Whitwick Manor,

Yarkhill,

Hereford

Tree Constraints Report

Report Ref: 118/R/100

January 2024

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Tree Constraints Report
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P01	15/03/2022	BS5837:2012 Tree Survey Report	Marianne Dobson	
P02	18/01/2024	BS5837:2012 Tree Survey Report – additional trees surveyed to shelterbelts	Marianne Dobson	

Contents

1. INTRODUCTION

1.1 Scope of survey

MDLandscape have been instructed by STL Energy Ltd to conduct an arboricultural survey of trees on land at Whitwick Manor, Yarkhill, Hereford in the context of potential development. This report details the arboricultural constraints present at the site. Additional trees outside the survey area have been graphically indicated for context but have not been categorised. All trees are shown on the Tree Constraints Plans 118-T-100, 101,102, 103, 104, 105, 106 (Figures 2.0-2.6).

1.2 Survey methodology

The survey was carried out on 2nd February and undertaken in dry, cool conditions. Inspection was carried out from ground level by a qualified Arboriculturist and trees were assessed in accordance with *BS5837:2012 Trees in relation to design, demolition and construction – Recommendations*. Investigation to identify extent of cavities or decay detection was not undertaken, but further investigation may be recommended where appropriate. A return survey was carried out on 11th January 2024, to include trees to the north side of the shelterbelts, either side of the site access.

The survey method was undertaken as follows:

- A topographical survey was not available at the time of survey. Tree locations were: referenced using Bluesky aerial imagery prior to field survey and located using Garmin etrex touch 35 GPS equipment on site to within 1m accuracy;
- The trees were plotted as individuals, groups and woodland as appropriate and hedges were plotted to the canopy extents;
- Trees to the shelterbelt were tagged for reference, their locations are approximate and were measured using a laser distance measure and with reference to aerial photography;
- All trees over 75mm stem diameter at 1.5m above highest adjacent ground level within the survey area were surveyed;
- Crown spreads were measured to four cardinal points with a Disto laser distance measure and measurements noted to one decimal place;
- Height measurements were taken using clinometers and tree diameter measurements taken using a calibrated specialist diameter tape. Where this was not possible, heights and diameter measurements were estimated; and
- Planting beyond the survey area is also indicated on the Tree Constraints Plan for context. Where access to determine exact location was impeded, the locations were estimated.

The assessment identifies the trees potentially affected by development and discusses their suitability for retention on site. The assessment also identifies trees that are undesirable to retain because of structural or other defects, trees that can be retained with an acceptable level of risk in their current location and the measures that are required to ensure their long-term retention.

The British Standard recognises many additional factors will ultimately determine changes to the site, for example redevelopment or natural physical changes. Information in this report is presented in order to allow an informed judgement to be made on tree retention and removal and should not be interpreted rigidly.

This report includes the following:

- A schedule of all trees located within, or in close proximity to, the proposed working area (Appendix 1) noting:
    - Tree reference number and whether an individual tree, a group, a woodland or a hedge;
    - species type stating full common and latin name where identifiable;
    - height in metres;
    - stem diameter at-breast-height (dbh) in millimetres;
    - crown spread to four cardinal points in metres;
    - height of crown clearance in millimetres;
    - maturity – young, semi-mature; middle age; mature, over mature;
    - condition – good, fair, poor, veteran;
    - comments on physiological and structural form, condition, health and significant defects;
    - tree quality category as detailed in Table 2.0;
    - radius of the root protection area (RPA);
    - management recommendations; and
    - estimated remaining contribution in years – less than 10, 10-20, 20-40 and over 40.

- An assessment of trees, based on *BS 5837:2012* has been undertaken and trees have been categorised into one of four categories: A, B, C or U and illustrated in the Tree Constraints Plans 118-T-100, 101,102, 103, 104, 105, 106 (Figures 2.0-2.6). Locations of the trees are mapped, indicating their category, crown spread and Root Protection Area (RPA);
- An assessment of arboricultural constraints to current site operations and future proposed development and operations; and
- Advice on the management of trees based on their current condition and location.

2 THE SITE AND SURROUNDINGS

2.1 The site

The survey area is located on land centred on SO 60700 45861 at Whitwick Manor, Yarkhill, Hereford, as shown in figure 1.0. The site is agricultural land on a private estate with established designed planted groups, hedges, coppice, woodland and individual trees.

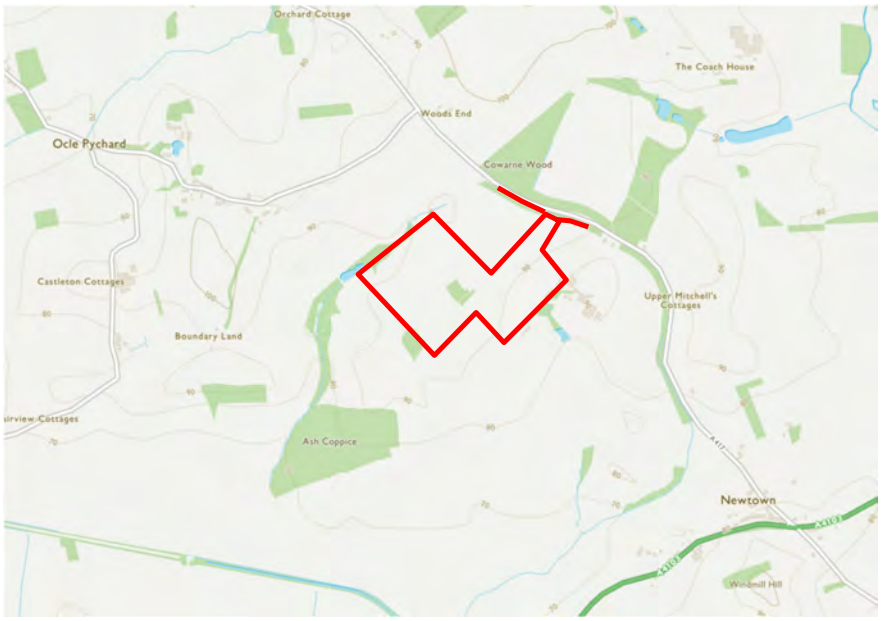

Figure 1.0 Site location - Contains ordnance survey data OS Maps: (ordnancesurvey.co.uk)

2.2 The surroundings

The landscape of the site is agricultural with small settlements and individual farmsteads beyond the survey area. The wider tree population includes ancient replanted woodland to the north at Cowarne Wood, ancient semi-natural woodland to the south at Ash Coppice, mature hedgerow trees and scattered field trees, small copses, shelterbelts, plantations and woodland.

2.3 Soil survey

A soil survey has not been undertaken as part of the tree survey. An examination of magic.defra.gov.uk website identifies the site soilscape as slightly acid loamy and clayey soils with impeded drainage with moderate to high natural fertility. The British Geological Survey website mapapps.bgs.ac.uk suggests an underlying variable bedrock and superficial geology of sandstone (St Maughan's formation), calcareous mudstone, and siltstone and mudstone. To the watercourse to the west, lies alluvium of clay, silt, sand and gravel.

3 STATUTORY DESIGNATIONS

3.1 Tree Preservation Orders & Conservation Area Designations

An examination of the Herefordshire online administrative map on 4th March 2022 confirms the site is not in a conservation area and no trees are currently the subject of a Tree Preservation Order (TPO). The website was reviewed in January 2024 and no changes were noted.

TPO conferred by Local Planning Authorities (LPA) to protect the amenity value of trees as individuals, in a group of trees or woodland. Unauthorised pruning, lopping, topping, felling, uprooting or wilful damage caused to a tree protected by a TPO is prohibited and may incur an unlimited fine and subject to prosecution. Works to trees protected by a TPO or within a conservation area, must only be carried out with the written consent of the Local Authority. This may take the form of a successful planning application where the removal of protected trees is clearly stated and agreed in the determination of the application or through a formal application process that requires a six-week notice period. Work must not be carried out within that period without consent. The LPA then has 6 weeks to decide whether the tree should be made the subject of a TPO. Applicants should contact the LPA if they are in any doubts about the procedures.

3.2 Protected Species

Trees and hedges are a potential habitat for nesting birds and roosting habitat for bats, both of which are protected under the *Wildlife and Countryside Act 1981* (as amended) and certain species under the *Conservation of Species and Habitat Regulations 2010*. This makes it an offence to intentionally or recklessly, damage or destroy an active birds' nest.

Several trees within the survey boundary may be suitable habitat for nesting birds and roosting habitat for bats, therefore all trees should be inspected for the absence or presence of nesting bird activity or presence of bats, before removal or major pruning work is carried out. A qualified Ecologist should be appointed to ensure a preliminary ecological assessment is undertaken.

Planning Considerations

In addition to statutory designations and protection, the planning system also confers importance on trees and woodland in the context of potential development. The National Planning Policy Framework states that: *development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused unless there are wholly exceptional reasons and a suitable compensation strategy exists.*

Tree Felling

When considering felling trees related to development, consents for tree felling may be required under different regimes, even if a planning application is not needed. These regimes include felling licences and Environmental Impact Assessments. The developer is responsible for ensuring that any necessary permissions, consents and permits are in place when required. If tree felling related to development is carried out without the necessary planning permission or felling permission, this may lead to enforcement action.

4 TREE QUALITY CATEGORISATION

Under BS 5837:2012 trees and groups are objectively assigned a quality category designed to quantify their value. Table 1 presents a summary of the categories presented in the British Standard. The full table has been reproduced.

Table 1 **Cascade chart for tree quality assessment**

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those 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	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.*			See Table 2
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
Trees to be considered for retention				
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	See Table 2
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	See Table 2
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 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	See Table 2

Table 1: Summary of *BS 5837:2012* tree quality categorisation criteria

5 TREE POPULATION AND CONDITION

5.1 Tree species and population

The trees surveyed include native and non-native species of deciduous and evergreen oak and maple, willow, ash, hawthorn, silver birch, field maple, sycamore, lime, horse chestnut, poplar, alder, Western red cedar, cherry, beech, larch, hazel and Scot's pine.

A total of 53 individual trees, 14 groups of trees, one woodland and 13 hedges were recorded as noted in the summary table, Table 2. The majority of trees, groups, woodland and hedge features are to boundaries with roads, tracks and fields and in relation to topographical and hydrological features of ponds, ditches and water courses.

5.2 Age class

There is a varied age class from young to over-mature, with some trees approaching early veteran status. The condition of trees at the time of survey was fair to good, with few trees noted as poor or unsuitable for retention.

5.3 Categorisation and value

Trees within the survey area have been identified within categories A, B and C. No category U trees were recorded individually, however two trees were noted in G5-B2 as unsuitable for retention. The tree population has a moderate to high amenity and landscape value overall with woodland and individual trees of high landscape or habitat value. Woodland W1 and trees T10, T11, T20, T22, T23, T25-T19, T30-T32, T35, T41, T42, T52 and group G7 are considered to be of high landscape and/or habitat value with the potential to have an estimated life expectancy beyond 40 years due to location, current condition and species. W1 is of particular value having green infrastructure connections to the ancient and semi-natural woodland of Ash Coppice to the south, beyond the survey area and wider conservation benefit.

The trees surveyed are detailed in the tree survey data sheets in Appendix 1 and as illustrated in the photographic record in Appendix 2.

	Tree Preservation Order or within Conservation Area	Category	Quantity
Individual trees	No	A B C U	16 18 19 0
	Individual trees recorded within groups G1 and G2 shelterbelts, tag ref 2000-2084 excluding tree 2000 (T5) and 2044 (T6)	A B C U	0 47 32 5
Groups	No	A B C U	1 10 3 0
Woodland	No	A B C U	1 0 0 0
Hedges	No		13

Table 2 – Summary of survey

6 DEVELOPMENT ASPECTS AND RECOMMENDATIONS

6.1 Habitats

Trees and hedgerows within the survey area will provide foraging habitat for both bats and birds. To minimise disturbance to these species, trees should be retained where possible.

6.2 Site planning

Tree root systems will increase incrementally with age and it is good practice to leave a larger area around a tree to allow for future root growth. Whether developing in the vicinity of existing trees or planning locations for new trees on development sites, consideration should be given to the potential rooting area relevant to the tree species. Sufficient soil or growing media and physical space should be assigned to ensure continued thriving or successful tree establishment.

6.3 Development and construction

During development and construction, the rooting system of trees can be potentially affected, with impacts on long term health and stability. Most development activity can have an impact on the future condition and safety of a tree and therefore careful planning and management of tree protection should aim to ensure a continued sustainable tree cover, with minimal stress to existing trees.

On this site, barriers to tree root growth are likely to include existing pavements and roads, retaining walls and buried structures if present, therefore the RPA is likely to be confined to existing soils. Tree root growth may also be impeded where ground levels have been increased due to site clearance works or adjacent development. Tree roots may be expected to grow unimpeded where existing soil levels remain undisturbed.

To ensure that the retained trees on site are properly protected during the development phase, the tree rooting zones are calculated and mapped onto the tree constraints plan in accordance with BS5837:2012. The RPA represents the rooting zone which, where possible, should remain undisturbed. The protection of retained trees can therefore be achieved by creating a Construction Exclusion Zone (CEZ) based on the RPAs.

Damage caused by any construction activity such as demolition, soil stripping and excavation needs to be considered at the design stage. Care should be taken to avoid damage to tree roots when existing structures such as tarmac surfaces are removed within the RPA of a tree.

The laying of access roads, driveways, parking areas or any other hard surfaces planned in proximity to retained trees needs to be considered. There are many solutions available to construct hard surfaces over RPAs without causing damage to trees.

Consideration must be given to movement of both vehicle and pedestrian traffic. If possible, traffic should be diverted away from the RPAs. If this is not possible a range of temporary surfaces are available to distribute the weight of traffic and allow the roots to receive moisture and air.

At this site, protection of trees should be by means of tree protection fencing, placed in accordance with the Root Protection Area to form a Construction Exclusion Zone and additional RPA ground protection if required, as shown in Appendix 3.

7 ARBORICULTURAL RECOMMENDATIONS

7.1 Tree work

All tree surgery work should be carried out by a qualified arboricultural contractor in accordance with BS 3998:2010 Tree work – Recommendations and current issued FISA Safety Guides (Forestry Industry Safety Accord).

Where pruning is thought to be necessary, the advice of an experienced Arborist or Arboriculturist should be sought to avoid potential long-term impacts from over pruning or the spread of diseases.

Removal of ivy growth may be considered where there is a need for more detailed inspection of a tree, or where there is concern that the extent of ivy may create a windsail effect with regard to tree stability. Ivy growth can create valuable habitat for insects, invertebrates, birds and bats and its removal should relate to the management aims for the tree and importance for wildlife conservation.

Fallen willow present in G5-B2 is recommended for removal due to potential risk of damage to existing trees. It is recommended that the cut timber is retained for habitat piles within the group.

Several trees within G1-B2 and G2-B2 have fallen or are leaning, with several hung up within other trees. It is recommended that where these trees are within falling distance of the A417 road, that the trees are either removed or cut down to a 4m high snag / pole, so that some habitat value can be retained for wood decay fungi, birds and invertebrates. Timber arisings could be cut and used to form habitat piles.

Refer to the tree survey sheet in Appendix 1 for details of arboricultural recommendations.

Where recommended, trees should be monitored annually or bi-annually for changes in health and condition. All tree work should be undertaken with due regard to ecological constraints and any mitigation requirements.

8 Mitigation Planting & Landscaping

8.1 Mitigation

Replacement tree planting should be considered to mitigate for removal of an existing screen or to replace amenity or biodiversity value that may be lost because of tree removal. There are opportunities on site to improve the composition and quality of existing tree groups that would enhance biodiversity and visual amenity.

Native trees and shrubs appropriate to the area are recommended, to be consistent with the vegetation of the locality and for the benefit of biodiversity and site ecology. However, it is appreciated that within the landscape context of the site, ornamental or cultivated species may also be appropriate.

The advice of a qualified Arboriculturist or Landscape Architect should be sought to ensure selection of suitable species and location on site regarding land use, buried services and knowledge of eventual tree height and spread at maturity. The amount, species composition and placement of new trees should be ultimately agreed with the landowner and / or Local Authority as appropriate.

8.2 Ongoing management

Trees are dynamic organisms that are influenced by natural and man-made changes to the environment around them. It is recommended that trees are inspected on an annual or biannual basis, to monitor changes in tree condition and for the presence of or development of potential hazards, particularly after high winds and storms or extreme weather events. Inspections of all retained trees should be undertaken by a qualified Arboriculturist and records of inspection held at the site.

9 SUMMARY

- The trees recorded in the survey area were generally found to be in a fair to good condition.

- The trees within the site have moderate to high value in the landscape, with woodland W1 and individual trees having high landscape, conservation and habitat value. A number of trees are over mature with the potential to develop as early veteran trees. The trees, groups, woodland and hedgerows provide links to wider green infrastructure and habitats.

- Based on an objective assessment made in accordance with *BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations*, the trees surveyed were valued as category A, B and C individuals, woodland and groups.

- The tree categorisation method identifies the quality and value of the existing tree stock. It is not meant to be interpreted rigidly but is presented to form a balanced judgement on tree retention and removal.

- Tree, woodland and group locations, their quality categories and RPA are shown on Tree Constraints Plans 118-T-100, 101,102, 103, 104, 105, 106 (Figures 2.0-2.6). The RPA should be used as a guide to the most likely position of tree roots at time of survey necessary for the successful retention of trees. Incursion into this area may reduce the chance of healthy tree survival.

- A woodland management strategy for groups G1-B2 and G2-B2 is recommended to ensure the longevity of the shelterbelt. There are opportunities to thin and underplant the groups to gradually reduce non-native species and underplant with native scrub and hazel to vary the understorey for the benefit of biodiversity, landscape and visual amenity and to enhance the shelterbelt structure.

- Tree root systems will increase incrementally with age and it is good practice to leave a larger area around a tree to allow for future root growth. When developing in the vicinity of existing trees and establishing new trees on development sites, consideration should be given to the potential rooting area in any site planning and design.

- Mitigation or replacement tree planting is recommended in the event trees are lost because of arboricultural management, health and safety measures or development reasons.

10 APPENDICES

APPENDIX 1 - ARBORICULTURAL SURVEY DATA SHEETS – refer to Tree Constraints Plans 118-T-100, 101,102, 103, 104, 105, 106 (Figures 2.0-2.6).

The information in the data sheets is correct as of time of survey. Trees are dynamic organisms and their condition can change as a result of changes in their environment, stress factors, physical and man-made conditions.

Tree ref	Species	Height	Stem dia.	Crown spread			Height of crown clearance	Maturity	Condition	Comments on form condition, health and significant defects	BS5837 Tree Quality Category	Radius of RPA	Management recommendations	Estimated remaining contribution
T - individual G - group W - Woodland H – Hedgerow Estimated locations and dimensions are in italics	*Latin name* Common name	m	mm		N		m	Young; Semi-mature; Middle Age; Early mature; Mature	Good; Fair; Poor; Veteran		A, B, C, U (1,2,3)	m		less than 10yrs, 10-20, 20-40, 40yrs+
				W		E								
					S									
HEDGES														
H1	Crataegus monogyna (hawthorn)	1.8							Good	Single species hedge; robust; intact; occasional gaps to base; well maintained to 1.8m high; forms field boundary with road; over 30 years old				
H2	Crataegus monogyna (hawthorn)	1.8							Good	Single species hedge; robust; intact; well maintained to 1.8m high; forms field boundary with planting; over 30 years old				
H3	Crataegus monogyna (hawthorn)	1.8							Good	Single species hedge; robust; short length of hedge; intact; well maintained to 1.8m high; forms field boundary with planting; over 30 years old				
H4	Crataegus monogyna (hawthorn)	1.8							Good	Single species hedge; robust; intact; occasional gaps to base; well maintained to 1.8m high; forms field boundary with road; over 30 years old				
H5	Crataegus monogyna (hawthorn)	1.6							Fair	Single species hedge; robust; intact; occasional gaps to base; well maintained to 1.6m high; over 30 years old				
H6	Crataegus monogyna (hawthorn)	1.6							Fair	Single species hedge; robust; intact; occasional gaps to base; well maintained to 1.6m high; over 30 years old				
H7	Crataegus monogyna (hawthorn)	4							Good	Overgrown hedge; leggy at base in places; over 30 years old				
	Acer campestre (field maple)													
	Sambucus nigra (elder)													
	Quercus robur (English oak)													

Tree ref	Species	Height	Stem dia.	Crown spread			Height of crown clearance	Maturity	Condition	Comments on form condition, health and significant defects	BS5837 Tree Quality Category	Radius of RPA	Management recommendations	Estimated remaining contribution
T - individual G - group W - Woodland H – Hedgerow Estimated locations and dimensions are in italics	*Latin name* Common name	m	mm	W	N S	E	m	Young; Semi-mature; Middle Age; Early mature; Mature	Good; Fair; Poor; Veteran		A, B, C, U (1,2,3)	m		less than 10yrs, 10-20, 20-40, 40yrs+
H8	Sambucus nigra (elder)	1.4							Fair	Low hedge; boundary to fields at different ground levels; occasional leggy and gappy at base; over 30 years old, low species diversity				
	Crataegus monogyna (hawthorn)													
H9	Crataegus monogyna (hawthorn)	5							Fair	Continuation of H6 but taller and less intensively managed; occasional leggy and gappy at base; over 30 years old, low species diversity				
	Acer campestre (field maple)													
H10	Crataegus monogyna (hawthorn)	1.8							Fair	Hedge maintained to face with field; robust, intact and in good condition				
	Acer campestre (field maple)													
H11	Crataegus monogyna (hawthorn)	1.6							Fair	Short length of single species hedge; maintained to face and height; leggy and gappy to base				
H12	Crataegus monogyna (hawthorn)	2							Good	Hedge maintained to face with field and to height; robust, intact and in good condition; pver 30 years old				
H13	Crataegus monogyna (hawthorn)	5							Fair	Overgrown hedge; leggy at base in places; over 30 years old; interspersed with groups and individual hedgerow trees				
TREES														
T1	Fraxinus excelsior (ash)	14	360	5.5	4.5 4.5	4.1	3	Middle Age	Good	Bifurcate at 2m; epicormic growth to stem; partially suppressed due to close spacing; upright slender growth	B2	4.32		20-40 years
T2	Fraxinus excelsior (ash)	14	420	4	4 6	6.5	4	Middle Age	Good	Bifurcate at 2m; asymmetric crown; minor dieback to lower branches	B2	5.04		20-40 years
T3	Carpinus betulus (hornbeam)	8	340	2	3.2 5.2	8	1	Early Mature	Fair	Bifurcate at 1.8m and with low side branch; minor broken branches and dead wood	C2	4.08	Remove lower side branch while still of small diameter	20-40 years
T4	Acer saccharinum (Silver maple)	14	380	3	2 6	7.5	3	Early Mature	Good	Species considered to be silver maple, due to bark and dead leaves; Tall vigorous growth; unidentified non-native maple	B2	4.56		20-40 years

Tree ref	Species	Height	Stem dia.	Crown spread			Height of crown clearance	Maturity	Condition	Comments on form condition, health and significant defects	BS5837 Tree Quality Category	Radius of RPA	Management recommendations	Estimated remaining contribution
T - individual G - group W - Woodland H – Hedgerow Estimated locations and dimensions are in italics	*Latin name* Common name	m	mm	W	N S	E	m	Young; Semi-mature; Middle Age; Early mature; Mature	Good; Fair; Poor; Veteran		A, B, C, U (1,2,3)	m		less than 10yrs, 10-20, 20-40, 40yrs+
T5 (tagged 2000)	Fraxinus excelsior (ash)	14	390	1.5	6.8 2.5	7.2	5	Early Mature	Good	Bifurcate at 2m, asymmetric crown; suppressed	B2	4.68		20-40 years
T6 (tagged 2044)	Quercus robur (English oak)	8	280	4.4	22	2	6	Early Mature	Good	Narrow, upright growth with high asymmetric crown	B2	3.36		20-40 years
T7	Fraxinus excelsior (ash)	6	140	3.8	2 1	1	5	Young	Fair	Narrow, upright growth with high asymmetric crown	C2	1.68		10-20 years
T8	Betula pendula (silver birch)	6	200	4	0 2.5	0	5	Semi-mature	Fair	Narrow, upright growth with high asymmetric crown	C2	2.4		10-20 years
T9	Quercus robur (English oak)	6	120	4	0 3	0	5	Young	Fair	Narrow, upright growth with high asymmetric crown	C2	1.44		10-20 years
T10	Quercus robur (English oak)	8	990	7	7.2 6.4	8	1	Over mature	Good	Significant tree with hollow stem; cavity to base; historic damage to base; epicormic growth to stem and pruning sites; possible previous pollard; tree of high importance in the landscape and habitat value; potential to develop into early stage veteran tree	A2, A3	11.88		40 years +
T11	Quercus robur (English oak)	12	1080	8.7	10.5 7.6	10.5	3	Over mature	Good	Significant tree with extensive ivy growth and roots girdling base of tree; lower branch tear out to west; cavities present; tree of high importance in the landscape and habitat value; potential to develop into early stage veteran tree	A2, A3	12.96		40 years +
T12	Quercus robur (English oak)	5	240	2.5	4 1	4.5	1	Semi-mature	Good	Low branching structure and suppressed to south; minor broken branches; tree of low value in the landscape	C2	2.88	T12 and T13 likely to impede each others growth and one likely to require removal in future years	10-20 years
T13	Acer capillipes (Red snake-bark maple)	5	160	2.8	1 3.2	3	1	Semi-mature	Good	Low branching structure and suppressed to north; no apical dominance; tree of low value in the landscape	C2	1.92	T12 and T13 likely to impede each others growth and one likely to require removal in future years	10-20 years
T14	Quercus robur (English oak)	5	290	3.4	3.4 3.8	5.4	2.5	Semi-mature	Good	No apical dominance, damage and loss of leader; tree of low value in the landscape	C2	3.48		10-20 years

Tree ref	Species	Height	Stem dia.	Crown spread			Height of crown clearance	Maturity	Condition	Comments on form condition, health and significant defects	BS5837 Tree Quality Category	Radius of RPA	Management recommendations	Estimated remaining contribution
T - individual G - group W - Woodland H – Hedgerow Estimated locations and dimensions are in italics	*Latin name* Common name	m	mm		N W S	 E	m	Young; Semi-mature; Middle Age; Early mature; Mature	Good; Fair; Poor; Veteran		A, B, C, U (1,2,3)	m		less than 10yrs, 10-20, 20-40, 40yrs+
T15	Quercus palustris (pin oak)	12	300	4.2	2.5 4	3	4	Early Mature	Good	Vigorous upright growth forming front of group approx 8m from track; tree of moderate value in the landscape	B2	3.6		20-40 years
T16	Pinus sylvestris (Scots pine)	14	520	2.5	2.5 2.5	2.5	10	Middle Age	Good	Vigorous upright growth; high crown; tree of moderate value in the landscape	B2	6.24		20-40 years
T17	Quercus palustris (pin oak)	12	300	3	2 2.2	3.4	10	Semi-mature	Good	Vigorous upright growth forming front of group approx 8m from track; tree of moderate value in the landscape	B2	3.6		20-40 years
T18	Quercus palustris (pin oak)	12	300	3	2 2	3	10	Semi-mature	Good	Vigorous upright growth forming front of group approx 8m from track;bifurcate at 1m; tree of low value in the landscape	B2	3.6		20-40 years
T19	Fagus sylvatica (beech)	4	550	3.8	4 5	4.8	1	Middle Age	Good	Multi-branching at 1m; ivy to base; tree of moderate value in the landscape	B2	6.6		20-40 years
T20	Fagus sylvatica (beech)	16	460	5.8	6.2 2.8	5	2	Middle Age	Good	Prominent tree to edge of group; good condition; tree of high value in the landscape	A1	5.52		40 years +
T21a	Salix fragilis (crack willow)	14	300 320	5	8 5	6.4	2	Middle Age	Fair	Willow bifurcate at base with ash growing at base; trees of low value in the landscape	C2	4.4	Expect that growth for both may be impeded in future; monitor health and vigour of both trees	10-20 years
T21b	Fraxinus excelsior (ash)	14	280					Semi-mature	Fair	Crown within spread of willow; basal damage to ash	C2	3.36		10-20 years
T22	Quercus robur (English oak)	14	1310	8	8 8.7	6.6	2	Over mature	Good	Significant tree; branch tears to south and east one major tear 2.5m long to base with hollowing to trunk evident; broken branches, dead wood; epicormic growth with further cavities in branches; crown in good health; self-pruning tree of high importance in the landscape and habitat value; potential to develop into early stage veteran tree	A2, A3	15.72		40 years +
T23	Fraxinus excelsior (ash)	16	1600	9.5	9 9.5	10.7	within group	Over mature	Veteran	over 1600 basal diameter; significant tree with spreading crown and hollows to trunk; multi-stemmed at 1m with 7 stems arising; potential veteran tree; tree of high value in the landscape and high habitat value	A2, A3	19.2		40 years +
T24	Salix fragilis (crack willow)	16	620	5	5.56	9.2	within group	Mature	Good	Open spreading crown; minor dead wood and broken branches; canopy edge to field flailed to a height of 3m; tree of moderate value in the landscape	B2	7.44		20-40 years

Tree ref	Species	Height	Stem dia.	Crown spread			Height of crown clearance	Maturity	Condition	Comments on form condition, health and significant defects	BS5837 Tree Quality Category	Radius of RPA	Management recommendations	Estimated remaining contribution
T - individual G - group W - Woodland H – Hedgerow Estimated locations and dimensions are in italics	*Latin name* Common name	m	mm	W	N S	E	m	Young; Semi-mature; Middle Age; Early mature; Mature	Good; Fair; Poor; Veteran		A, B, C, U (1,2,3)	m		less than 10yrs, 10-20, 20-40, 40yrs+
T25	Alnus glutinosa (alder)	20	1600	8.5	8.5 8.5	8.5	within group	Over mature	Good	Six stems arising from bole; located to west side of watercourse; significant tree, minor dead wood; tree of high value in the landscape and of particular merit	A2	19.2		40 years +
T26	Alnus glutinosa (alder)	20	1600	7	8 6	6.1	within group	Over mature	Good	15 stems arising at from bole; located to east side of watercourse; significant tree, minor dead wood; tree of high value in the landscape and of particular merit	A2	19.2		40 years +
T27	Quercus robur (English oak)	16	1100	8	7 8	11.6	within group	Over mature	Good	Significant tree; open spreading crown; positioned to base of ditch adjacent to watercourse; hung up branches in crown; tree of high value in the landscape and habitat value	A3	13.2		40 years +
T28	Quercus robur (English oak)	16	1200	10	9.8 11.8	15	3	Over mature	Good	Tree to west side of watercourse; open spreading crown; some lower branches pruned; ivy clad; split to limb in upper crown to north; tree of high value in the landscape	A3	14.4		40 years +
T29	Quercus robur (English oak)	14	900	8	7.2 9	8.2	3	Over mature	Fair	Broken out leader and damaged limbs; tree of moderate value in the landscape	B2	10.8		20-40 years
T30	Quercus robur (English oak)	18	1000	8	6 10	8	3	Over mature	Good	Significant tree to edge of woodland; tree of high value in the landscape and high habitat value	A2, A3	12		40 years +
T31	Quercus robur (English oak)	16	1600	9.7	9.5 10	7.5	3	Over mature	Good	over 1600 basal diameter; significant tree with spreading crown ; bifurcate at 1.8m with ivy to east stem; broken branches; tree of value in the landscape and high habitat value; potential early veteran tree	A3	19.2		40 years +
T32	Quercus robur (English oak)	16	720	7	6.8 7	7.4	1.2	Mature	Good	Upright form with spreading crown; broken branches; growing within hedgerow; tree of high value in the landscape	A2	8.64		40 years +
T33	Quercus robur (English oak)	12	400 380	5	4.7 3	4.1	3	Mature	Good	Bifurcate at 1.2m; major bark loss and damage to crown; tree of low value in the landscape	C2	5.5		10-20 years
T34	Quercus robur (English oak)	14	640	6.1	5 6	6.8	2	Mature	Good	Branch loss and dmaage to leader in upper crown; ivy growth; tree of moderate value in the landscape	B2	7.68		20-40 years
T35	Quercus robur (English oak)	16	1600	5.8	6.1 6.5	7.2	2.5	Over mature	Veteran	Bifurcate at 2m with open spreading crown; ivy growth to stem; close inspection impeded by ivy growth; tree of value in the landscape and high habitat value; potential early veteran tree	A3	19.2		40 years +

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T36	Quercus robur (English oak)	14	720	2	3.8 3	3	3	Mature	Poor	Major ivy growth throughout crown with sparse branch structure; die back and in decline; tree of low value in the landscape	C2	8.64		<10 years
T37	Acer pseudoplatanus (sycamore)	10	300 320 330	3	2 2	3	4	Middle Age	Poor	Multi-stemmed at base with 3 stems arising; bark loss to stems; die back; tree of low value in the landscape	C2	5.5		10-20 years
T38	Acer pseudoplatanus (sycamore)	8	600	4.2	5 5.9	4.5	2.5	Middle Age	Fair	Multi-stemmed at ground level with epicormic growth; tree of low value in the landscape	C2	7.2		10-20 years
T39	Tilia species	6	330	3.7	4 4	3.5	1	Middle Age	Good	Single stem with upright growth; lower branches have been flailed; tree of moderate value in the landscape	B2	3.96	Crown lift to raise for clearance for agricultural operations	20-40 years
T40	Crataegus monogyna (hawthorn)	6	450	4.4	2.6 2.6	1	0.5	Middle Age	Fair	Congested growth as is typical of species profile; flailed face to field; tree of low value in the landscape	C2	5.4		10-20 years
T41	Quercus robur (English oak)	14	840	7.2	6.6 5.4	8.5	3	Mature	Good	Significant tree with spreading crown and no major defects; tree of high value in the landscape	A2	10.08		40 years +
T42	Quercus robur (English oak)	16	1210	8.7	5.8 6.7	8	3	Over mature	Good	Significant tree with spreading crown and no major defects; potential to develop into early veteran; tree of high value in the landscape	A2	14.52		40 years +
T43	Quercus robur (English oak)	8	480	1	2 3	3.5	3	Middle Age	Poor	Located to corner of field; lost leader and dieback evident; in decline; tree of low value in the landscape	C2	5.76		10-20 years
T44	Quercus x hispanica 'Lucombeana' (Lucombe oak)	4	240	1.7	1.81.8	1.8	1	Semi-mature	Good	Single stem to 1.2m then multibranchinq with no apical dominance; tree of low value in the landscape	C2	2.88		10-20 years
T45	Fraxinus excelsior (ash)	14	330 340 330	5.8	5.4 5	4.6	3	Early Mature	Good	Single stem to 2m then three stems arising forming open spreading crown; tree of moderate value in the landscape	B2	5.8		20-40 years
T46	Populus balsamifera (Balsam poplar)	16	800	3	6.2 6	6.2	4	Mature	Fair	Slight lean to stem; broken branches and dead wood present with branch tear; tree of low value in the landscape	C2	9.6		10-20 years
T47	Populus balsamifera (Balsam poplar)	20	1000	3.5	11.8 8	10.5	4	Over mature	Good	Prominent upright tree with spreading crown; mistletoe present; tree of moderate value in the landscape	B2	12		20-40 years

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T48	Populus balsamifera (Balsam poplar)	10	400	2.6	4.5 5	3.2	4	Early Mature	Fair	Suppressed tree; tree of low importance in the landscape	C2	4.8		10-20 years
T49	Fraxinus excelsior (ash)	10	330	2	4 2	1	2	Early Mature	Fair	Suppressed with damaged leader; tree of low importance in the landscape	C2	3.96		10-20 years
T50	Populus balsamifera (Balsam poplar)	26	840	7.7	6.8 6	7	2	Mature	Good	Prominent upright tree with spreading crown; mistleoe present; tree of moderate value in the landscape	B2	10.08		20-40 years
T51	Corylus avellana (hazel)	6	850	3	1.5 1.5	3	0	Middle Age	Good	Multi-stemmed stand of hazel; dense and congested growth; tree of moderate value in the landscape	B2	10.2		20-40 years
T52	Quercus robur (English oak)	14	1080	7.9	4.8 7	6.2	2.5	Over mature	Fair	Significant tree adjacent to barn; upright with spreading crown; previous pruning wounds, dead wood and broken branches present; potential early veteran status; tree of high value in the landscape	A3	12.96		40 years +
TREES WITHIN SHELTERBELT TO FRONTAGE G1 AND G2 CATEGORY B2, TAGGED DURING SEPARATE SURVEY JANUARY 2024 - *ALL TREE LOCATIONS ESTIMATED, ALL CROWN SPREADS TAKEN FROM AERIAL PHOTOGRAPHY AND ARE ESTIMATED AS SHOWN ON THE TREE CONSTRAINTS PLAN*														
2000 (Tree T5)	Fraxinus excelsior (ash)	14	390	1.5	6.8 2.5	7.2	5	Early Mature	Good	Bifurcate at 2m, asymmetric crown; suppressed	B2	4.68		20-40 years
2001	Fraxinus excelsior (ash)		170	see Tree Constraints Plan				Semi-mature		Refer to general description for groups G1 and G2	C2	2.04	Refer to recommendations for groups G1 and G2	10-20 years
2002	Fraxinus excelsior (ash)		180					Semi-mature			C2	2.16		10-20 years
2003	Prunus avium (wild cherry)		230					Middle Age			B2	2.76		20-40 years
2004	Fraxinus excelsior (ash)		220					Middle Age			B2	2.64		20-40 years
2005	Fraxinus excelsior (ash)		270					Middle Age			B2	3.24		20-40 years
2006	Thuja plicata (Western red cedar)		360					Middle Age			B2	4.32		20-40 years
2007	Fraxinus excelsior (ash)		230					Middle Age			B2	2.76		20-40 years
2008	Larix decidua (European larch)		220					Middle Age			B2	2.64		20-40 years
2009	Fraxinus excelsior (ash)		200					Semi-mature			C2	2.4		10-20 years

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				W		E								
					S									
2010	Fraxinus excelsior (ash)		250					Middle Age			B2	3		20-40 years
2011	Fraxinus excelsior (ash)		150					Semi-mature			C2	1.8		10-20 years
2012	Fraxinus excelsior (ash)		230					Middle Age			B2	2.76		20-40 years
2013	Larix decidua (European larch)		210					Middle Age			U	2.52		
2014	Fraxinus excelsior (ash)		230					Middle Age			B2	2.76		20-40 years
2015	Fraxinus excelsior (ash)		330					Middle Age			B2	3.96		20-40 years
2016	Thuja plicata (Western red cedar)		290					Middle Age			B2	3.48		20-40 years
2017	Fraxinus excelsior (ash)		240					Middle Age			B2	2.88		20-40 years
2018	Fraxinus excelsior (ash)		220					Middle Age			B2	2.64		20-40 years
2019	Fagus sylvatica (beech)		170					Semi-mature			C2	2.04		10-20 years
2020	Fraxinus excelsior (ash)		330					Middle Age			B2	3.96		20-40 years
2021	Larix decidua (European larch)		290					Middle Age			B2	3.48		20-40 years
2022	Fraxinus excelsior (ash)		230					Middle Age			B2	2.76		20-40 years
2023	Larix decidua (European larch)		180					Semi-mature			C2	2.16		10-20 years
2024	Carpinus betulus (hornbeam)		310 290					Middle Age			C2	4.2		10-20 years
2025	Carpinus betulus (hornbeam)		260					Middle Age			B2	3.12		20-40 years
2026	Acer pseudoplatanus (sycamore)		200					Middle Age			B2	2.4		20-40 years
2027	Carpinus betulus (hornbeam)		240					Middle Age			B2	2.88		20-40 years
2028	Carpinus betulus (hornbeam)		170					Semi-mature			C2	2.04		10-20 years
2029	Carpinus betulus (hornbeam)		330					Middle Age			B2	3.96		20-40 years

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				W		E								
					S									
2030	Thuja plicata (Western red cedar)		420					Middle Age			B2	5.04		20-40 years
2031	Thuja plicata (Western red cedar)		270					Middle Age			B2	3.24		20-40 years
2032	Carpinus betulus (hornbeam)		220					Middle Age			B2	2.64		20-40 years
2033	Carpinus betulus (hornbeam)		340					Middle Age			B2	4.08		20-40 years
2034	Fraxinus excelsior (ash)		190					Semi-mature			C2	2.28		10-20 years
2035	Carpinus betulus (hornbeam)		330					Middle Age			B2	3.96		20-40 years
2036	Larix decidua (European larch)		190					Semi-mature			C2	2.28		10-20 years
2037	Acer pseudoplatanus (sycamore)		310					Middle Age			B2	3.72		20-40 years
2038	Carpinus betulus (hornbeam)		310					Middle Age			B2	3.72		20-40 years
2039	dead tree										U	0		
2040	dead tree										U	0		
2041	Fraxinus excelsior (ash)		130					Young			C2	1.56		10-20 years
2042	Fraxinus excelsior (ash)		120					Young			C2	1.44		10-20 years
2043	Fraxinus excelsior (ash)		270					Middle Age			B2	3.24		20-40 years
2044 (Tree T7)	Quercus robur (English oak)		230					Middle Age			B2	2.76		20-40 years
2045	Fraxinus excelsior (ash)		110					Young			C2	1.32		10-20 years
2046	Thuja plicata (Western red cedar)		220					Middle Age			C2	2.64		20-40 years
2047	Fraxinus excelsior (ash)		210					Middle Age			C2	2.52		20-40 years
2048	Fagus sylvatica (beech)		270					Middle Age			B2	3.24		20-40 years
2049	Fraxinus excelsior (ash)		160					Semi-mature			C2	1.92		10-20 years
2050	Thuja plicata (Western red cedar)		180					Semi-mature			C2	2.16		10-20 years

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				W		E								
					S									
2051	dead tree										U	0		
2052	Acer platanoides (Norway maple)		280					Middle Age			B2	3.36		20-40 years
2053	Fraxinus excelsior (ash)		270					Middle Age			B2	3.24		20-40 years
2054	Thuja plicata (Western red cedar)		340					Middle Age			B2	4.08		20-40 years
2055	Salix fragilis (crack willow)		440					Middle Age			C2	5.28		20-40 years
2056	Thuja plicata (Western red cedar)		440					Middle Age			B2	5.28		20-40 years
2057	Quercus robur (English oak)		300					Middle Age			B2	3.6		20-40 years
2058	Acer pseudoplatanus (sycamore)		210 200 130					Middle Age			U	3.2		20-40 years
2059	Fraxinus excelsior (ash)		170					Semi-mature			C2	2.04		10-20 years
2060	Fraxinus excelsior (ash)		170					Semi-mature			C2	2.04		10-20 years
2061	Fraxinus excelsior (ash)		180					Semi-mature			C2	2.16		10-20 years
2062	Fagus sylvatica (beech)		210					Middle Age			B2	2.52		20-40 years
2063	Fraxinus excelsior (ash)		160					Semi-mature			C2	1.92		10-20 years
2064	Fraxinus excelsior (ash)		130					Young			C2	1.56		10-20 years
2065	Larix decidua (European larch)		180					Semi-mature			B2	2.16		20-40 years
2066	Fraxinus excelsior (ash)		250					Middle Age			B2	3		20-40 years
2067	Fraxinus excelsior (ash)		210					Middle Age			B2	2.52		20-40 years
2068	Larix decidua (European larch)		240					Middle Age			B2	2.88		20-40 years
2069	Fraxinus excelsior (ash)		240					Middle Age			B2	2.88		20-40 years
2070	Fraxinus excelsior (ash)		250					Middle Age			B2	3		20-40 years
2071	Thuja plicata (Western red cedar)		350					Middle Age			B2	4.2		20-40 years

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2072	Fraxinus excelsior (ash)		170					Semi-mature			C2	2.04		10-20 years
2073	Prunus avium (wild cherry)		250					Middle Age			B2	3		20-40 years
2074	Larix decidua (European larch)		190					Middle Age			B2	2.28		20-40 years
2075	Prunus avium (wild cherry)		190					Middle Age			B2	2.28		20-40 years
THE FOLLOWING TREES WERE NOT TAGGED ON SITE														
2076	Fraxinus excelsior (ash)		180					Middle Age			C2	2.16		10-20 years
2077	Salix fragilis (crack willow)		300					Middle Age			C2	3.6		10-20 years
2078	Thuja plicata (Western red cedar)		150					Semi-mature			C2	1.8		10-20 years
2079	Thuja plicata (Western red cedar)		140					Semi-mature			C2	1.68		10-20 years
2080	Thuja plicata (Western red cedar)		140					Semi-mature			C2	1.68		10-20 years
2081	Fraxinus excelsior (ash)		120					Young			C2	1.44		10-20 years
2082	Thuja plicata (Western red cedar)		90					Young			C2	1.08		10-20 years
2083	Quercus robur (English oak)		120					Young			C2	1.44		10-20 years
2084	Fraxinus excelsior (ash)		130					Young			C2	1.56		10-20 years
GROUPS														
G1	Fraxinus excelsior (ash)	16	up to 450	as shown on plan				Middle Age	Good	Densely planted tall shelterbelt, 20m wide with trees planted in rows at approximately 2m centres, approx 40 years old; with varied broadleaved and evergreen species; a 20m length either side of the field track was surveyed; edge with field to south has been flailed encouraging thickening hedge like growth; some fallen and leaning individuals; slender and suppressed growth with high canopy formation; better stem growth and crown spread where there is less neighbouring competition for light; group of	B2	as shown on plan	Remove fallen trees and hung up timber - opportunity for creation of habitat piles	20-40 years
	Quercus robur (English oak)												Opportunities for thinning and underplanting to improve woodland structure and removal of non-native species	
	Prunus laurocerasus (Cherry laurel)												Potential to develop into category A group or woodland with	

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										moderate quality in the landscape; several trees leaning or fallen			appropriate woodland management	
	Fraxinus excelsior (ash)												Dead and leaning trees should be reduced to a snag (4m in height) to remove hazard and risk of falling towards road	
	Thuja plicata (Western red cedar)													
	Betula pendula (silver birch)													
	Salix caprea (goat willow)													
	Larix decidua (European larch)													
G2	Fraxinus excelsior (ash)	16	up to 450	as shown on plan				Middle Age	Good	Densely planted tall shelterbelt, 20m wide with trees planted in rows at approximately 2m centres, with varied broadleaved and evergreen species; a 20m length either side of the field track was surveyed; edge with field to south has been flailed encouraging thickening hedge like growth; some fallen and leaning individuals; slender and suppressed growth with high canopy formation; better stem growth and crown spread where there is less neighbouring competition for light; group of moderate quality in the landscape; several trees leaning or fallen	B2	as shown on plan	Remove fallen trees and hung up timber - opportunity for creation of habitat piles	20-40 years
	Quercus robur (English oak)												Opportunities for thinning and underplanting to improve woodland structure and removal of non-native species	
	Prunus laurocerasus (Cherry laurel)												Potential to develop into category A group or woodland with appropriate woodland management	
	Fraxinus excelsior (ash)												Dead and leaning trees should be reduced to a snag (4m in height) to remove hazard and risk of falling towards road	
	Thuja plicata (Western red cedar)													
	Betula pendula (silver birch)													
	Salix caprea (goat willow)													

Tree ref	Species	Height	Stem dia.	Crown spread			Height of crown clearance	Maturity	Condition	Comments on form condition, health and significant defects	BS5837 Tree Quality Category	Radius of RPA	Management recommendations	Estimated remaining contribution
T - individual G - group W - Woodland H – Hedgerow Estimated locations and dimensions are in italics	*Latin name* Common name	m	mm		N W S	 E	m	Young; Semi-mature; Middle Age; Early mature; Mature	Good; Fair; Poor; Veteran		A, B, C, U (1,2,3)	m		less than 10yrs, 10-20, 20-40, 40yrs+
	Larix decidua (European larch)													
	Corylus avellana (hazel)													
	Acer platanoides (Norway maple)													
G3	Salix species	9	up to 400	as shown on plan			1	Middle Age	Fair	Oak and crack willow growing immediately adjacent to each other and growing through each other; oak suppressed by willow; crossing branches; willow bifurcate at base with epicormic growth; moderate value in the landscape	B2	as shown on plan		20-40 years
	Quercus robur (English oak)													
G4	Acer campestre (field maple)	9	up to 250	as shown on plan			0	Early Mature	Good	linear group between track and pond along ditch; close centres possible from remnant hedge; moderate value in the landscape	B2	as shown on plan		20-40 years
	Crataegus monogyna (hawthorn)													
G5	Quercus robur (English oak)	16	up to 450	as shown on plan			0	Young	Poor	Native and non-native species forming group with larger individuals separately recorded; two fallen crack willow; group widens from linear feature to include younger planting; varied age class from young to mature and condition from poor to good; modrate value in the landscape	B2	as shown on plan		20-40 years
	Quercus ilex (holm oak)							to	to					
	Quercus palustris (pin oak)							Mature	Good					
	Quercus rubra (red oak)													
	Alnus glutinosa (alder)													
	Acer capillipes (Red snake-bark maple)													
	Acer campestre (field maple)													
	Aesculus hippocastanum (horse chestnut)													
	Prunus avium (wild cherry)													
	Salix fragilis (crack willow)													
G6	Acer campestre (field maple)	18	up to 500	as shown on plan			1	Middle Age	Good	Group of native and non-native species with understorey of dogwood and occasional holly; similar age class of middle age to early mature; tree loss to edge of group due to	B2	as shown on plan		20-40 years

Tree ref	Species	Height	Stem dia.	Crown spread			Height of crown clearance	Maturity	Condition	Comments on form condition, health and significant defects	BS5837 Tree Quality Category	Radius of RPA	Management recommendations	Estimated remaining contribution
T - individual G - group W - Woodland H – Hedgerow Estimated locations and dimensions are in italics	*Latin name* Common name	m	mm	W	N S	E	m	Young; Semi-mature; Middle Age; Early mature; Mature	Good; Fair; Poor; Veteran		A, B, C, U (1,2,3)	m		less than 10yrs, 10-20, 20-40, 40yrs+
	Cornus sanguinea (dogwood)									recent storm damage; moderate value in the landscape with more notable individuals separately recorded				
	Quercus robur (English oak)													
	Salix fragilis (crack willow)													
	Pinus sylvestris (Scots pine)													
	Betula pendula (silver birch)													
	Fraxinus excelsior (ash)													
	Ilex aquifolium (holly)													
	Fagus sylvatica (beech)													
	Prunus avium (wild cherry)													
G7	Betula pendula (silver birch)	12	average 180	as shown on plan			1	Semi-mature	Good	Single species group of good condition and vigour; of high value in the landscape	A2	as shown on plan		40 years +
G8	Fraxinus excelsior (ash)	18	up to 600	as shown on plan			1	Semi-mature	Good	Mixed species nnative group as linear feature along watercourse with significant mature individuals; group of high landscape and habitat value	B2	as shown on plan		20-40 years
	Acer campestre (field maple)							to						
	Sambucus nigra (elder)							Mature						
	Salix fragilis (crack willow)													
	Alnus glutinosa (alder)													
	Ilex aquifolium (holly)													
	Crataegus monogyna (hawthorn)													
	Corylus avellana (hazel)													
	Quercus robur (English oak)													
G9	Fraxinus excelsior (ash)	16	up to 700	as shown on plan			2	Mature	Fair	Group of three ash of varying condition with one blasted at the base, one bifurcate at base and one topped at 2.5m; group of low value in the landscape	C2	as shown on plan		10-20 years

Tree ref	Species	Height	Stem dia.	Crown spread			Height of crown clearance	Maturity	Condition	Comments on form condition, health and significant defects	BS5837 Tree Quality Category	Radius of RPA	Management recommendations	Estimated remaining contribution
T - individual G - group W - Woodland H – Hedgerow Estimated locations and dimensions are in italics	*Latin name* Common name	m	mm	W	N S	E	m	Young; Semi-mature; Middle Age; Early mature; Mature	Good; Fair; Poor; Veteran		A, B, C, U (1,2,3)	m		less than 10yrs, 10-20, 20-40, 40yrs+
G10	Sambucus nigra (elder)	5	up to 200	as shown on plan			0	Middle Age	Fair	Group forming edge to larger group of higher quality, probably former hedgerow now defunct and forming taller tree group; areas of dieback present with bark loss and squirrel damage to field maple; group of low quality in the landscape	C2	as shown on plan		10-20 years
	Crataegus monogyna (hawthorn)													
	Acer campestre (field maple)													
	Fraxinus excelsior (ash)													
G11	Acer campestre (field maple)	20	up to 450	as shown on plan			2	Middle Age	Good	One of each species forming group adjacent to track and at end of hedgerow; group of moderate value in the landscape	B2	as shown on plan		20-40 years
	Pinus sylvestris (Scots pine)													
	Salix fragilis (crack willow)													
	Fraxinus excelsior (ash)													
G12	Crataegus monogyna (hawthorn)	10	up to 600	as shown on plan			0	Middle Age	Fair	Group in area of wet ground; partially collapsed crack willow; close inspection not possible due to wet ground; group of low value in the landscape	C2	as shown on plan		10-20 years
	Populus balsamifera (Balsam poplar)													
	Salix fragilis (crack willow)													
G13	Quercus robur (English oak)	12	up to 500	as shown on plan			3	Early Mature	Fair	Three oak in line in hedgerow in varying condition, of more value as a group than individuals; of moderate value in the landscape	B2	as shown on plan		20-40 years
G14	Populus balsamifera (Balsam poplar)	30	up to 840	as shown on plan			4	Mature	Good	Single species group of approximately 60 individuals, mostly of uniform age with some smaller individuals and regularly spaced and planted approximately 5m centres; generally in good condition; some minor branch loss as is typical of species profile; groupf of moderate value in the landscape	B2	as shown on plan		20-40 years
WOODLAND														
W1	Quercus robur (English oak)	20	up to 1200	as shown on plan			0	Mature	Good	Established woodland with varied age class and understorey with notable mature individuals; extends from group along	A1	as shown on plan		40 years +

Tree ref	Species	Height	Stem dia.	Crown spread			Height of crown clearance	Maturity	Condition	Comments on form condition, health and significant defects	BS5837 Tree Quality Category	Radius of RPA	Management recommendations	Estimated remaining contribution
T - individual G - group W - Woodland H – Hedgerow Estimated locations and dimensions are in italics	*Latin name* Common name	m	mm	 W	N S	 E	m	Young; Semi-mature; Middle Age; Early mature; Mature	Good; Fair; Poor; Veteran		A, B, C, U (1,2,3)	m		less than 10yrs, 10-20, 20-40, 40yrs+
	Corylus avellana (hazel)									watercourse; woodland of high value in the landscape				
	Ilex aquifolium (holly)													
	Crataegus monogyna (hawthorn)													
	Sambucus nigra (elder)													
	Salix caprea (goat willow)													

APPENDIX 2 – PHOTOGRAPHIC RECORD

G1-B2 and H1

T10-A2,A3

G2-B2 and H2

G3-B2

G1 and G2 and trees either side of track

G5-B2 (left of picture) G6-B2 (right of picture)

T12-C2 and T13-C2

H4

G6-B6 up to H4

G6-B2 and T20-A1

G5-B2

G5 and T11-A2,A3

G5-B2 fallen tree

G6-B2

T22-A2,A3

G8-B2, G7-A2 (right of picture), T23-A2,A3, T24-B2, T25-A2, T26-A2

G8-B2, T25-A2, T26-A2T27-A3, T28-A3, T29-B2

T28-A3, T29-B2, W1-A1

G7-A2

T38-C2 and H11

T31-A3

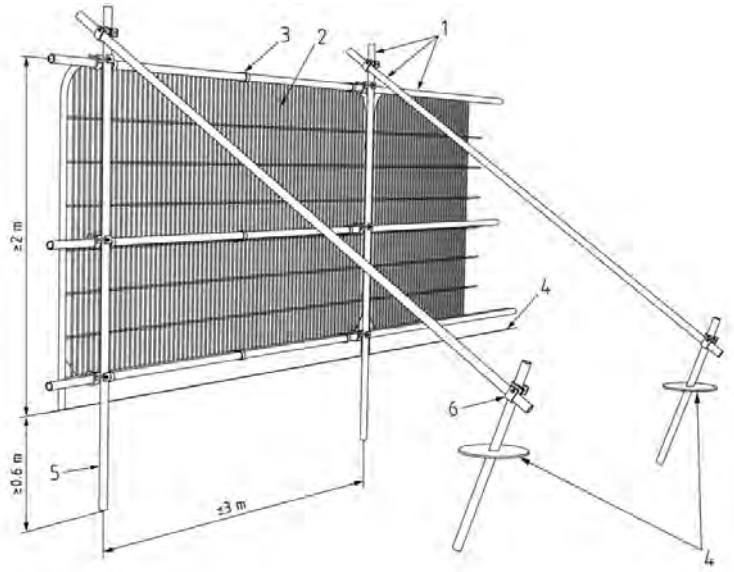
T42-A2 (left of picture), T41-A2, T40-C2, T39-B2 (right of picture)

G11-B2

G14-B2, T52-A3

APPENDIX 3 – EXAMPLES OF TREE PROTECTION SYSTEMS

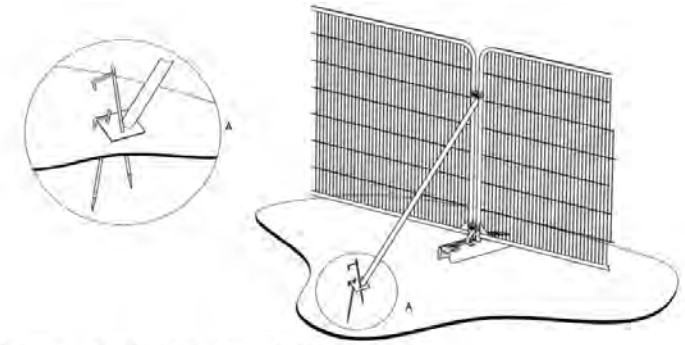
(Extracts taken from BS5837: (2012), “Trees in relation design, demolition and construction – Recommendations”.)



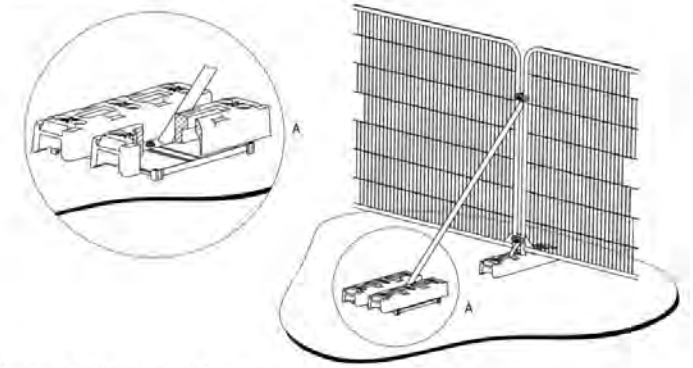
Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Default specification for protective barrier



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

APPENDIX 4 - GLOSSARY OF TERMS

Maturity
Newly planted - Not fully established and capable of being transplanted or easily replaced
Young - Establishing, usually with good vigour, still capable of being transplanted or replaced
Early mature - Established, usually vigorous and increasing in height
Semi-mature – Established with an overall height in excess of 4 metres and or a stem girth measurement (circumference) of 20 centimetres or larger;
Middle Age - Trees in the established growth stage of their life with the potential to continue increasing in size;
Mature - Trees that have reached their ultimate size, given their location and surroundings;
Over-mature - Fully mature, in last quarter of life expectancy, vigour decreasing

Condition
Good, Fair, Poor. An overall assessment of a tree's physiological and structural state.

Veteran
Trees that have biological, cultural or aesthetic value due to age and / or condition. Typically trees that may be living beyond their expected age range for their species.

BS 5837 Tree Quality Assessment
The tree quality assessment is based on four categories (A, B, C and U) are used to denote tree quality (A= High, B = Moderate, C = Low, U= Unsuitable for retention).
Subcategories (1-3) denote the specific function value of the trees and the reasoning behind the allocation of a specific category.

Root Protection Area (RPA)
The theoretical rooting area of a tree as defined in *BS5837: 2012* . RPA is allocated to ensure that a sufficient area is left undisturbed during development. It is provided as an area (m^2) and as the radius of a circle (m) typically plotted from the centre of the stem.

Estimated Remaining Contribution
The approximate life expectancy as healthy functioning tree and relates to species and the condition of the tree at the time of survey.
Long > 40 years
Medium 20 – 40 years
Short – Medium 10- 20 years
Short - Imminent removal <10years

Adventitious or Epicormic shoots
Small branches that grow in clusters around the stem or base of a tree in an uncharacteristic fashion for a normally healthy tree, usually at the site of pruning wounds or as an indicator of stress.

Bifurcate
Divided into two branches or forks.

Buckling
Deformation of a structure subjected to a bending load Buttress zone, irreversible.

Chalara – Ash dieback
Chalara dieback of ash, also known as Chalara or ash dieback, is a disease of ash trees caused by a fungus called *Hymenoscyphus fraxineus*

Decurrent
The tree crown is borne on several major wide spreading limbs of similar size

Defect
A feature which detracts from the uniform distribution of mechanical stress, or which makes the tree mechanically unsuited to its environment.

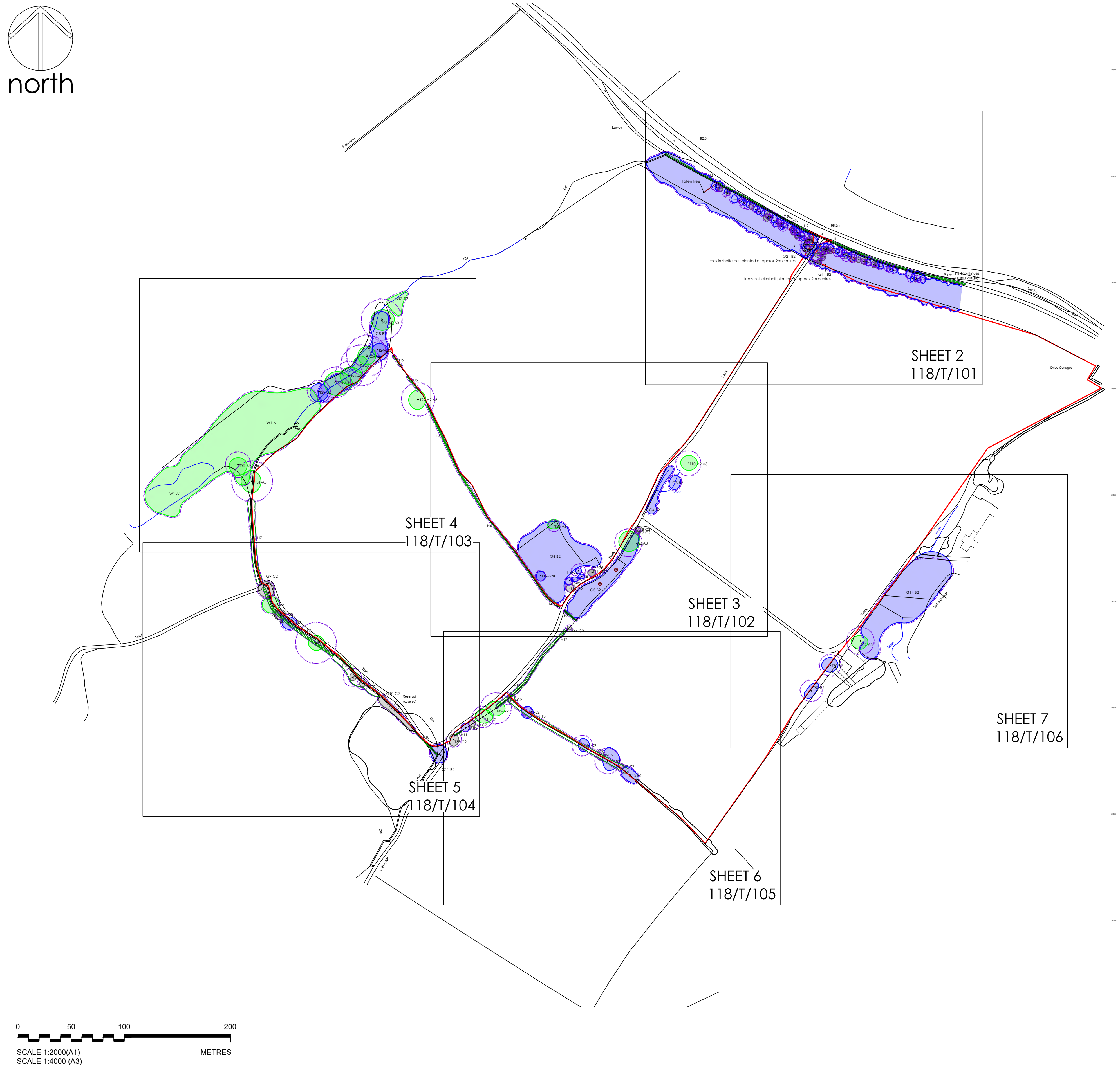
Dieback
A condition in which a tree or shrub begins to die from the tip of its leaves or roots backwards, owing to disease or an unfavourable environment

Disease
A malfunction or destruction of tissues usually caused by pathogens.

Dominance
The tendency for a leading shoot to grow faster than the lateral shoots; also a tree that maintains a taller crown than its neighbours.
Excurrent
A well-defined central main stem to the crown, bearing branches which are limited in their length, diameter and secondary branching.
Flush-cut
A pruning cut which removes part of the branch bark ridge and or branch-collar.
Girdling root
A root which circles and constricts the stem.
Hazard beam
An upward curving part of a tree in which strong internal stresses may occur without being reduced by adaptive growth; prone to longitudinal splitting or may form a banana shaped crack.
Included bark (ingrown bark)
Bark of adjacent parts of a tree (usually forks, acutely joined branches or basal flutes) which is in face-to-face contact.
Infection
The establishment of a parasitic micro-organism in the tissues of a tree or other organism.
Lopping
Removal of large branches from a tree that does not follow natural target pruning practices
Natural target pruning
The siting of pruning cuts at the branch bark ridge with a cut of minimal surface area to allow quicker healing of the wound
Occlusion
The process of continual radial growth and healing of a wound which is progressively closed by the formation of new wood and bark around it.
Plant pathogen
Infectious organism that causes a disease on a plant. Although relatives of some plant pathogens are human or animal pathogens, most plant pathogens only harm plants. Plants are rarely cured of disease once infected.
Pollarding
The removal of the tree canopy, back to the stem or primary branches. The management regime is usually repeated as part of a regular management programme.
Primary branch
A major branch, of greater order than secondary branches.
Pruning
The removal or cutting back of lesser branches or twigs
Reactive Growth/Reaction Wood
Production of woody tissue in response to mechanical stresses
Root-collar
The transitional area between the stem/s and roots prior to development of a root flare or buttress.
Secondary branch
A branch, of lower order than primary branch.
Veteran tree
An aged old specimen that has features which increase its value as habitat for wildlife (dead wood, cavities etc.) irrespective of its chronological age and that is of interest biologically, culturally or aesthetically because of its age, size or condition, is usually of advanced age
Windthrow
The fall of a tree in high wind, blowing over of a tree at its roots.
Wound wood
Wood developing in response to a wound which gradually heals and occludes the wound.

11 FIGURES

Tree Constraints Plans 118-T-100, 101,102, 103, 104, 105, 106 (Figures 2.0-2.6).



Notes

1. Dimensions are given in metres and millimetres as stated on the drawing.
2. Grid reference of site is located at approximately 360612,245822 .
3. Drawing must be reproduced in colour.

Legend

Trees categorised in accordance with *BS5837:2012 Trees in relation to design, demolition and construction : Recommendations*
This drawing must be reproduced in colour

- CATEGORY A - high quality
- CATEGORY B - moderate quality
- CATEGORY C - low quality
- CATEGORY U - unsuitable for retention
- HEDGE - CANOPY EXTENTS
- HEDGE CENTRE LINE
- TREE, GROUP, WOODLAND OUTSIDE SURVEY EXTENTS
- ROOT PROTECTION AREA (RPA)
- T, G, W, H — REFERENCE tree, group, woodland, hedge
- # — APPROXIMATE TREE LOCATION
- SURVEY EXTENTS

Drawing references

118/T/101 TREE CONSTRAINTS PLAN SHEET 2 OF 7
118/T/102 TREE CONSTRAINTS PLAN SHEET 3 OF 7
118/T/103 TREE CONSTRAINTS PLAN SHEET 4 OF 7
118/T/104 TREE CONSTRAINTS PLAN SHEET 5 OF 7
118/T/105 TREE CONSTRAINTS PLAN SHEET 6 OF 7
118/T/106 TREE CONSTRAINTS PLAN SHEET 7 OF 7

OS LICENCE

Serial number: 232134

Project	WHITWICK MANOR - AD PLANT	Dwg No	118/T/100				
Title	TREE CONSTRAINTS PLAN - SHEET 1 OF 7	Scale	1:2000 @ A1 / 1:4000 @ A3	Date	04/03/2022	Drawn	MD

Revision	Date	Reason	Initials
P01.1	04/03/2022	DRAFT FOR INFORMATION	MD

mdlandscape
6 Kinderton Close | High Legh | Knutsford
Cheshire | WA16 6LZ | 07710 498231

north

92.3m

H2

fallen tree

0.91m RH

H2

95.2m

H1

G2 - B2

trees in shelterbelt planted at approx 2m centres

G1 - B2

trees in shelterbelt planted at approx 2m centres

A 417

H1 (continues along verge)

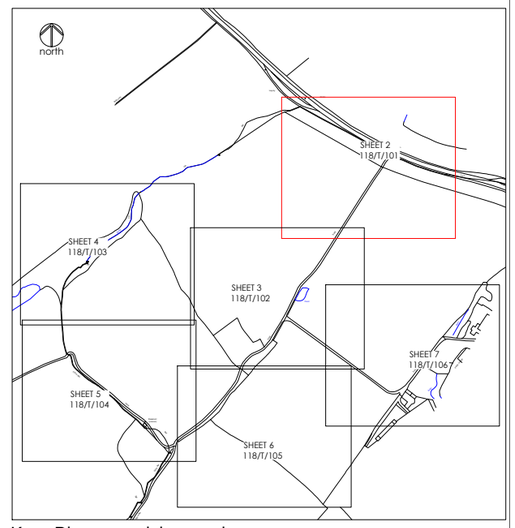
Track

0 10 20 30 40 50

SCALE 1:500 (A1)
SCALE 1:1000 (A3)
METRES

Notes

1. Dimensions are given in metres and millimetres as stated on the drawing.
2. Grid reference of site is located at approximately 360612,245822 .
3. Drawing must be reproduced in colour.



Key Plan - not to scale

Legend

Trees categorised in accordance with *BS5837:2012 Trees in relation to design, demolition and construction : Recommendations*
This drawing must be reproduced in colour

- CATEGORY B - moderate quality
- CATEGORY C - low quality
- CATEGORY U - unsuitable for retention
- HEDGE - CANOPY EXTENTS
- HEDGE CENTRE LINE
- TREE, GROUP, WOODLAND OUTSIDE SURVEY EXTENTS
- ROOT PROTECTION AREA (RPA)
- T, G, W, H — REFERENCE tree, group, woodland, hedge
- # — APPROXIMATE TREE LOCATION
- •2059 — TREES TO SHELTERBELT IN GROUPS G1 AND G2 HAVE BEEN IDENTIFIED WITH TAGS (2000 - 2075) ALL LOCATIONS ARE ESTIMATED

Drawing references

118/T/100 TREE CONSTRAINTS PLAN SHEET 1 OF 7
118/T/102 TREE CONSTRAINTS PLAN SHEET 3 OF 7
118/T/103 TREE CONSTRAINTS PLAN SHEET 4 OF 7
118/T/104 TREE CONSTRAINTS PLAN SHEET 5 OF 7
118/T/105 TREE CONSTRAINTS PLAN SHEET 6 OF 7
118/T/106 TREE CONSTRAINTS PLAN SHEET 7 OF 7

OS LICENCE

Serial number: 232134

Project	WHITWICK MANOR - AD PLANT	Dwg No	118/T/101			Revision	Date	Reason	Initials
Title	TREE CONSTRAINTS PLAN - SHEET 2 OF 7	Scale	1:500 @ A1 / 1:1000 @ A3	Date	04/03/2022	P01.1	04/03/2022	DRAFT FOR INFORMATION	MD
				Drawn	MD				

mdlandscape
6 Kinderton Close | High Legh | Knutsford
Cheshire | WA16 6LZ | 07710 498231

north

2,A3

H4

Track

T10-A2,A3

G3-B2

Pond

G4-B2

H4

T20-A1

T13-C2

T12-C2

T11-A2,A3

G6-B2

Track

T21a-C2

T21b-C2

T16-B2

T18-B2

T19-B2#

T17-B2

T15-B2

T14-C2

G5-B2

H4

H3

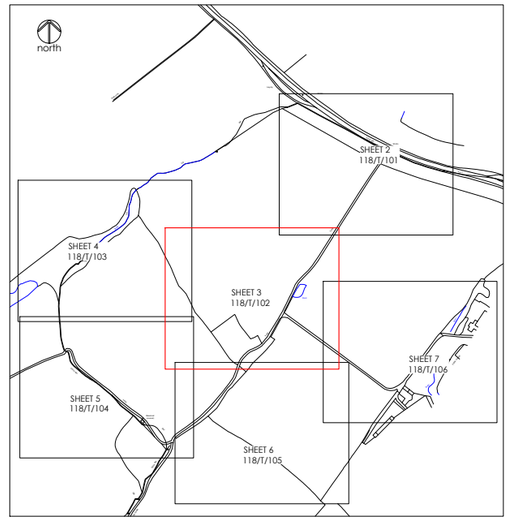
0 10 20 30 40 50

SCALE 1:500 (A1)
SCALE 1:1000 (A3)

METRES

Notes

1. Dimensions are given in metres and millimetres as stated on the drawing.
2. Grid reference of site is located at approximately 360612,245822 .
3. Drawing must be reproduced in colour.



Key Plan - not to scale

Legend

Trees categorised in accordance with *BS5837:2012 Trees in relation to design, demolition and construction : Recommendations*
This drawing must be reproduced in colour

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- CATEGORY B - moderate quality
- CATEGORY C - low quality
- CATEGORY U - unsuitable for retention
- HEDGE - CANOPY EXTENTS
- HEDGE CENTRE LINE
- ROOT PROTECTION AREA (RPA)
- T, G, W, H — REFERENCE tree, group, woodland, hedge
- # — APPROXIMATE TREE LOCATION

Drawing references

118/T/100 TREE CONSTRAINTS PLAN SHEET 1 OF 7
118/T/101 TREE CONSTRAINTS PLAN SHEET 2 OF 7
118/T/103 TREE CONSTRAINTS PLAN SHEET 4 OF 7
118/T/104 TREE CONSTRAINTS PLAN SHEET 5 OF 7
118/T/105 TREE CONSTRAINTS PLAN SHEET 6 OF 7
118/T/106 TREE CONSTRAINTS PLAN SHEET 7 OF 7

OS LICENCE

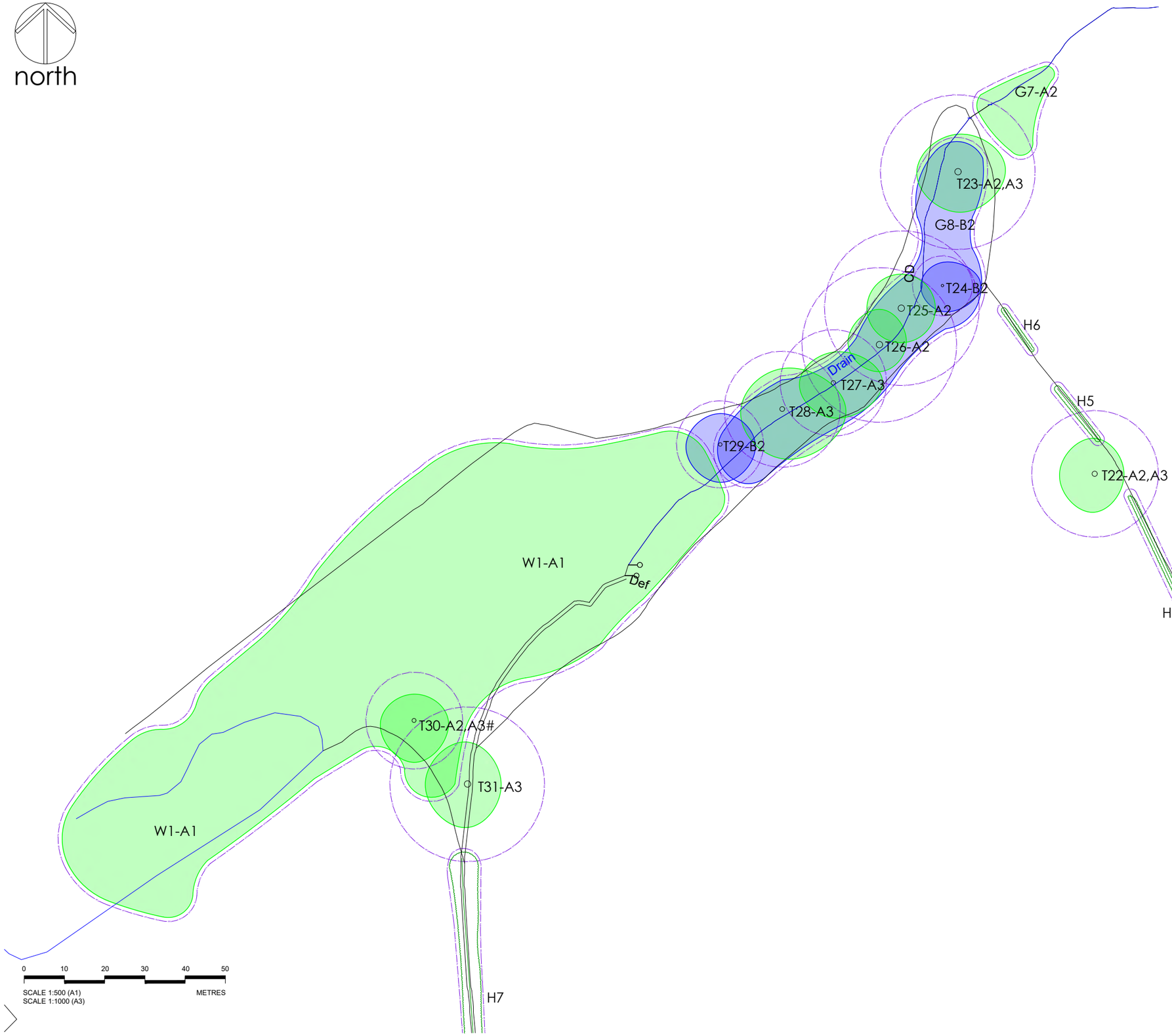
Serial number: 232134

Project	WHITWICK MANOR - AD PLANT	Dwg No	118/T/102				
Title	TREE CONSTRAINTS PLAN - SHEET 3 OF 7	Scale	1:500 @ A1 / 1:1000 @ A3	Date	04/03/2022	Drawn	MD

Revision	Date	Reason	Initials
P01.1	04/03/2022	DRAFT FOR INFORMATION	MD

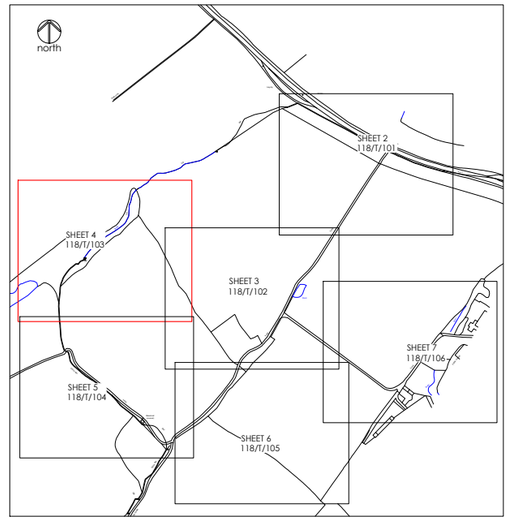
mdlandscape
6 Kinderton Close | High Legh | Knutsford
Cheshire | WA16 6LZ | 07710 498231

north



Notes

1. Dimensions are given in metres and millimetres as stated on the drawing.
2. Grid reference of site is located at approximately 360612,245822 .
3. Drawing must be reproduced in colour.



Key Plan - not to scale

Legend

Trees categorised in accordance with BS5837:2012 Trees in relation to design, demolition and construction : Recommendations
This drawing must be reproduced in colour

- CATEGORY A - high quality
- CATEGORY B - moderate quality
- HEDGE - CANOPY EXTENTS
- HEDGE CENTRE LINE
- ROOT PROTECTION AREA (RPA)
- T, G, W, H — REFERENCE tree, group, woodland, hedge
- # — APPROXIMATE TREE LOCATION

Drawing references

118/T/100 TREE CONSTRAINTS PLAN SHEET 1 OF 7
118/T/101 TREE CONSTRAINTS PLAN SHEET 2 OF 7
118/T/102 TREE CONSTRAINTS PLAN SHEET 3 OF 7
118/T/104 TREE CONSTRAINTS PLAN SHEET 5 OF 7
118/T/105 TREE CONSTRAINTS PLAN SHEET 6 OF 7
118/T/106 TREE CONSTRAINTS PLAN SHEET 7 OF 7

OS LICENCE

Serial number: 232134

Project	WHITWICK MANOR - AD PLANT	Dwg No	118/T/103				
Title	TREE CONSTRAINTS PLAN - SHEET 4 OF 7	Scale	1:500 @ A1 / 1:1000 @ A3	Date	04/03/2022	Drawn	MD

Revision	Date	Reason	Initials
P01.1	04/03/2022	DRAFT FOR INFORMATION	MD

mdlandscape
6 Kinderton Close | High Legh | Knutsford
Cheshire | WA16 6LZ | 07710 498231

north

H7

G9-C2

T32-A2

T33-C2

0.91m RH

T34-B2

H8

T35-A3

Track

H9

T36-C2

T37-C2

G10-C2

Reservoir
(covered)

Def

H10

H11

T38-C2

G11-B2

0.91m RH

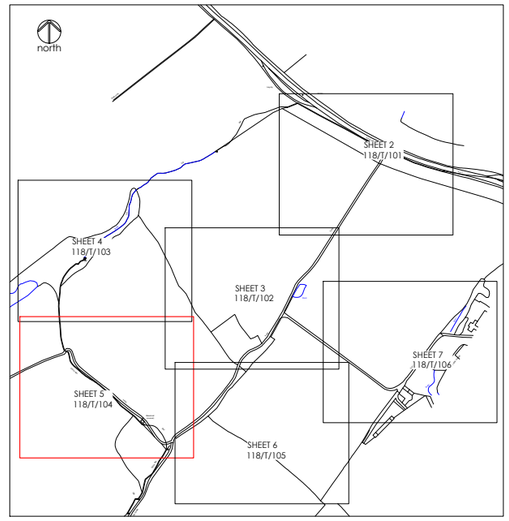
Track

0 10 20 30 40 50

SCALE 1:500 (A1)
SCALE 1:1000 (A3)
METRES

Notes

1. Dimensions are given in metres and millimetres as stated on the drawing.
2. Grid reference of site is located at approximately 360612,245822 .
3. Drawing must be reproduced in colour.



Key Plan - not to scale

Legend

Trees categorised in accordance with *BS5837:2012 Trees in relation to design, demolition and construction : Recommendations*
This drawing must be reproduced in colour

- CATEGORY A - high quality
- CATEGORY B - moderate quality
- CATEGORY C - low quality
- HEDGE - CANOPY EXTENTS
- HEDGE CENTRE LINE
- TREE, GROUP, WOODLAND OUTSIDE SURVEY EXTENTS
- ROOT PROTECTION AREA (RPA)
- T, G, W, H — REFERENCE tree, group, woodland, hedge

Drawing references

118/T/100 TREE CONSTRAINTS PLAN SHEET 1 OF 7
118/T/101 TREE CONSTRAINTS PLAN SHEET 2 OF 7
118/T/102 TREE CONSTRAINTS PLAN SHEET 3 OF 7
118/T/103 TREE CONSTRAINTS PLAN SHEET 4 OF 7
118/T/105 TREE CONSTRAINTS PLAN SHEET 6 OF 7
118/T/106 TREE CONSTRAINTS PLAN SHEET 7 OF 7

OS LICENCE

Serial number: 232134

Project	WHITWICK MANOR - AD PLANT	Dwg No	118/T/104				
Title	TREE CONSTRAINTS PLAN - SHEET 5 OF 7	Scale	1:500 @ A1 / 1:1000 @ A3	Date	04/03/2022	Drawn	MD

Revision	Date	Reason	Initials
P01.1	04/03/2022	DRAFT FOR INFORMATION	MD

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Cheshire | WA16 6LZ | 07710 498231

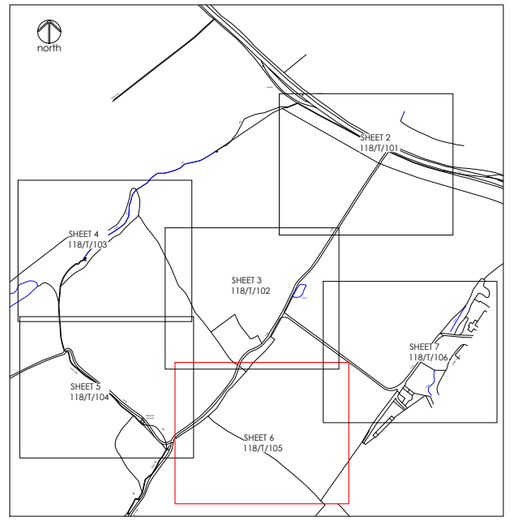
north

0 10 20 30 40 50

SCALE 1:500 (A1)
SCALE 1:1000 (A3)
METRES

Notes

1. Dimensions are given in metres and millimetres as stated on the drawing.
2. Grid reference of site is located at approximately 360612,245822 .
3. Drawing must be reproduced in colour.



Key Plan - not to scale

Legend

Trees categorised in accordance with *BS5837:2012 Trees in relation to design, demolition and construction : Recommendations*
This drawing must be reproduced in colour

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- CATEGORY C - low quality
- HEDGE - CANOPY EXTENTS
- HEDGE CENTRE LINE
- TREE, GROUP, WOODLAND OUTSIDE SURVEY EXTENTS
- ROOT PROTECTION AREA (RPA)
- T, G, W, H — REFERENCE tree, group, woodland, hedge

Drawing references

118/T/100 TREE CONSTRAINTS PLAN SHEET 1 OF 7
118/T/101 TREE CONSTRAINTS PLAN SHEET 2 OF 7
118/T/102 TREE CONSTRAINTS PLAN SHEET 3 OF 7
118/T/103 TREE CONSTRAINTS PLAN SHEET 4 OF 7
118/T/104 TREE CONSTRAINTS PLAN SHEET 5 OF 7
118/T/106 TREE CONSTRAINTS PLAN SHEET 7 OF 7

OS LICENCE

Serial number: 232134

Project	WHITWICK MANOR - AD PLANT	Dwg No	118/T/105				
Title	TREE CONSTRAINTS PLAN - SHEET 6 OF 7	Scale	1:500 @ A1 / 1:1000 @ A3	Date	04/03/2022	Drawn	MD

Revision	Date	Reason	Initials
P01.1	04/03/2022	DRAFT FOR INFORMATION	MD

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Cheshire | WA16 6LZ | 07710 498231

Notes

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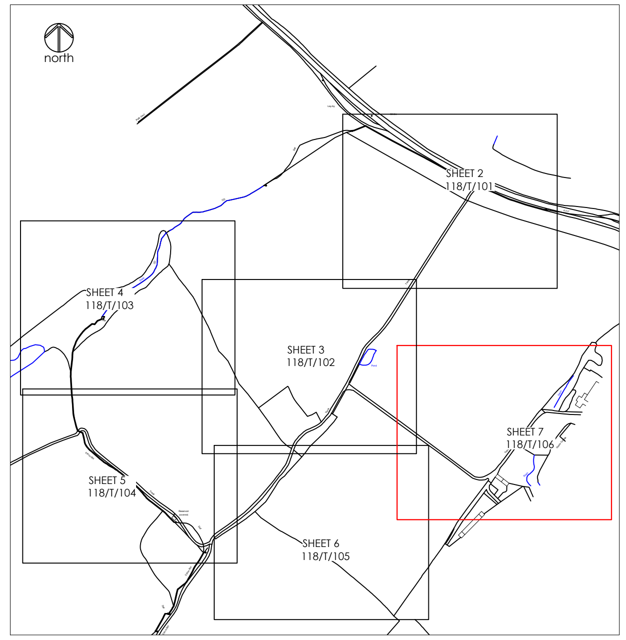
2. Grid reference of site is located at approximately 360612,245822 .
3. Drawing must be reproduced in colour.



Key Plan - not to scale

Legend

Trees categorised in accordance with *BS5837:2012 Trees in relation to design, demolition and construction : Recommendations*
This drawing must be reproduced in colour

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- CATEGORY C - low quality
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- HEDGE CENTRE LINE
- TREE, GROUP, WOODLAND OUTSIDE SURVEY EXTENTS
- ROOT PROTECTION AREA (RPA)
- T, G, W, H — REFERENCE tree, group, woodland, hedge

Drawing references

118/T/100 TREE CONSTRAINTS PLAN SHEET 1 OF 7
118/T/101 TREE CONSTRAINTS PLAN SHEET 2 OF 7
118/T/102 TREE CONSTRAINTS PLAN SHEET 3 OF 7
118/T/103 TREE CONSTRAINTS PLAN SHEET 4 OF 7
118/T/104 TREE CONSTRAINTS PLAN SHEET 5 OF 7
118/T/105 TREE CONSTRAINTS PLAN SHEET 6 OF 7

OS LICENCE

Serial number: 232134

Project	WHITWICK MANOR - AD PLANT	Dwg No	118/T/106
Title	TREE CONSTRAINTS PLAN - SHEET 7 OF 7	Scale	1:500 @ A1 / 1:1000 @ A3
Date	04/03/2022	Drawn	MD

Revision	Date	Reason	Initials
P01.1	04/03/2022	DRAFT FOR INFORMATION	MD

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Cheshire | WA16 6LZ | 07710 498231

FIGURE 3.0 TOPOGRAPHICAL SURVEY

General notes

Grid and levels have been aligned with OS National Grid OSGB36 (15).
All dimensions and levels are in metres unless noted otherwise.

This plan should only be used for its original purpose. JPP accepts no responsibility if supplied to any other party than the original client.

Generally, only trees with a girth greater than 0.1m will be shown on the drawing.

Survey station information

STATION	EASTING	NORTHING	HEIGHT
J1	360668.587	246134.651	91.940
J2	360612.214	246188.875	92.817

Key

AV	Air Valve	Fl.	Flood Light	P/R	Post & Rail Fence
Bol	Bollard	FW	Foul Water	P/W	Post & Wire Fence
BH	Borehole	g	Gully	RE	Rodding Eye
BL	Bed Level	GV	Gas Valve	RS	Road Sign
BT	BT Cover	Ht.	Height	rwp	Rainwater Pipe
CATV	Cable TV Cover	IC	Inspection Chamber	SV	Stop Valve
C/B	Close Boarded Fence	IL	Invert Level	svp	Soil & Vent Pipe
C/L	Chain Link Fence	I/R	Iron Railing	SW	Surface Water
CL	Cover Level	ko	Kerb Outlet	TL	Traffic Light
Col	Column	LP	Lamp Post	TP	Telegraph Pole
El	Elec	MH	Manhole	TW	Top of wall
ER	Earth Rod	Mkr	Marker Post	utl	Unable To Lift
EP	Electricity Pole	O/H	Overhead	VP	Vent Pipe
FH	Fire Hydrant	PB	Post Box	WL	Water Level
FL	Floor Level	Po	Post	WM	Water Meter
				wo	Wash Out

Building
Control Station
Tree
Bore Hole
Gate

Bottom of Bank
Top of Bank
Vegetation
Change of surface
Fence
Contours
OH Telecom
OH Electric

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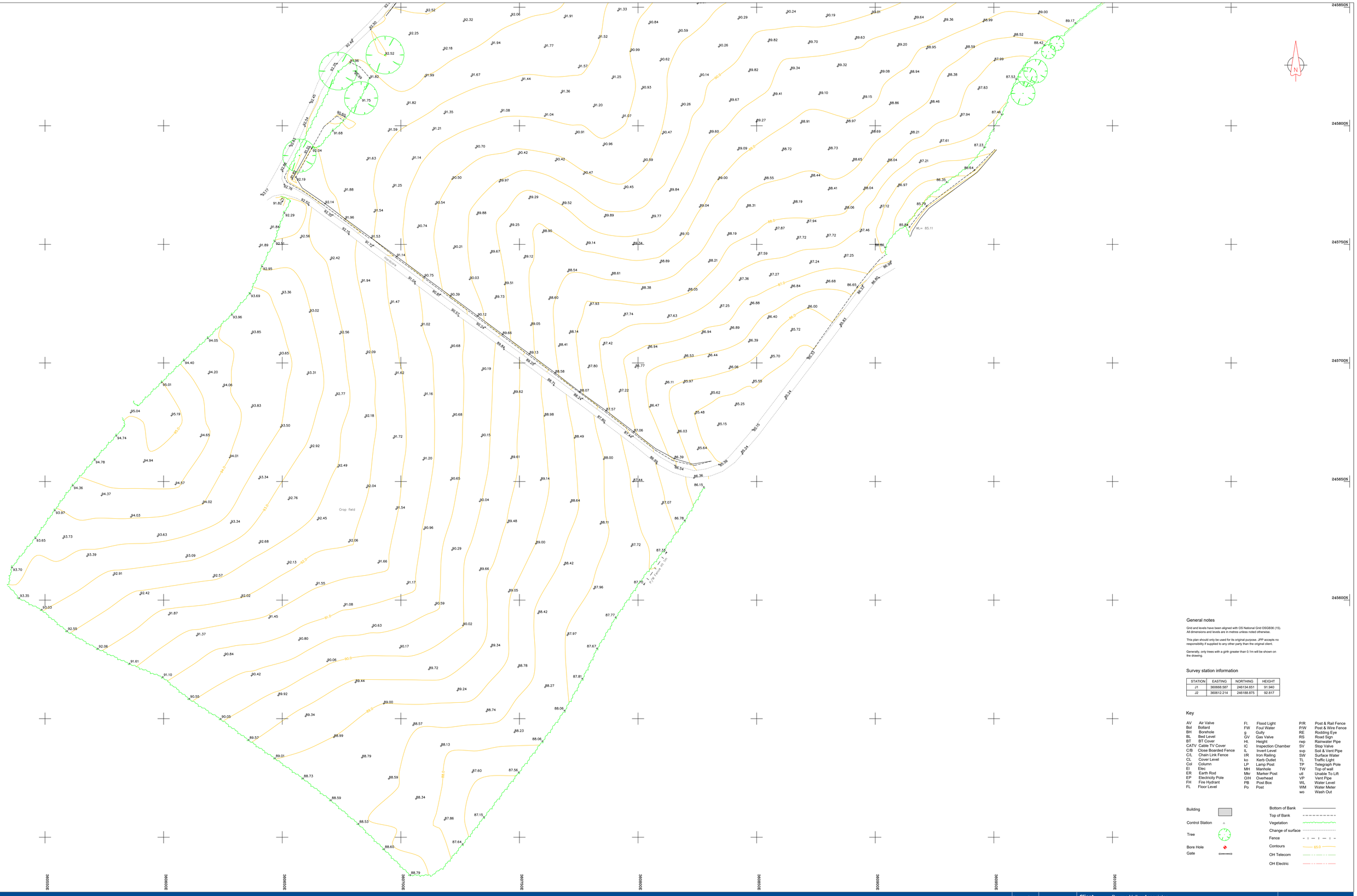
- Geotechnical & Environmental
- Surveying
- Professional Advice

Drawn By:	JG
Chkd By:	TB
Scale @ A0:	1:500
Date:	12/8/19
Status:	FOR INFORMATION
Project No.:	

Client	Bourne Valley Associates
Project	Whitwick Estate
Title	Topographical Survey
Drawing No:	1215/2526/1
Rev:	



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Col	Column	LP	Lamp Post	TP	Telegraph Pole
El	Elec	MH	Manhole	TW	Top of wall
ER	Earth Rod	Mkr	Marker Post	utl	Unable To Lift
EP	Electricity Pole	O/H	Overhead	VP	Vent Pipe
FH	Fire Hydrant	PB	Post Box	WL	Water Level
FL	Floor Level	Po	Post	WM	Water Meter
				wo	Wash Out

Building
Control Station
Tree
Bore Hole
Gate

Bottom of Bank
Top of Bank
Vegetation
Change of surface
Fence
Contours
OH Telecom
OH Electric

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- Structural Engineering
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- Surveying
- Professional Advice

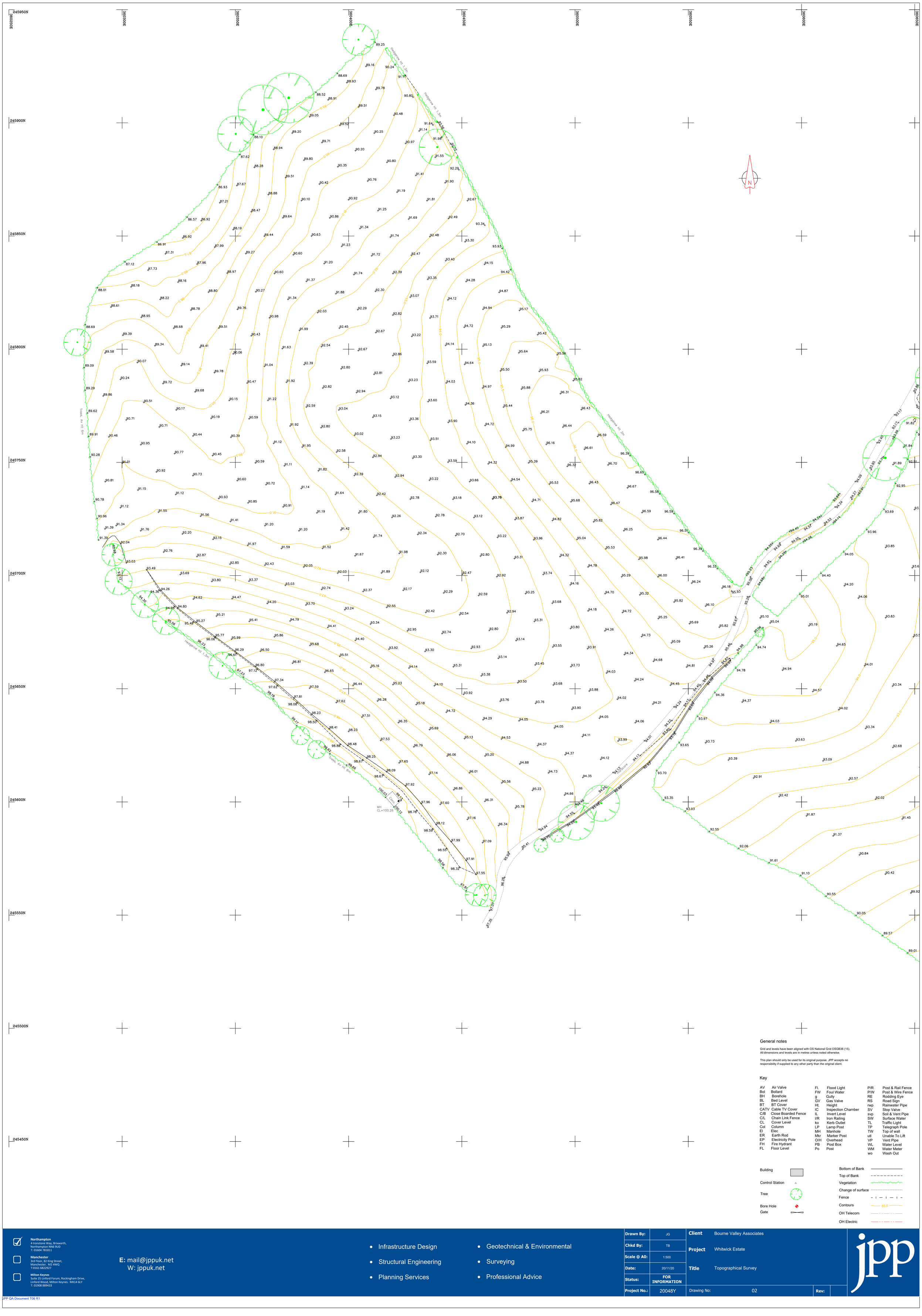
Drawn By:	JG
Chkd By:	TB
Scale @ A0:	1:500
Date:	12/8/19
Status:	FOR INFORMATION
Project No.:	

Client Bourne Valley Associates

Project Whitwick Estate

Title Topographical Survey

Drawing No: 1215/2526/2 **Rev:**



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Drawn By:	JG
Chkd By:	TB
Scale @ A0:	1:500
Date:	20/11/20
Status:	FOR INFORMATION
Project No.:	20048Y

Client Bourne Valley Associates

Project Whitwick Estate

Title Topographical Survey

Drawing No: 02 **Rev:**