

Appendix A - Tree Schedule

Measurements	Age Classes	Quality Assessment of BS Category	ULE (relates to BS Category)
Height - Measured using a digital laser clinometer (m)	YNG: Establishing, typically with good vigour and fast growth rates and strong apical dominance; c. less than 1/3 life expectancy	Category U - Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.	<10 years
Stem Dia. - Diameter measured (mm) in accordance with Annex C of the BS5837	SM: Semi-mature trees less than 1/3 life expectancy	Category A - Trees of high quality with an estimated remaining life expectancy of at least 40 years.	40+ years
Crown Radius - Measured using a digital laser clinometer radially from the main stem (m)	EM: Established, typically vigorous and increasing in apical height and lateral spread; 1/3 - 2/3 life expectancy. Offers landscape significance	Category B - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.	20-40 years
Abbreviations est - Estimated stem diameter avg - Average stem diameter for multiple stems upto - Maximum stem diameter of a group	M: Fully established over 2/3 life expectancy, generally good vigour and achieving full height potential with crown still spreading	Category C - Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.	10-20 years
	OM: Fully mature, at the extremes of expected life expectancy, vigour decreasing, declining or moribund	Sub-categories: (i) - Mainly arboricultural value (ii) - Mainly landscape value (iii) - Mainly cultural or conservation value	
	V: biological, cultural or aesthetic value comprising niche saproxylic habitat. Individuals of large proportions (stem girth) in comparison to trees of the same species/surviving beyond the typical age range for their species.	The BS category particular consideration has been given to the following: • The presence of any structural defects in each tree/group and its future life expectancy • The size and form of each tree/group and its suitability within the context of a proposed development • The location of each tree relative to existing site features e.g. its screening value or landscape features • Age class and life expectancy	

Structural Condition	Physiological Condition
Good - No significant structural defects	Good - No significant health problems
Fair - Structural defects that can be remediated	Fair - Symptoms of ill-health that can be remediated
Poor - Significant defects beyond remediation, present a risk of failure in the foreseeable future	Poor - Significant ill-health. Unlikely the tree will recover in the long term
Dead - Dead tree with structural integrity of tree severely compromised	Advanced Decline / Dead - Advanced state of decline and unlikely to recover or Dead

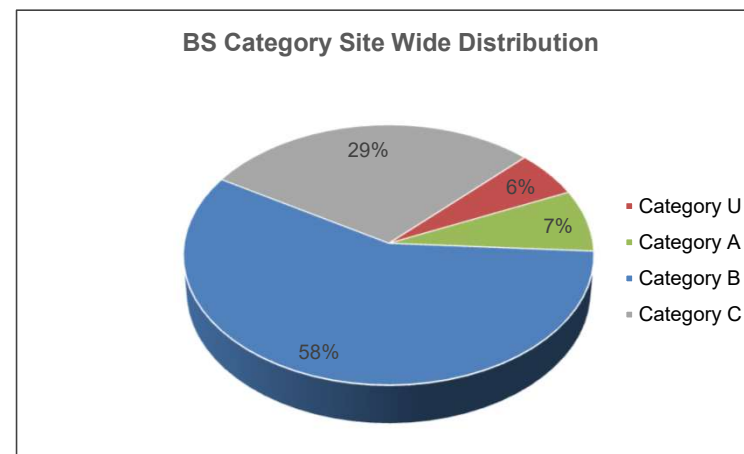
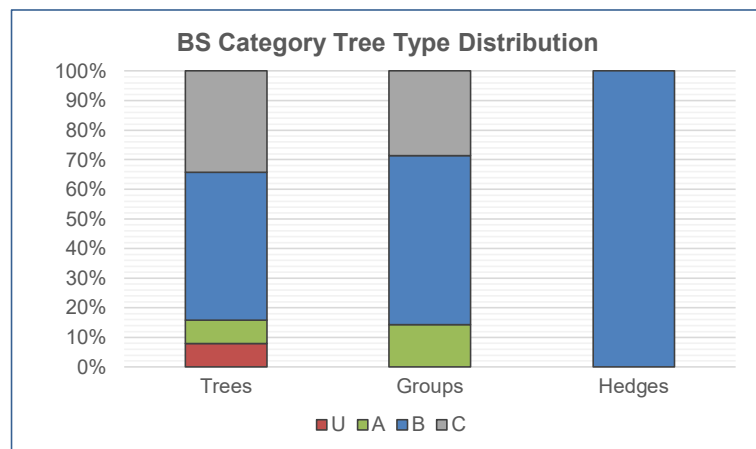
Root Protection Area (RPA)
• The RPA Radius column provides the extent of an equivalent circle from the centre of the stem (m). • The RPA is calculated using the formulae described in paragraph 4.6.1 of British Standard 5837: 2012 and is indicative of the rooting area required for a tree to be successfully retained. Tree roots extend beyond the calculated RPA in many cases and where possible a greater distance should be protected. • Where veteran trees have been identified the RPA has been calculated in accordance with Natural England guidance i.e. 15x the stem diameter, uncapped.

Appendix Summary

	Individual Trees	Totals	Tree Groups and Hedgerows	Totals
Category U	T5, T9, T27	3		0
Category A	T21, T22, T35	3	G6	1
Category B	T1, T2, T3, T4, T7, T8, T10, T11, T12, T13, T14, T15, T17, T18, T19, T23, T24, T25, T26, T38	19	G1, G2, G3, G5, H1, H2, H3, H4, H5, H6, H7	11
Category C	T6, T16, T20, T28, T29, T30, T31, T32, T33, T34, T36, T37	13	G4, G7	2
	Total	38	Total	14

BS Category Tree Type Distribution displays the proportion of trees assessed in each type to enable a better understanding of the category distribution.

BS Category Site Wide Distribution shows the proportion of trees assessed in each category across the whole site which allows an interpretation of the site's overall quality.



Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
INDIVIDUAL TREES										
T1	Horse Chestnut Aesculus hippocastanum	15	1120	9	M	F	Bark wounds noted on main stem mainly caused by livestock browsing damage Characteristic for species Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Poached ground and evidence of compacted ground at the base from livestock Pruning wounds noted from previous lower branch removals for clearance Typical crown form Exposed root buttresses from localised soil erosion	567	13.4	B (ii)
T2	Ash Fraxinus excelsior	17	680	N - 8 S - 11 E - 8 W - 6	M	F	Branch stubs evident likely to have been the result of wind loaded damage Minor dead wood evident in the crown (<75mm) Poached ground and evidence of compacted ground at the base from livestock Pruning wounds noted from previous lower branch removals for clearance Interlocked crown with T3	209	8.2	B (ii)
T3	Horse Chestnut Aesculus hippocastanum	14	960	N - 8 S - 9 E - 8 W - 10	M	F	Bark wounds noted on main stem mainly caused by livestock browsing damage Potential basal cavity observed with an entrance that leads to an area of what appears to be localised hollowing at ground level on the SW side of the stem Branch stubs evident likely to have been the result of wind loaded damage Characteristic for species Poached ground and evidence of compacted ground at the base from livestock Interlocked crown with T2 Minor dead wood evident in the crown (<75mm)	417	11.5	B (ii)
T4	Apple Malus domestica	11	510	N - 5 S - 5 E - 5 W - 7	M	F	Epicormic growth evident within the crown Minor dead wood evident in the crown (<75mm) Pruning wounds noted from previous lower branch removals for clearance	118	6.1	B (ii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T5	Hawthorn <i>Crataegus monogyna</i>	7	350	N - 4 S - 3 E - 3 W - 3	M	F	Numerous broken branches evident On the south side of the stem there is an entrance leading to an internal cavity and extensive hollowing Damaged area at bole which has comprised the structural integrity of the crown	N/A	N/A	U
T6	Hawthorn <i>Crataegus monogyna</i>	6	250	N - 3 S - 3 E - 2 W - 3	M	G	Basal suckers present Characteristic for species	28	3.0	C (ii)
T7	Sycamore <i>Acer pseudoplatanus</i>	10	530	N - 5 S - 6 E - 6 W - 6	M	G	Characteristic for species Crown had been topped at approximately 7-8m above ground level and has generated new crown growth atop the pruning points Minor dead wood evident in the crown (<75mm) In addition to the 'topping' there were other pruning wounds noted from previous lower branch removals for clearance	127	6.4	B (ii)
T8	Sycamore <i>Acer pseudoplatanus</i>	10	410	4	M	G	Barbed wire attached to stem Characteristic for species Pruning wounds noted from previous lower branch removals for clearance	76	4.9	B (ii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T9	Beech <i>Fagus sylvatica</i>	15	730	N - 9 S - 8 E - 9 W - 5	M	P	Bark wounds noted on main stem mainly caused by livestock browsing damage and where bark has been lost through delamination resulting from decay processes Branch stubs and several large broken branches evident likely to have been the result of wind loaded damage Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) North limb failure with resultant large wound scar which houses fungal brackets suspected to be a saprophytic species <i>Aurantiporus fissilis</i> (brackets viewed from ground level only. Recommend that confirmation of species is sought via aerial assessment) Further failed limbs to west and north east Stem leans significantly to the east and is heavily weighted in the east direction Suspected root plate movement as weight bias is causing tree to slowly subside Poached ground around base and evidence of bark damage to exposed basal root buttress flare Cut marks to the lower stem mostly likely caused by a chainsaw Reduced safe future life expectancy and potential contribution as a standing tree	N/A	N/A	U
T10	Beech <i>Fagus sylvatica</i>	14	680	N - 3 S - 9 E - 8 W - 8	M	F	Bark wounds noted on lower parts of the stem mainly caused by livestock browsing damage where bark has been removed exposing areas of heartwood Area of missing bark west facing on lower stem shows surface deterioration but decay at present does not extend beyond the surface in to the main body of the stem. Will need to be monitored for any further deterioration to ensure any risks are managed to acceptable levels. Action to be taken accordingly as deemed necessary and appropriate. Poached ground and evidence of compacted ground at the base from livestock Minor dead wood evident in the crown (<75mm) Stems leans slightly to the east A series of cut marks in lower stem caused most likely by a chainsaw	209	8.2	B (ii)
T11	Beech <i>Fagus sylvatica</i>	13	610	N - 5 S - 5 E - 7 W - 6	M	G	Bark wounds noted on lower parts of the stem mainly caused by livestock browsing damage Minor dead wood evident in the crown (<75mm) Pruning wounds noted Evidence of localised damage to several exposed near to surface roots	168	7.3	B (ii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T12	Beech Fagus sylvatica	10	520	6	M	G	Characteristic for species Minor dead wood evident in the crown (<75mm)	122	6.2	B (ii)
T13	Beech Fagus sylvatica	8	330	5	M	G	Broken branches evident, some of which have been the result of flail damage Low crown form Tree is growing on the south side of small soil bund which lines the road on the northern side Part of wider linear group of trees which have been planted along the northern side of the road	49	4.0	B (ii)
T14	Italian Alder Alnus cordata	11	430	5	M	G	Characteristic for species Tree is growing on the south side of small soil bund which lines the road on the northern side Broken branches evident, some of which have been the result of flail damage Basal wound facing SE on lower part of stem which shows some surface deterioration although does not penetrate significantly beyond the surface at the present time. Will need to be monitored for any further deterioration. At present, the wound shows good response with thick walls of callus tissue. Will need to be monitored for any further deterioration to ensure any risks are managed to acceptable levels. Action to be taken accordingly as deemed necessary and appropriate. Part of wider linear group of trees which have been planted along the northern side of the road	84	5.2	B (ii)
T15	Beech Fagus sylvatica	9	280	5	M	G	Broken branches evident, some of which have been the result of flail damage Characteristic for species Low crown form Tree is growing on the south side of small soil bund which lines the road on the northern side Part of wider linear group of trees which have been planted along the northern side of the road	35	3.4	B (ii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T16	Goat Willow <i>Salix caprea</i>	12	310 210 360 200	N - 8 S - 6 E - 5 W - 4	M	F	Included bark unions between stems close to ground level Multi stemmed from base Noted, there is a small sycamore growing on the north side of the stem close to the stem meaning crowns have become interlocked Strips of vertical missing bark on roadside stems most likely the result of branches being torn off by passing vehicles in the past Tree is growing on the south side of small soil bund which lines the road on the northern side Part of wider linear group of trees which have been planted along the northern side of the road	140	6.7	C (ii)
T17	Beech <i>Fagus sylvatica</i>	16	720	8	M	G	Bark wounds noted from mechanical damage Broken branches and branch stubs evident, resulting from crown lifting work for clearance above the road Characteristic for species Minor dead wood evident in the crown (<75mm) Pruning wounds noted Tree is growing on top of small soil bund which lines the road on the northern side Part of wider linear group of trees which have been planted along the northern side of the road although the beech is of greater age and thus could be an original hedgerow feature	235	8.6	B (ii)
T18	Beech <i>Fagus sylvatica</i>	15	770	8	M	G	Broken branches and branch stubs evident, resulting from crown lifting work for clearance above the road Characteristic for species Pruning wounds noted where branches have been removed for clearance above the road, south side of crown Stem leans to the north, slightly off vertical	268	9.2	B (ii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T19	Horse Chestnut Aesculus hippocastanum	17	880	N - 7 S - 10 E - 7 W - 6	M	F	Barbed wire attached to lower stem Bark wounds noted resulting from browsing damage by livestock and agricultural machinery Branch stubs evident Compacted ground at the base resulting from poaching by livestock Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Multi leadered form from a bole at c. 3m above ground level Storm and wind loaded crown damage present Central crown missing through historic limb failure Helical strip wound in bark of lower stem but only surface decay to exposed heartwood. Will need to be monitored for any further deterioration to ensure any risks are managed to acceptable levels. Action to be taken accordingly as deemed necessary and appropriate	350	10.6	B (ii)
T20	Horse Chestnut Aesculus hippocastanum	17	1030	N - 0 S - 12 E - 11 W - 7	M	P	Bark wounds noted from damage by browsing livestock and agricultural machinery Minor dead wood evident in the crown (<75mm) Storm and wind loaded crown damage present Major limb failure at 2m on north side with large wound scar displaying mushrooms suspected to be <i>Pleurotus ostreatus</i> Oyster Fungus Wooden post and rail fencing attached to stem Suspected hollowing to lower stem creating a cavity leading from an entrance at ground level SW side. Would need further detailed assessment to determine extent to ensure any risks are managed to acceptable levels. Action to be taken accordingly as deemed necessary and appropriate	480	12.4	C (ii)
T21	Beech Fagus sylvatica	20	940	N - 12 S - 8 E - 10 W - 10	M	G	Characteristic for species Exposed roots from soil erosion	400	11.3	A (ii)
T22	Beech Fagus sylvatica	24	1500	N - 11 S - 12 E - 15 W - 12	M	G	Very large specimen Characteristic for species Minor dead wood evident in the crown (<75mm) Raised root buttresses resulting from localised soil erosion and maturity creating stilt like structures Visible from the ground on the east trending limb there is a sizable longitudinal wound resulting from previous branch loss approximately 2m in length. Aerial assessment recommended to establish structural soundness to ensure any risks are managed to acceptable levels. Action to be taken accordingly as deemed necessary and appropriate	707	Capped at 15m	A (ii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T23	Sycamore <i>Acer pseudoplatanus</i>	13	600	N - 3 S - 6 E - 5 W - 7	M	F	Characteristic for species Planted on low soil bank Exposed roots close to trunk	163	7.2	B (ii)
T24	Beech <i>Fagus sylvatica</i>	16	890	N - 7 S - 5 E - 12 W - 7	M	F	Broken branches evident Characteristic for species Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Planted on low soil bank Exposed roots close to trunk	358	10.7	B (ii)
T25	Beech <i>Fagus sylvatica</i>	16	760	N - 8 S - 5 E - 9 W - 7	M	F	Broken branches evident Characteristic for species Minor dead wood evident in the crown (<75mm) Pruning wounds noted Fungal fruiting bodies present on open wound at the base of the stem facing east suspected to be <i>Kretzschmaria duesta</i> (<i>Ustulina duesta</i>). Further detailed testing would need to be undertaken to assess for structural soundness due to the presence of the fungus to ensure any risks are managed to acceptable levels. Action to be taken accordingly as deemed necessary and appropriate	261	9.1	C (ii)
T26	Beech <i>Fagus sylvatica</i>	12	430	N - 7 S - 3 E - 9 W - 3	EM	F	Characteristic for species One sided form to the north due to presence of adjacent tree	84	5.2	B (ii)
T27	Sweet Chestnut <i>Castanea sativa</i>	6	680	N - 2 S - 6 E - 5 W - 3	OM	P	Significant bark loss throughout the main body of the tree, main stem and major branches Leaning significantly to east and over the field Dead lowest lateral branch to the east Missing bark on main uprights Unbalanced weight to east Stunted form	N/A	N/A	U
T28	Hawthorn <i>Crataegus monogyna</i>	4	190	3	M	F	Characteristic for species	16	2.3	C (ii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T29	Hawthorn <i>Crataegus monogyna</i>	5	220	3	M	F	Characteristic for species	22	2.6	C (ii)
T30	Hawthorn <i>Crataegus monogyna</i>	7	430	3	M	F	Basal suckers present Characteristic for species	84	5.2	C (ii)
T31	Hawthorn <i>Crataegus monogyna</i>	4	220	N - 1 S - 2 E - 3 W - 1	M	F	Characteristic for species	22	2.6	C (ii)
T32	Hawthorn <i>Crataegus monogyna</i>	4	160 160 160	3	M	F	Characteristic for species Small hawthorn immediately to north side	35	3.3	C (ii)
T33	Ash <i>Fraxinus excelsior</i>	16	710	N - 4 S - 5 E - 6 W - 9	M	P	Branch stubs and broken branches evident resulting from wind loaded damage Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Northern side of lower crown partially absent and showing damage most likely caused by failure of adjacent beech	228	8.5	C (ii)
T34	Hawthorn <i>Crataegus monogyna</i>	5	300	3	M	F	Characteristic for species	41	3.6	C (ii)
T35	Beech <i>Fagus sylvatica</i>	18	900	N - 10 S - 10 E - 8 W - 7	M	G	Characteristic for species Minor dead wood evident in the crown (<75mm) Typical crown form	366	10.8	A (ii)
T36	Mountain Ash <i>Sorbus aucuparia</i>	5	140 80 80	3	EM	F	Basal suckers present Flail damage evident Multi stemmed from base	15	2.2	C (ii)
T37	Ash <i>Fraxinus excelsior</i>	5	90	1	SM	F	Flail damage evident	4	1.1	C (ii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T38	Beech Fagus sylvatica	12	600	N - 5 S - 6 E - 5 W - 5	M	F	Barbed wire attached to stem Bark wounds noted most likely resulting from mechanical impact by passing vehicles Minor dead wood evident in the crown (<75mm) Pruning wounds noted where branches have been removed for clearance above the road Large strip wound extending vertically for 4m from base of stem and 370mm wide exposing heart wood Decay to surface at present with signs of woodworm activity Limited penetration to main body of stem at present although will need to be monitored for further deterioration to ensure any risks are managed to acceptable levels. Action to be taken accordingly as deemed necessary and appropriate	163	7.2	B (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
GROUPS OF TREES										
G1	1 Beech Fagus sylvatica 2 Red Oak Quercus rubra	14	est 650	7	M	G	Branch stubs and broken branches evident Interlocking crowns Low crown forms Situating offsite Small collection of trees which forms part of a wider area of mixed species tree cover off site between the site and the National Grid station's eastern edge, stretching from the southern road to the northern extent	191	7.8	B (ii)
G2	Numerous Beech Fagus sylvatica English Oak Quercus robur Hawthorn Crataegus monogyna Silver Birch Betula pendula Mountain Ash Sorbus aucuparia Common Larch Larix decidua	17	est 400	6	M	G	Wtiolated forms due to close spacing Collection of trees closest to the site which forms part of a wider area of mixed species tree cover off site between the site and the National Grid station's eastern edge, stretching from the southern road to the northern extent	72	4.8	B (ii)
G3	Several MS Holly Ilex aquifolium	8	upto 300	4	M	G	Characteristic for species Interlocking crowns Low crown forms	41	3.6	B (ii)
G4	4 Hawthorn Crataegus monogyna	7	upto 370	5	M / OM	D / F	Characteristic for species Minor dead wood evident in the crown (<75mm) Northern specimens is dead	62	4.4	C (ii)
G5	2 Ash Fraxinus excelsior 1 Hawthorn Crataegus monogyna	18	upto 960	N - 7 S - 9 E - 8 W - 8	M	F	Branch stubs and broken branches evident resulting from wind loaded damaged Interlocking crowns Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Pruning wounds noted from branch removals for clearance	417	11.5	B (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G6	Beech Fagus sylvatica	16	upto 1200	12	M	G	Barbed wire attached to stem/s Branch stubs and broken branches evident resulting from wind loaded damage Browsing damage noted on main stem Characteristic for species Interlocking crowns Minor dead wood evident in the crown (<75mm)	651	14.4	A (ii)
G7	1 Beech Fagus sylvatica 1 English Oak Quercus robur	4	upto 70	1	Yng	F	Flail damage evident	2	0.8	C (ii)

Hedge No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
HEDGEROWS										
H1	Hawthorn Crataegus monogyna Holly Ilex aquifolium	1.5	upto 150	0.5	M	G	Maintained hedgerow Consolidated compact form	10	1.8	B (ii)
H2	Elder Sambucus nigra Hawthorn Crataegus monogyna	7	upto 350	3	M	G	Old laid forms visible within structure Outgrown hedgerow Note water filled ditch to west side A small section has been 'topped' to reduce the height of the growth below the pylons Well established forms	55	4.2	B (ii)
H3	Hawthorn Crataegus monogyna	1.5	200 150 100	0.5	M	G	Maintained hedgerow Consolidated compact form	33	3.2	B (ii)
H4	Hawthorn Crataegus monogyna Holly Ilex aquifolium	1.5	upto 380	0.5	M	G	Maintained hedgerow Consolidated compact form	65	4.6	B (ii)
H5	Hawthorn Crataegus monogyna Holly Ilex aquifolium	1.5	upto 180 100 150	0.5	M	G	Maintained hedgerow Consolidated compact form Old laid forms visible within structure Holly present only at westernmost end	29	3.1	B (ii)
H6	Elder Sambucus nigra Hawthorn Crataegus monogyna	1.5	upto 350	0.5	M	G	Maintained hedgerow Consolidated compact form Old laid forms visible within structure	55	4.2	B (ii)
H7	Hawthorn Crataegus monogyna	1.5	upto 180	0.5	M	G	Maintained hedgerow Consolidated compact form Old laid forms visible within structure	15	2.2	B (ii)