominant to neighbouring tree. No visible defects.	No action necessary	20-30	290	7.5	5.5n	2;1;2;3
602	Sycamore <i>Acer pseudoplatanus</i>	Good	Early Mature	B2	Located 2m from R150 roadside. A large specimen with a relatively well developed canopy. Minor deadwood 6m south; though occurs over road. No visible defects.	Remove deadwood south over roadside.	20-30	460	13	5n	4;5;5;5
603	Sycamore <i>Acer pseudoplatanus</i>	Fair	Young	C2	Located 3m from roadside over a low embankment. Subdominant to neighbouring tree group. No visible defects.	No action necessary	15-20	310	6	4.5e	2;3;3;1
604	Sycamore <i>Acer pseudoplatanus</i>	Fair	Young	C2	Young and drawn up due to local competition. No visible defects.	No action necessary	15-20	300	8	2.25n	2;1;2;1.5
605	Sycamore <i>Acer pseudoplatanus</i>	Fair	Young	C2	Tall and drawn up due to local competition. Canopy growth extended north. Heavy ivy growth. No visible defects.	No action necessary	15-20	310	8	4n	3;1;1;1
606	Sycamore <i>Acer pseudoplatanus</i>	Fair	Young	C1	Young specimen that is drawn up due to neighbouring competition. No visible defects.	No action necessary	15-20	180	7	2.5w	1;1;2;1

8. INDIVIDUAL TREE SCHEDULE

Tag Number	Species	Vigour	Age class	Category	Comments	Recommendations	Long Term Potential	DBH (mm)	Height (metre)	Clear Stem (Metre)	Crown spread NESW (Metre)
607	Sycamore <i>Acer pseudoplatanus</i>	Fair	Young	C2	Located 2m from roadside on low embankment. Tall and drawn up. No visible defects.	No action necessary	15-20	220	7	3n	2;1;2;1
608	Sycamore <i>Acer pseudoplatanus</i>	Fair	Young	C2	Located 2.5m from roadside behind a low embankment. The end of a line of young sycamore. Canopy growth extended east due to local competition. No visible defects.	No action necessary	15-20	330	7	0	2;3;1;1
609	Sycamore <i>Acer pseudoplatanus</i>	Good	Young	C2	Located 9m from roadside. Young and well formed. Light ivy growth. No visible defects.	No action necessary	15-20	220	7	2n	2;2;1;2
610	Sycamore <i>Acer pseudoplatanus</i>	Good	Early Mature	B2	Located 5m from roadside. Relatively well developed canopy. No visible defects.	No action necessary	20-30	340	10	2.25n	5;3;3;2
611	Sycamore <i>Acer pseudoplatanus</i>	Poor	Young	C2	Subdominant with a limited overall canopy. A single stem extended north due to light competition. No visible defects.	No action necessary	15-20	210	6	4n	5;1;0;1
612	Sycamore <i>Acer pseudoplatanus</i>	Good	Early Mature	C2	Located 3m from roadside. Subdominant with growth extended east. Long term potential reduced as a result.	No action necessary	15-20	500	13	2n	2;2;2;5
613	Sycamore <i>Acer pseudoplatanus</i>	Good	Mature	B2	Located 5m from roadside. Dominant within a neighbouring group of early mature sycamore. Well formed canopy. No visible defects.	Monitor lower canopy over R150 roadway for deadwood.	30-40	680	15	0.5n	7;6;6;5
614	Sycamore <i>Acer pseudoplatanus</i>	Fair	Early Mature	C2	Subdominant within neighbouring tree group. Growth extended north as a result. Which will impact long term potential. No visible defects.	No action necessary	15-20	330	7	0.5n	6;1;0;1
615	Sycamore <i>Acer pseudoplatanus</i>	Good	Early Mature	C2	Subdominant within neighbouring tree group. Growth extended north east as a result. Trunk codominant at 1.25m and exhibits a poor union between stems. No fall hazards are present however.	No action necessary	10-15	280	8	0	3;4;2;0
616	Pedunculate oak <i>Quercus robur</i>	Good	Young	B2	Located 7m from roadside. Young and well formed. Five stems forming at 2m. No visible defects.	Cut ivy	30-40	380	5	2s	4;5;4;3
617	Sycamore <i>Acer pseudoplatanus</i>	Good	Young	B2	Located 12m from roadside. Codominant at 3m with sound union between stems. No visible defects.	No action necessary	0	340	7.5	2n	3;4;4;3
618	Ash <i>Fraxinus excelsior</i>	Fair	Early Mature	C2	Located 7m from R150 roadside. Deadwood in lower canopy. Localised decay north at 1m. Three stems forming at 2.25m. Sound unions present.	No action necessary	10-15	440	10	2.5w	5;6;4;4
619	Sycamore <i>Acer pseudoplatanus</i>	Good	Early Mature	B2	Located 4.5m from roadside. Trunk codominant at 0.5m with sound union present. Well developed canopy. No visible defects.	No action necessary	20-30	720	12	3e	5;3;5;3
620	Ash <i>Fraxinus excelsior</i>	Fair	Early Mature	B2	Tall and drawn up. Subdominant within neighbouring tree group. No visible defects.	No action necessary	20-30	230	10	5n	3;1;2;4
621	Ash <i>Fraxinus excelsior</i>	Fair	Early Mature	B2	Tall and drawn up. Subdominant within neighbouring tree group. Exhibits a horizontal growth which corrects at 0.75m. No visible defects.	No action necessary	20-30	320	11	3.5n	3;1;1;2
622	Sycamore <i>Acer pseudoplatanus</i>	Good	Early Mature	B2	Located 6.5m from roadside. Dominant within neighbouring tree group. Four stems forming at 3m with sound unions present. Well developed canopy. No visible defects.	No action necessary	20-30	600	12	2n	5;4;5;6

8. INDIVIDUAL TREE SCHEDULE

Tag Number	Species	Vigour	Age class	Category	Comments	Recommendations	Long Term Potential	DBH (mm)	Height (metre)	Clear Stem (Metre)	Crown spread NESW (Metre)
623	Ash <i>Fraxinus excelsior</i>	Good	Early Mature	B2	Located 8.5m from roadside. Three stems forming at base. Good vertical growth exhibited in each stem. Well developed canopy. No visible defects.	No action necessary	20-30	600	12	4.5n	6;4;6;6
624	Sycamore <i>Acer pseudoplatanus</i>	Good	Early Mature	C2	Located 5.5m from the roadside. Well developed lower canopy. Heavy ivy on trunk. Basal growth suggests possible storm damage in upper canopy. No visible defects.	No action necessary	15-20	450	8	0	3;5;2;3
625-661 Tag not in use											
662	Sycamore <i>Acer pseudoplatanus</i>	Good	Young	B2	Located 4.5m from R150. Young with a well developed canopy. No visible defects.	No action necessary	20-30	320	7	2w	2;3;2;3
623 No Tag not in use											
664	Sycamore <i>Acer pseudoplatanus</i>	Good	Young	B2	Located on the bank of a tributary of the Boyne 22m from the R150. Well developed with no visible defects.	No action necessary	20-30	350	7		2;2;2;3
665	Leyland cypress <i>xCuprocyparis leylandii</i>	Good	Early Mature	B2	A group of three Leyland on private property. Located 8m from the roadside. Well developed canopy with no visible defects.	No action necessary	20-30	440	11	0	4;4;4;4
666	Ash <i>Fraxinus excelsior</i>	Good	Early Mature	B2	Located 8m from roadside on steep embankment. Well developed canopy. no visible defects.	No action necessary	30-40	330	8	2w	3;4;2;4
667	Ash <i>Fraxinus excelsior</i>	Good	Early Mature	B2	Located 1m from roadside. Crown raised south due to road maintenance. Heavy ivy growth on trunk though not extending to branches. No visible defects.	No action necessary	20-30	360	6	0	5;4;2;4
668	Wych Elm <i>Ulmus glabra</i>	Good	Young	B2	Young and well formed with a single stem. No visible defects.	No action necessary	20-30	310	7	1n	2;2;2;3
669	Sycamore <i>Acer pseudoplatanus</i>	Fair	Early Mature	B2	Located 9m from roadside on a steep embankment. Well developed canopy. Heavy ivy growth on trunk. No visible defects.	No action necessary	20-30	510	8	0	3;4;3;5
670	Sycamore <i>Acer pseudoplatanus</i>	Good	Young	C2	Located 7m from roadside. On steep embankment. No visible defects.	No action necessary	15-20	240	6	2e	2;3;2;5
671	Rowan cultivar <i>Sorbus aucuparia cv</i>	Good	Young	C2	Located 6m from roadside. Multi stemmed with well developed canopy. No visible defects.	No action necessary	15-20	290	6		2;3;1;1
672	Rowan cultivar <i>Sorbus aucuparia cv</i>	Good	Early Mature	C2	Located 4m from roadside on a steep embankment. Multi stemmed with well developed canopy. No visible defects.	No action necessary	15-20	420	7	3w	3;4;3;4
673	Ash <i>Fraxinus excelsior</i>	Good	Early Mature	C2	Located 3m from roadside on a steep embankment. Multi-stemmed with well developed canopy. Heavy ivy growth. No visible defects.	No action necessary	15-20	300	7	6n	3;5;4;3
674	Beech <i>Fagus sylvatica</i>	Good	Early Mature	C2	Located 5m from roadside. Squat form canopy possible from pruning activity due to overhead services. No visible defects.	No action necessary	15-20	360	4	0	3;3;3;2
675	Sycamore <i>Acer pseudoplatanus</i>	Very Poor	Early Mature	U	A line of seven sycamore, decapitated with very limited long-term potential.	Fell	0	330			

8. INDIVIDUAL TREE SCHEDULE

Tag Number	Species	Vigour	Age class	Category	Comments	Recommendations	Long Term Potential	DBH (mm)	Height (metre)	Clear Stem (Metre)	Crown spread NESW (Metre)
676	Sycamore <i>Acer pseudoplatanus</i>	Good	Young	C2	Located 1m from roadside. Codominant at 0.25m with sound union between stems. Top of canopy within overhead services. No visible defects.	Prune canopy near overhead services.	15-20	300	5	0.5n	3;1;1,2
677	Leyland cypress <i>xCuprocyparis leylandii</i>	Good	Early Mature	B2	Located 2.25m from roadside. Canopy restricted due to pruning from maintenance for overhead services. No visible defects.	No action necessary	20-30	340	6	0	2;2;1,2
678	Leyland cypress <i>xCuprocyparis leylandii</i>	Good	Early Mature	B2	Located 1.25m from roadside. Part of a closely planted group of three Leyland. Well developed with no visible defects.	No action necessary	30-40	630	7	1.5w	1,3;3,3
679	Leyland cypress <i>xCuprocyparis leylandii</i>	Good	Early Mature	B2	Located 2.25m from roadside. Subdominant within group.	No action necessary	20-30	330	7	0.5w	2;1;1,2
680	Leyland cypress <i>xCuprocyparis leylandii</i>	Good	Early Mature	B2	Located 3.25m from roadside. Part of a closely spaced group of Leyland's. Well developed with no visible defects.	No action necessary	30-40	430	8	1.5s	3;3;3,1
681	Sycamore <i>Acer pseudoplatanus</i>	Good	Early Mature	B2	Trunk codominant at base and exhibiting sound unions between stems. No visible defects.	No action necessary	20-30	620	12	3n	3,4;3,4
682	Sycamore <i>Acer pseudoplatanus</i>	Good	Mature	C2	Located 3m from roadside. Subdominant in neighbouring tree group. Canopy restricted east as a result. Three sound vertical stems forming between 0.5-2m. No visible defects.	No action necessary	30-40	690	15	2n	5;1,4,5
683	Sycamore <i>Acer pseudoplatanus</i>	Good	Mature	B2	Located 3.25m from roadside R150. Dominant in neighbouring tree group. Five stems forming at base with sound unions and strong vertical structure. No visible defects.	No action necessary	30-40	1050	15	1.5n	6;5,6,4
684	Sycamore <i>Acer pseudoplatanus</i>	Fair	Early Mature	C2	Located within an agricultural hedgerow 0.5m from the roadside. Three stems from the base. No visible defects.	No action necessary	15-20	380	6	1.5w	2;3;1,3
684b	Cherry cultivar <i>Prunus</i> cv Birch <i>Betula pendula</i>	Good	Young	B2	A group of young specimens inside private property. Well maintained with no visible defects.	No action necessary	30-40	220	5	1w	2,2;2,2
685	Beech <i>Fagus sylvatica</i>	Good	Young	B2	Located 4.25m from roadside behind an property entrance wall. Well developed with no visible defects.	No action necessary	20-30	220	5	1w	2,2;2,2
686	Beech <i>Fagus sylvatica</i>	Good	Early Mature	B2	Located behind property entrance wall 4.25m from roadside. Well developed with no visible defects.	No action necessary	20-30	390	6	1s	2,2;2,2
687	Cherry cultivar <i>Prunus</i> cv	Good	Mature	B2	Located 3.5m from roadside behind a 2m privet hedge. Well developed canopy which has been reduced on south towards R150. No visible defects.	No action necessary	30-40	460	6	2e	4;6,5;5,4
688	Cherry <i>Prunus avium</i>	Good	Early Mature	B2	Located 1.25m east from residential properties low stone boundary wall. Deadwood in lower canopy. Upper canopy well developed. No visible defects.	No action necessary	20-30	390	7	1s	3,4;3,3
689	Sycamore <i>Acer pseudoplatanus</i>	Good	Young	B2	Tall and drawn up due to light suppression from neighbouring tree group. No visible defects.	No action necessary	20-30	150	7	1.75s	1;1;1,1
690	Silver birch <i>Betula pendula</i>	Good	Early Mature	B2	Located 6m from the roadside. Canopy squat and wide. Heavy ivy on trunk not extending to branches. No visible defects.	No action necessary	20-30	270	6	2.5s	3;1,4,2
691	Sycamore <i>Acer pseudoplatanus</i>	Good	Early Mature	B2	Located 1.75m from roadside within an agricultural hedgerow. Trunk codominant at 2m with a sound union. Canopy well developed. No visible defects.	No action necessary	20-30	390	6	2e	2,4;3,3

8. INDIVIDUAL TREE SCHEDULE

Tag Number	Species	Vigour	Age class	Category	Comments	Recommendations	Long Term Potential	DBH (mm)	Height (metre)	Clear Stem (Metre)	Crown spread NESW (Metre)
692	Sycamore <i>Acer pseudoplatanus</i>	Fair	Early Mature	C2	1.25m from roadside and located within an agricultural hedgerow. Single stemmed with poor canopy development restricted by neighbouring hawthorn. No visible defects.	No action necessary	15-20	250	7	1.5w	1;1;1.5;2
693	Swedish whitebeam <i>Sorbus aria</i>	Good	Early Mature	B2	Well developed with no visible defects.			340	6		3;2;2;2
694	Leyland cypress <i>x Cuprocyparis leylandii</i>	Good	Early Mature	C2	Located in west corner of sewage pump station, 1m from a 1.5m high metal fence. Canopy raised south to accommodate fence. Upper canopy restricted from topping activity. No visible defects.	No action necessary	15-20	430	6		2;4;3;2
695	Sycamore <i>Acer pseudoplatanus</i>	Good	Young	B2	Located on eastern side of the entrance to The Haven housing estate. Multi-stemmed with heavy basal and lower canopy growth from topping due to maintenance of overhead services. Vigorous canopy. No visible defects.	No action necessary	15-20	270	5.5		1;3;1;1
696	Himalayan birch <i>Betula utilis</i>	Good	Young	B2	Young specimen planted on grass verge. Sound stem union. no visible defects.	No action necessary	20-30	90	2.5		1.5;1;1;1
697	Purple leaf cherry <i>Prunus x cistena</i>	Good	Early Mature	B2	Located 1.75m from roadside. Multi-stemmed and of well developed form. No visible defects.	No action necessary	10	230	3		2;2;2;2
698	Purple leaf cherry <i>Prunus x cistena</i>	Good	Early Mature	B2	Located 2m from roadside. Multi-stemmed and of well developed form. No visible defects.	No action necessary	10	250	3		2;2;2;2
699	Cabbage Tree <i>Cordyline australis</i>	Good	Young	B2	Located 1m from the roadside. Young with no visible defects.	No action necessary	20-30	160	2.25		0.5;0.5;0.5;0.5
700	Himalayan birch <i>Betula utilis</i>	Good	Young	B2	Young specimen planted on grass verge. Sound stem union. no visible defects.	No action necessary	20-30	180	4		2.5;1;1;2

*Refer to drawing TBOY001 101 to TBOY001 105 RevA inclusive for tree locations.

9. Arboricultural Impact and Mitigation

2.1 Arboricultural Impact

Note: locations of trees were taken using high-accuracy GNSS devices. However, these devices do not have the accuracy of a complete topographical survey. As such, a small margin of error must be acknowledged.

A total of 154 trees and six private hedges (table 6.) are to be removed to facilitate works. Eight of these trees are within private residential lands. A further two category U trees (#533, #540) are recommended to fell. While these are not within the proposed route, they have a risk of failure and are within a hazardous distance of the R150 roadway.

The proposed greenway route would have a marked arboricultural impact, with the necessary removal of a total of 54.7% of wooded vegetation within the proximity of the works on the north side of the R150/151. However, the impact on moderate value trees is minimal, with just 24% of 94 “B” classified trees being effected (see table 4), thus retaining the majority of the higher value trees.

Table 5 details eleven individual trees on private lands that would need to be removed to facilitate construction. Locations are shown on drawings TBOY001 101 to 105 RevA inclusive and TBOY001 106 to 110 RevA inclusive.

2.2 Mitigation

The most pronounced impact is on category C trees. These have largely been unmanaged and are poorly located. Proposed works offer an opportunity to remove these before they present fail hazards and opens possibilities for new, more suitable, plantings.

A Tree Protection Strategy is provided as part of the arboricultural element of the submission with the aim of ensuring retained trees are maintained for the duration of the construction stage of the development free of negative

Category	Number	% of Category	% of total
A	0	0%	0%
B	23	24.4%	8.6%
C	113	80.6%	42.4%
U	10	100%	3.7%

Table 4. Tree Removal Categories

Schedule of trees for removal on private residential lands

Location	Species	Age class	ID #
Tower road (A92 V8X4) Area P	Sycamore <i>Acer pseudoplatanus</i>	Young	695
Tower road (A92 D762) Area D	Swedish whitebeam <i>Sorbus aria</i>	Early mature	693
Tower Road (A92 YXC1) Area J	Beech <i>Fagus sylvatica</i>	Young	685
Tower Road (A92 YXC1) Area J	Beech <i>Fagus sylvatica</i>	Early mature	686
Tower Road (A92 YXC1) Area J	Cherry cultivar <i>Prunus cv</i>	Mature	687
Tower Road (A92 P802) Area L	Birch <i>Betula pendula</i>	Young	684b
Tower Road (A92 P802) Area L	Cherry cultivar <i>Prunus cv</i>	Young	684b
Tower Road (A92 P802) Area L	Cherry cultivar <i>Prunus cv</i>	Young	684b

Table 5. *Eircode shown in brackets.

Schedule of hedges for removal on private residential lands

Location	Hedge ID	Image reference
Tower Road (A92 P9X8)	Area C	Image 9
Tower Road (A92 T3C9)	Area D	Image 10
Tower Road (A92 YXC1)	Area J	Image 15
Tower Road (A92 K2T3)	Area K	Image 16
Tower Road (A92 P802)	Area L	Image 17
Tower Road (A92 ND27)	Area M	Image 18

Table 6. *Eircode shown in brackets.

construction related impacts. Tree protection details and locations are shown on drawings TBOY003 111-115.

10. Tree Protection Strategy

This section is designed to outline the procedures which will be undertaken to effectively retain trees free from adverse construction impacts for the duration of the construction period on the site of proposed Greenway at between Drogheda and Mornington. The section is divided into sub-sections which begin at the pre-construction planning stage and follows on to post construction re-assessment of retained trees.

3.1 Key issues

Appointment of an arborist (Site Arborist) to oversee all works relevant to trees.

Scheduling of tree and construction works.

Establishment of tree protection (refer to drawings Tree Protection TBOY001 111-115).

Monitoring of tree protection (adherence to the Tree Protection Code of Practice).

Supervision of works in the vicinity of trees.

Post construction re-assessment of retained trees.

3.2. Consulting Arborist

A Site Arborist shall be appointed prior to the commencement of site construction works and will be responsible for the setting up and monitoring of tree protection, liaising with local authority tree/planning officers and providing feedback and advice to the design construction teams on issues relevant to trees. The Site Arborist shall be retained for the duration of construction works and should be appointed to carry out a post-construction tree survey/assessment.

3.3 Scheduling of works

3.3.1 Pre-construction meetings/tree works

- An onsite meeting will be held if required, with all relevant parties; including the Developer and or his Agents, Site Arborist and Local Planning Authority
- Remedial works to trees throughout the site where indicated as necessary within the Tree Works Schedule. All works will be undertaken to BS 3998 2010 Tree Work and/or to current best practice.
- Erection of tree protection fencing as per recommendations contained within BS 5837:2012 Trees in relation to design, demolition and construction -Recommendations. Tree protection to be erected under supervision of Site Arborist prior to main construction works being undertake on site (refer to drawings Tree Protection TBOY001 111-115).

3.3.2 Construction period

- The Site Arborist shall monitor tree protection.
- The Site Arborist shall specify any necessary remedial works to trees which may arise due to construction works.
- The Main Contractor shall carry out any instructions made by the Site Arborist with regard to the protection of retained trees and ensure where necessary that these instructions are followed by any sub-contractors.

4.3.3 Post construction works will consist of:

- Re-survey of retained trees and the implementation of measures contained within the survey document.

3.4 Preservation of Trees

3.4.1 Contractors obligations

The Contractor shall take all precautions to ensure that any trees which are not required to be taken down under the contract shall remain undisturbed and undamaged. All works to trees and all operations adjacent to trees should be undertaken in accordance with the Code of Practice. The Contractor must appoint a qualified arboricultural contractor to undertake all tree works subject to approval by the Consulting Arborist. The Contractor shall undertake no works to trees unless instructed by the Contract Administrator. All works on or within the Construction Exclusion Zone are to be supervised by the site arborist. Five working days notice of intention to undertake works to be given.

3.4.2 Setting out: Protected Tree Zone/Construction Exclusion Zone

The tree protection zone shall be set out in accordance with the Code of Practice (5) and as per drawings Tree Protection TBOY001 111-115. A notice 'Construction Exclusion Zone' shall be placed on tree protection fencing at regular intervals along the protective fencing. This notice shall include contact details for the Site Arborist. Strictly no access should be permitted to this zone unless instructed by the Site Arborist.

The Contractor is to maintain the protective fencing in good condition to the satisfaction of the Site Arborist for the duration of the contract. Any damage to fencing is to be reported to the Site Arborist immediately. Damaged fencing is to be repaired within 2 hours of the damage occurring. All works within the vicinity of the damaged fencing are to be suspended until the fencing is repaired.

3.4.3 Maintenance of Protected Tree Zone

The Site Arborist should be given 5 days notice of any works within or access required to this zone. The 'Protected Tree Zone' should under no circumstances be used for storage of materials, equipment, or site debris. No fires should be lit within the "Protected Tree Zone", or equipment washed or cleaned.

3.5. Code of Practice for the preservation of trees

The following specification is intended for the preservation of trees.

These guidelines will help sustain vigour and minimise adverse growing conditions for trees set out for retention.

3.5.1 Code of Practice notifications

The Code of Practice will be brought to the attention of all site personnel including those of the Main Contractor, Sub-Contractors and Engineering Specialists associated with the project.

All operations to be in accordance with BS 5837:2012 Trees in relation to design, demolition and construction -Recommendations.

The Contractor should purchase and make available on site a copy of the above

3.5.2 The Site Arborist:

- Supervise the installation of tree protection fencing.
- Supervise all tree works and assess on-going tree protection.
- Liaise with the relevant authorities during the project.
- Constantly monitor the project with regard to tree health to ensure that no damage is caused to the subject trees during the operational works.
- Report any negligent damage to trees which will prejudice their health.
- Monitor, where necessary, all works carried out by the Arboricultural Contractor and Main Contractor within the 'Protected Tree Zone'.

3.5.3 Arboricultural Contractor:

- Submit a full method statement containing machinery to be used, removal of wood etc. to the Site Arborist.
- Carry out works to the most up to date arboricultural practices available e.g. BS 3998. Recommendations for tree work (as amended).
- Undertake work only with suitably qualified operatives in constant consultation with the Site Arborist.
- Trees identified for removal will be section felled in wooded areas so as not to damage remaining trees.

3.5.4 Main Contractor:

- Appoint a member of staff to be responsible for tree protection and this person shall be the point of contact between the Main Contractor and the Site Arborist.
- Undertake all work in accordance with this specification.
- Ensure that all personnel, operatives, sub-contractors etc. are aware of this specification and operate accordingly
- Notify the Site Arborist of any potential conflicts that may affect the health, vigour and viability of trees.

3.5.5 Access:

Access to the site and service roads shall be agreed with the Site Arborist prior to commencement of works. Where it is deemed necessary for heavy machinery access the contractor shall refer to the guidelines within BS 5837 2012 and liaise with the Site Arborist to instigate the most appropriate root protection system.

3.6 Post Construction

A post construction report on the condition of trees should be undertaken and all recommendations made within this report should be carried out to BS3998 Tree Works.

Examples of above-ground stabilizing systems

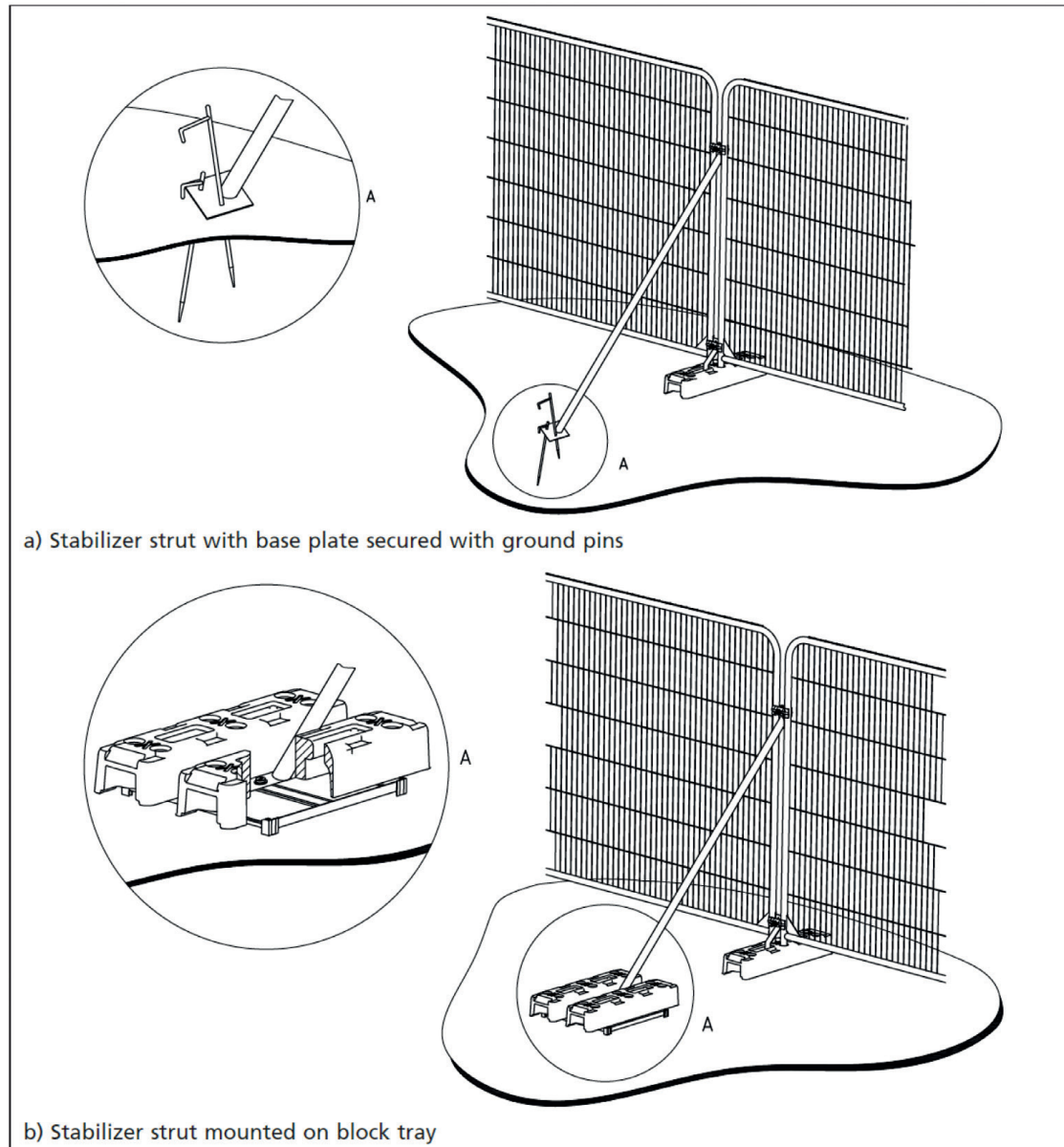


Image 22: Tree Protection Detail (Herras type fencing or similar approved).

BS 5837 (2012). Trees in Relation to Design Demolition and Construction

Fossit J. A. (2000). A guide to habitats in Ireland. Heritage Council

Mattheck and Breloer (1994). The body language of trees

