



TREE SURVEY

THE CHANTRY, BISHOPTHORPE

PREPARED BY LANPRO SERVICES

**ON BEHALF OF
VINCENT & BROWN ARCHITECTS**

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1 INTRODUCTION

- 1.1 Lanpro Services Limited was appointed by Vincent and Brown Architects to undertake a survey of existing trees at 'The Chantry', Bishopthorpe (the Site). This report presents the findings of the survey. It is proposed to build a single storey extension to the south eastern wing of the property and construct an adjacent decking area (the Development).
- 1.2 This report and the accompanying appendices provide guidance as to the nature and quality of the existing tree stock both within and immediately adjacent to the Site.
- 1.3 The survey schedule (Appendix A) provides guidance as to the nature and quality of the existing tree stock within the Site.
- 1.4 The tree survey drawing 2820-00-101 titled Tree Constraints Plan (Appendix B) illustrates the location of the surveyed trees, the assigned tree category, the canopy spread at the four cardinal points (north, south, east and west) and the extent of the Root Protection Area (RPA) for each tree/ tree group.
- 1.5 Drawing 2820-00-102 titled Tree Impacts Plan (Appendix C) illustrates the location of the surveyed trees, the assigned tree category, the canopy spread at the four cardinal points (north, south, east and west), the extent of the Root Protection Area (RPA) for each tree/ tree group and the impact of the Development upon existing trees.
- 1.6 The survey was undertaken on 12th April 2021, for the duration of the survey the weather conditions were good, with bright sunshine and good visibility.

Survey Area Description

- 1.7 The Site is located within the village of Bishopthorpe approximately 4 km from York City Centre. The Site comprises an area of garden within a detached grade II listed residential property. The house and access driveway are located at the western side of the Site, with the garden to the east bordered by the River Ouse. The Site is illustrated by the 'site boundary' line on drawing 2820-00-101 Tree Constraints Plan (Appendix B).
- 1.8 There are no Tree Preservation Orders (TPO) on trees on Site; however the Site lies wholly within Conservation Area No 12. Bishopthorpe¹. As such all trees over 75mm diameter measured at 1.5m are protected by conservation area status similar to that of a TPO.
- 1.9 No trees should be felled, nor works undertaken to trees on Site without prior written consent of The Local Planning Authority, City of York Council (LPA).

¹ Bishopthorpe Conservation Areas No. 12 (43.3 ha). Available at: [APPENDB1.PDF \(york.gov.uk\)](#). Accessed 27.05.21.

2 METHODOLOGY

- 2.1 The arboricultural survey was conducted in accordance with the requirements of BS5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations (BS 5837).
- 2.2 It is required in accordance with BS 5837:2012, to provide detailed, independent, arboricultural advice on the trees present, in the context of potential development.
- 2.3 The trees were assessed objectively and without reference to any proposed site layout at the time of the survey. The trees were surveyed from the ground using ‘Visual Tree Assessment’ (VTA) methodology. VTA is appropriate and is endorsed by industry guidance. It is used by arboriculturists to evaluate the structural integrity of a tree, relying on observation of trees biomechanical and physiological features. Measurements are obtained using a diameter tape, clinometer, laser distometer and loggers tape. Where this is not practical measurements are estimated. Tree groups have been identified in instances as defined in BS 5837:2012. Shrubs and insignificant trees may have been omitted from the survey.
- 2.4 This report represents a BS5837 tree survey and should not be accepted as a detailed tree safety inspection report; however, tree related hazards are recorded and commented upon where observed, yet no guarantee can be given as to the absolute safety or otherwise of any individual tree. All recommended tree work must be to BS 3998:2010 - ‘Tree Work: Recommendations’.
- 2.5 The findings and recommendations contained within this report are valid for a period of twelve months from the date of survey. The author shall not be responsible for events which happen after this time due to factors which were not apparent at the time, and the acceptance of this report constitutes an agreement with these guidelines and terms.
- 2.6 Any additional off-site trees that could impact a new development design have been included in the tree survey parameters.
- 2.7 The tree positions were plotted on an Ordnance Survey map base-layer using enhanced GPS technology (1-2m accuracy) and laser distance measurer.
- 2.8 Features comprising multiple trees, scrub or other arboreal features have, where sufficiently consistent, been categorised as grouped features listing species composition, age and condition ranges as appropriate to best describe each feature. Within these groups, principal trees have been identified individually.

3 GENERAL CLIENT CONSIDERATIONS

- 3.1 Tree owners / managers have a legal duty to prevent foreseeable harm to people and property resulting from trees. It is generally accepted that this duty can be fulfilled by undertaking proactive inspections of significant trees to identify obvious defects and by taking appropriate remedial action or further inspections as may be recommended in this report.
- 3.2 Full consideration must be given to the presence of species protected under the Wildlife and Countryside Act (1981 - as amended), the Countryside Rights of Way Act (2000) and the Habitat Regulations (1994); in particular the presence of bats and nesting birds. It is recommended that wherever possible, significant tree/ hedge works take place outside of the typical bird nesting season of March to September and a qualified and experienced ecologist is consulted as appropriate to ensure legal compliance.
- 3.3 Any tree surgery recommendations contained within this report are to be undertaken in accordance with BS3998:2010 Tree Work – Recommendations by suitably qualified and insured contractors. Significant pruning works are best undertaken when trees are dormant or outside periods of high functional activity to reduce the overall impact on energy available to the tree for growth and processes. In general the optimum period for works is from November to February, when the tree is less active, and July to August (subject to no protected species being present) when the tree is better placed to respond to wounding and a reduction in leaf area.
- 3.4 The ‘Schedule of Existing Trees’ provided in Appendix A should be read in conjunction with the Tree Constraints Plan drawing 2820-00-101 (refer to Appendix B).

4 GENERAL ARBORICULTURAL PRINCIPLES

- 4.1 Trees are dynamic living organisms which provide essential benefits to society and the wider environment. Any project with the potential to impact on trees should take into consideration the value of trees on site, the impact of any proposed activity along with any potential future conflicts. Suitable measures to safeguard retained trees or mitigate the loss of trees to be removed will need to be fully considered and may be a condition of planning consent.
- 4.2 Tree branches and roots frequently grow across site boundaries and off-site trees can also pose a constraint and should be carefully considered when assessing a site.

Below Ground Constraints

- 4.3 Below ground tree roots and the soil environment in which they grow need to be protected if the tree is to be retained. Trees grow in association with fungi and other soil organisms which are of key importance to tree health. Roots are essential for anchorage, the uptake of water and nutrients and the storage of energy (carbohydrates) for the future growth and function of the tree.
- 4.4 Roots can be damaged by physical severance or wounding (e.g. following excavation of the soil) which can lead to the development of decay and a decline in vitality and/ or instability. Raising soil level effectively buries tree roots at a depth where suitable conditions for growth are less available and suffocation of the roots may occur as a result. Toxic materials discharged into the soil (such as cement-based aggregates, fuel and chemicals) can lead to root death and dysfunction. Soils can be compacted to levels inhospitable to tree growth with even a single pass of machinery, regular pedestrian traffic or the storage of plant and materials. Relieving compaction can be problematic and may require costly remedial works such as Terravention. Changes in drainage and water levels can also have significant long-term impacts for tree health.
- 4.5 The effects of these incursions may take many years to manifest, with a resulting decline in amenity value and potentially the death or failure of the tree. It should be noted that older trees are particularly sensitive to damage and changes in conditions as are certain species such as Beech for instance.
- 4.6 The Root Protection Area (RPA) is a notional area considered to be the minimum zone that must be protected to avoid any adverse impacts on retained trees. This area is deemed to be particularly important for tree stability, growth, function and health. However, roots may extend far greater distances, with the distribution of the root system relating directly to the availability of suitable conditions for growth (namely oxygen, water and nutrients). It is generally accepted that tree roots are predominantly located in the upper 1,000 mm of soil with fibrous roots located in the top 150mm of the soil; however, roots may develop at deeper levels where conditions allow.

4.7 The RPA defines the approximate underground area occupied by the tree roots based on a calculation relating to the girth of the tree, point above ground at which the trunk begins to branch out and the number of stems. BS5837 outlines the calculation for the RPA of single stem trees as an area equivalent to a circle with a radius 12 times the stem diameter. For trees with more than one stem, one of the two calculation methods below should be used. In all cases, the stem diameter(s) should be measured in accordance with Annex C of BS5837:2012, and the RPA should be determined from Annex D. The calculated RPA for each tree should be capped to 707 m².

a) For trees with two to five stems, the combined stem diameter should be calculated as follows:

$$\sqrt{(\text{stem diameter } 1)^2 + (\text{stem diameter } 2)^2 \dots + (\text{stem diameter } 5)^2}$$

b) For trees with more than five stems (not illustrated in Annex C), the combined stem diameter should be calculated as follows:

$$\sqrt{(\text{mean stem diameter})^2 \times \text{number of stems}}$$

4.8 The RPA of existing tree stock is an important material consideration when considering site constraints and planning development activities.

4.9 Construction operations, materials storage or changes in level should generally be avoided within the RPA of a tree to be retained on a developed site. This is because these operations have the potential to damage or kill the tree, the safe retention of which may be a condition of planning permission. This is significant when considering construction in close proximity to off-site/ third party land. Special construction techniques (e.g., no-dig construction/ permeable surfacing) may be considered for light loadings (e.g., pedestrian footpaths etc.) within the RPA.

4.10 It should be noted that the RPA often varies in size from the physical area occupied by the canopy spread (due to particular tree species or management practices to artificially alter the canopy size). This is of particular importance when integrating new development in proximity of existing trees. Similarly, the canopy heights (as identified in the Schedule of Existing Trees) should be considered as the usable space below a low branching tree will be severely restricted without specific arboricultural works to raise the canopy (which may not always be appropriate).

4.11 It should also be noted that BS 5837 states that although RPAs should be plotted as a circle centred on the base of the stem, pre-existing site conditions or other factors may indicate that rooting has occurred asymmetrically and so RPAs may instead be represented as a polygon of equivalent area.

- 4.12 The RPA of the existing tree stock is an important material consideration when considering site constraints and planning development activities. The RPAs of all trees and hedgerows within the Site are shown on drawings 2820-00-101 Tree Constraints Plan (Appendix B).
- 4.13 The default position must be that all development, including any associated services will occur outside the RPAs of retained trees. Where this is unavoidable it may be appropriate to use special measures to install structures, services or surfacing within RPAs which allow the protection of roots and soil structure which are essential for tree growth and keep any incursion to a minimum. This methodology is usually set out in an Arboricultural Method Statement which describes how development around trees should be undertaken.
- 4.14 Further steps to improve or increase the useable rooting area available to the tree may also be required.

Soils

- 4.15 On shrinkable clay soil, tree growth can lead to the differential movement of structures as moisture is removed from the soil during the growing season.
- 4.16 Soils must be carefully assessed and any foundations must be installed in line with the recommendations of NHBC Standards Chapter 4.2: Building Near Trees (2021) to avoid potential future damage. Where trees which predate existing structures are to be removed, this can result in heave as the soils re-wet. The advice of a suitably qualified engineer must be obtained to inform any potential issues associated with heave. This will include the need to assess the soil types and conditions on site through soil sampling. Specific advice in relation to this topic is beyond the scope of this report.

Above Ground Constraints

- 4.17 Tree stems and branches can restrict available space on site. Damage or wounding (including excessive pruning) can significantly reduce the amenity contribution along with the energy production (via foliage) and storage capacity (via woody material) of the tree and may in turn lead to the development of dysfunction and decay with significant long-term implications for tree health. The future impact of existing trees should be carefully considered, including individual species characteristics (such as potential future size, fruit fall, shade etc.) and how the tree will interact with any proposed development and future land use. Annual tree growth can lead to direct damage if stems/ branches (or roots) come into physical contact with structures and this must also be taken into consideration.

Table 1: Key to Abbreviations Used in the Tree Survey

Term	Definition	
Age	Classification given in relation to the life expectancy of the specific species.	
	Young (Y)	Tree in the first third of its normal life expectancy for the species (significant potential for future growth in size).
	Semi Mature (Sm)	Tree in the second third of its normal life expectancy for the species (some potential for future growth in size).
	Early Mature (Em)	Tree in the final third of its normal life expectancy for the species (having typically reached its approximate ultimate size).
	Mature(M)	Tree beyond the normal life expectancy for the species.
	Over Mature (Om)	Tree of interest biologically, aesthetically or culturally because of its condition, size or age.
Ave	Indicates an average representative measured dimension for the group or feature.	
Canopy Spread	Extent of the tree canopy spread, measured in metres on the four compass points and recorded to the nearest half metre for dimensions up to 10 m and the nearest whole metre for dimensions over 10 m.	
Category	A	High quality/ value 40 yrs+
	B	Moderate quality/ value 20 yrs+
	C	Low quality/value min 10 yrs/ stem diameter less than 150 mm.
	U	Unsuitable for retention.
	1	Arboricultural quality/ value.
	2	Landscape quality/ value.
	3	Cultural quality/ value (including conservation).
Condition	Classification given in relation to the life expectancy of the specific species.	
	Good	Normal vitality including leaf size, bud growth, density of crown and woundwood development, and/or no significant structural defects.
	Fair	Lower than normal vitality, reduced bud development, reduced crown density; reduced response to wounds, and/or structural defects which can be resolved via remedial works.
	Poor	Low vitality, low development and distribution of buds, discoloured leaves, low crown density, little extension growth for the species and/or structural defects which cannot be resolved via remedial works.
	Dead	Dead
	Fair to Good	Indicates a range of conditions (e.g. within a group)
Crown clearance	The height to the lowest part of the crown, measured in metres and recorded to the nearest half metre for dimensions up to 10 m and the nearest whole metre for dimensions over 10 m.	

Term	Definition
DBH	Diameter at Breast Height.
Estimated Height	Height of the tree, measured in metres and recorded to the nearest half metre dimensions up to 10 m and the nearest whole metre for dimensions over 10 m.
Observations	General observations, particularly of structural and/or physiological condition. (E.g., the presence of any decay and physical defect).
Preliminary Management Recommendations	Preliminary Management Recommendations are provided irrespective of whether the vegetation concerned will be lost to the proposed development or not. This accords with BS5837 (2012) 'Trees in Relation to Design, Demolition and Construction – Recommendations'. Amongst other functions, describing such measures ensures that any readily achievable potential value associated with vegetation can be considered during subsequent assessment.
Ref No	Specific identification number given to each tree or group Corresponding number on plan – T = Tree / H = Hedge / G = Group / W = Woodland (Emboldened text indicates a tree thought to be protected by TPOs.)
Root Protection Area (RPA)	An area which defines the theoretical minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability and where the protection of the roots and soil structure is treated as a priority. Measured as the radius of a circle in metres, and total area in square metres.
Species	Common name followed by botanical name shown in italics
Stem diameter	Diameter measured in millimetres at 1.5 m above ground level (MS = Multi-stem tree measured in accordance with BS5837)
Tree Tag No	Where practicable identification tags have been attached to all individual trees. Where this was not possible, for example, where they are located on third party land, the entry will read 'N/A'. Tree tags for groups are located on the first significant tree. Large trees groups are not tagged. All tags are located in a prominent position facing the highway, approximately 1.5 m above the adjacent ground level.
Veteran Tree	A tree which is of a great age; a great age relative to others of the same species, existing in an ancient stage of life or due to its biological, aesthetic or cultural interest.
-	Dimension estimated due to tree(s), hedgerow(s) etc. not being accessible and preventing accurate measuring.
#	Indicates where it is not possible to determine the extent of growth due to canopies overlapping.

5 FIELDWORK OBSERVATION

- 5.1 The tree survey revealed 33 items of woody vegetation, comprised of 26 individual trees and 7 groups of trees or shrubs or hedges.
- 5.2 Of the surveyed trees: 1 tree is retention category 'A', 7 trees and 2 groups are retention category 'B', and the remaining 23 trees and groups are retention category 'C' (explanatory details regarding the retention categories are included in table 1).
- 5.3 Within the southern courtyard is a large Yew (T1) at the south eastern corner of the residence. To the south of the Yew is a relatively dense group of trees and shrubs (T20 to G26 and T31 and T32) containing Spruce and Pine with an understory of Hazel, Yew and Privet hedging of varying age categories. The western boundary is made up of a relatively new planting scheme consisting of a Photinia and Yew hedging mix (G28), as well as an early-mature Sycamore off the south western corner of the residence (T30).
- 5.4 The most notable tree is the mature Cedar, T17, situated on the lawned area of the rear garden. This tree is prominent throughout the entire site and provides a good level of amenity value and arboricultural interest.
- 5.5 The northern end of the garden is primarily made up of a large group of screening vegetation (G5). This consists of Yew and Cypress with an understory of Laurel and Elder. The southern boundary is another large screening group containing a semi-mature mix of Cypress, Ash and Beech with occasional Yew, Laurel and Rhododendron understory (G19). G5 and G19 provide highly effective screening. Their natural management offers good visual amenity.
- 5.6 There is a small collection of relatively young trees along the eastern edge of the survey area providing screening of an old tennis court, primarily Pear, Apple and Cherry species with the occasional Monkey Puzzle and young Cedar (T6 to G16).
- 5.7 There is reasonable species diversity within the grounds of the property, with a tendency towards evergreen species; the northern and southern boundary groups (G5 and G19) primarily consisting of Cypress, Yew and Laurel, the significant Cedar (T17) and the south western group of Spruce and Pine (21 to T25). However, there are several broadleaf species throughout the survey area, including multiple fruit trees and occasional Sycamore and Hazel. The site also has a good age diversity, with a healthy mix of young to mature trees.
- 5.8 T29 is a Beech tree in an adjoining property and was only given a cursory inspection due to its location, but it was noted to provide the site with a good degree of visual amenity.
- 5.9 Some trees were covered in dense Ivy or were inaccessible (as detailed in Appendix A). In such cases measurements were estimated and the condition values are indicative only.
- 5.10 The tree Root Protection Area (RPA) detailed on the Tree Constraints Plan at Appendix B has been used as a layout design tool, to inform on the area around a tree where the protection of the roots and soil structure is treated as a priority.

- 5.11 Some lower value tree, hedge and shrub groups do not have RPAs detailed on tree plans. The detailed extent and spread of these low value groups, in conjunction with the tree schedule, is sufficient to assess the associated potential constraints.
- 5.12 The RPA for each tree has been plotted as a polygon centred on the base of the stem. Due to the presence of roads, structures, topography (and past tree management) the RPA is likely to be a simplified representation of the tree roots actual morphology and disposition.

Table 2: Summary of tree classification

Category	Tree Reference	Total
A	T17	1
B	T1, G5, T18, G19, T20, T21, T24, T29, T30	9
C	T2, T3, T4, T6, T7, T8, T9, T10, T11, T12, T13, T14, T15, G16, T22, T23, T25, G26, G27, G28, T31 and T32, G33	23
U	-	0

6 ARBORICULTURAL IMPACT ASSESSMENT (AIA)

Proposed New Development

- 6.1 The development proposals have been provided by my client and inform this AIA and the Tree Impacts (Appendix C).

Direct Impacts

- 6.2 From assessing the Development, 2 trees will require removal as they are situated in the footprint of the structure or their retention and protection throughout the development is not suitable.
- 6.3 The trees that require removal are T2 and T3. These trees have been identified in red on the drawing 2820-00-102 Tree Impact Plan (Appendix C).
- 6.4 The trees that require removal are lower value, retention category 'C'. T2 is a Magnolia that has had a substantial western stem removed in the past and has produced a lot of epicormic growth as a result. T3 is a Japanese Maple with multiple pruning wounds from past management. Both trees have a significant eastern lean, likely a result of suppression from T1.
- 6.5 Due to the relatively low value of the trees to be removed the removals will have only a negligible negative arboricultural impact. The retention of the remaining trees within the garden will minimise the loss of visual amenity within the garden. Retained trees will provide an important element of green infrastructure, provide visual amenity and complement the new development.
- 6.6 The Yew tree T1 will require minor crown reduction/lifting work to the north-western crown to facilitate the development). The tree is capable of readily tolerating these works and the amenity value it provides will not be impacted.

Indirect Impacts

- 6.7 The RPA detailed on the Tree Plans at Appendix B and C, has been used as a layout design tool, to inform on the area around a tree where the protection of the roots and soil structure is treated as a priority.
- 6.8 Potentially damaging activities are proposed in the vicinity of retained trees. The new extension is to be built within the edge of the RPA of T1. However, it should be possible to employ special foundation design such as mini/micro pile and suspended beam or a cantilevered foundation in order to overcome or minimise any negative impact on the tree roots.
- 6.9 There will be a change in surface conditions within the RPA as a result of the development including:
- Existing buildings within the RPA are to be demolished with the Development located in their place;

- Existing impermeable surfaces of an existing garden courtyard are to be removed and replaced in part by the Development and part by reversion to impermeable surfacing overlain with a permeable decked surface.;
- A small area of existing permeable surfacing is to be replaced by the Development;
- Areas of impermeable surfacing and an area of compacted earth driveway are to be made permeable and receive surface decompaction and provision for permeable surface treatments to improve the existing baseline situation; and
- Areas of permeable surface are to be retained and replaced with a permeable decked surface.

6.10 The decking proposed to the east of the extension falls within the RPA of T1 and encroaches close to the stem of T1. To avoid any negative impacts to the tree there should be no excavation or ground or level changes within uncultivated land within the RPA to facilitate the decking construction. The decking should utilise permeable geotextile sheeting for any required weed suppression, while still allowing rainwater runoff to permeate within the built decking area. The decking materials should be inert including any stains or preservatives so they do not leach into the soil which may damage roots.

6.11 It is proposed to convert the existing hardstanding surface within the southern courtyard to a permeable hard surface. Provided care is taken during the work, avoiding any excavations within the detailed RPAs, the new porous surface will be more beneficial to the retained trees than the existing hard surfaces.

6.12 Impermeable surfaces of an existing garden courtyard and concrete path would be given over to permeable soft landscape to improve the existing baseline scenario.

6.13 A small vehicular access between the southern courtyard and the garden would be carefully de-compacted and replaced with ground reinforcement to prevent future compaction and to improve the existing baseline.

6.14 The design of the new development has considered the trees crown position in relation to the extension. The Yew is a slow growing species that is unlikely to grow significantly wider. The detailed crown pruning is proposed to be minimal and limited to providing an offset from the proposed development and T1 and should avoid excessive shading and give adequate provision for future tree growth.

6.15 The buildability of the proposed development has been assessed in terms of access, adequate working space and provision for the storage of materials, including topsoil, in relation to the trees.

Suitable Mitigation

6.16 The Development provides an excellent opportunity to undertake new tree planting within the site as part of a soft landscaping scheme. As such, suitable new tree planting has the potential to mitigate for the required tree removals and, in the longer term, has the potential

to improve the sites tree cover. Such planting could be conditioned as part of the planning decision notice.

Protection to Retained Trees

- 6.17 The retained trees will require protection by fencing in accordance with BS 5837: 2012, during the development phase.
- 6.18 It is recommended that an Arboricultural Method Statement, detailing protective fencing specifications and construction methods close to the retained trees is provided.

7 Photographs

This section provides a range of photographs to illustrate the arboricultural characteristics of trees located in proximity to the Development.



Photograph 1: Looking north east at T1



Photograph 2: Looking south west with T3 (right) and T2 (left) with T1 in the background



Photograph 3: Looking west at T17

Appendix A: Schedule of Existing Trees

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition						Value		Management		
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T1	Yew	<i>Taxus baccata</i>	Mature	14	3	580 520 610	No	2.5	4.5	6	6.5	4.5	No visual defects	Multiple stemmed at 1m. Vertical. Old pruning wounds. Stubs	Old pruning wounds. Minor deadwood	Heavy pruning carried out to reduce western aspect. Natural bracing at stem unions. Sympathetically reduced in past.	Good	Good	>40 yrs	Moderate	B	No works required
T2	Magnolia	<i>Magnolia sp.</i>	Semi-mature	9	1	290	No	1.5	2.5	7	4	3	No visual defects	Single stemmed. Significant lean. Epicormic growths. Old pruning wounds from crown lifting	Old pruning wounds. Cavities. Minor deadwood	Significant eastward lean. Old snap out in crown, healing well. Suckering growth from lower stem. Old stem removed in past to allow for fence	Good	Good	20 to 40 yrs	Moderate	C	Removal required to facilitate development
T3	Japanese Maple	<i>Acer palmatum sp.</i>	Semi-mature	9	2	250 230	No	1.5	4	5.5	2.5	2.5	No visual defects	Twin stemmed at 1m. Slight lean. Old pruning wounds from crown lifting	Old pruning wounds	Slight lean to north east	Good	Good	20 to 40 yrs	Moderate	C	Removal required to facilitate development
T4	Indian Bean Tree	<i>Catalpa bignonioides</i>	Mature	9.5	1	440	No	520	4	4.5	4.5	4	Exposed roots. Mower damage	Single stemmed. Significant lean. Stubs. Old pruning wounds from crown lifting. Mower damage. Tight union with included bark	Old pruning wounds. Minor dieback. Minor deadwood. Poor bracing. Epicormic	Non-standard cable bracing in crown causing bark damage to stems. Heavily pruned in the past. Significant southern lean toward patio area	Fair	Poor	10 to 20 yrs	Moderate	C	No works required

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition						Value		Management		
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
G5	Yew, Elder, Cypress, Cabbage Palm, Laurel	<i>Taxus sp.</i> <i>Sambucus sp.</i> <i>Cupressus sp.</i> <i>Cordyline sp.</i> <i>Prunus sp.</i>	Semi-mature	13	10+		Yes	0	See Plan				Undulating shelterbelt of semi-mature Yew and Cypress along northern boundary. Laurel and Elder understorey. Occasional Cabbage Palm. Effective screening with moderate amenity				Good	Good	>40 yrs	Moderate	B	No works required
T6	Apple	<i>Malus sp.</i>	Semi-mature	3.5	2	130 100	No	0.5	2	2.5	3	2.5	No visual defects	Twin stemmed at 0.5m. Vertical	Old pruning wounds. Slightly unbalanced	Fair	Fair	>40 yrs	Moderate	C	No works required	
T7	Cherry	<i>Prunus sp.</i>	Young	3.5	2	60 50	No	1	1	1.5	2	2.2	Exposed roots	Multiple stemmed at base. Vertical. Lower bark damage	Normal. No visual defects	Fair	Fair	>40 yrs	Moderate	C	No works required	
T8	Pear	<i>Pyrus sp.</i>	Young	3.5	3	100 100 90	No	0.5	1.5	1.5	2	2	No visual defects	Multiple stemmed at base. Vertical. Lower bark damage	Slightly unbalanced	Good	Good	>40 yrs	Moderate	C	No works required	
T9	Pear	<i>Pyrus sp.</i>	Young	5	1	110	No	0.5	1.5	1.5	1.5	2	No visual defects	Single stemmed. Vertical	Normal. No visual defects	Good	Good	>40 yrs	Moderate	C	No works required	
T10	Pear	<i>Pyrus sp.</i>	Semi-mature	3.5	2	110 110	No	0.5	2	3	3	2.5	No visual defects	Twin stemmed at base. Significant lean. Old pruning wounds. Epicormic growths	Slightly unbalanced. Minor deadwood	Significant southern lean	Good	Fair	>40 yrs	Moderate	C	No works required

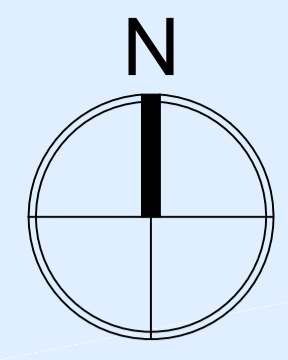
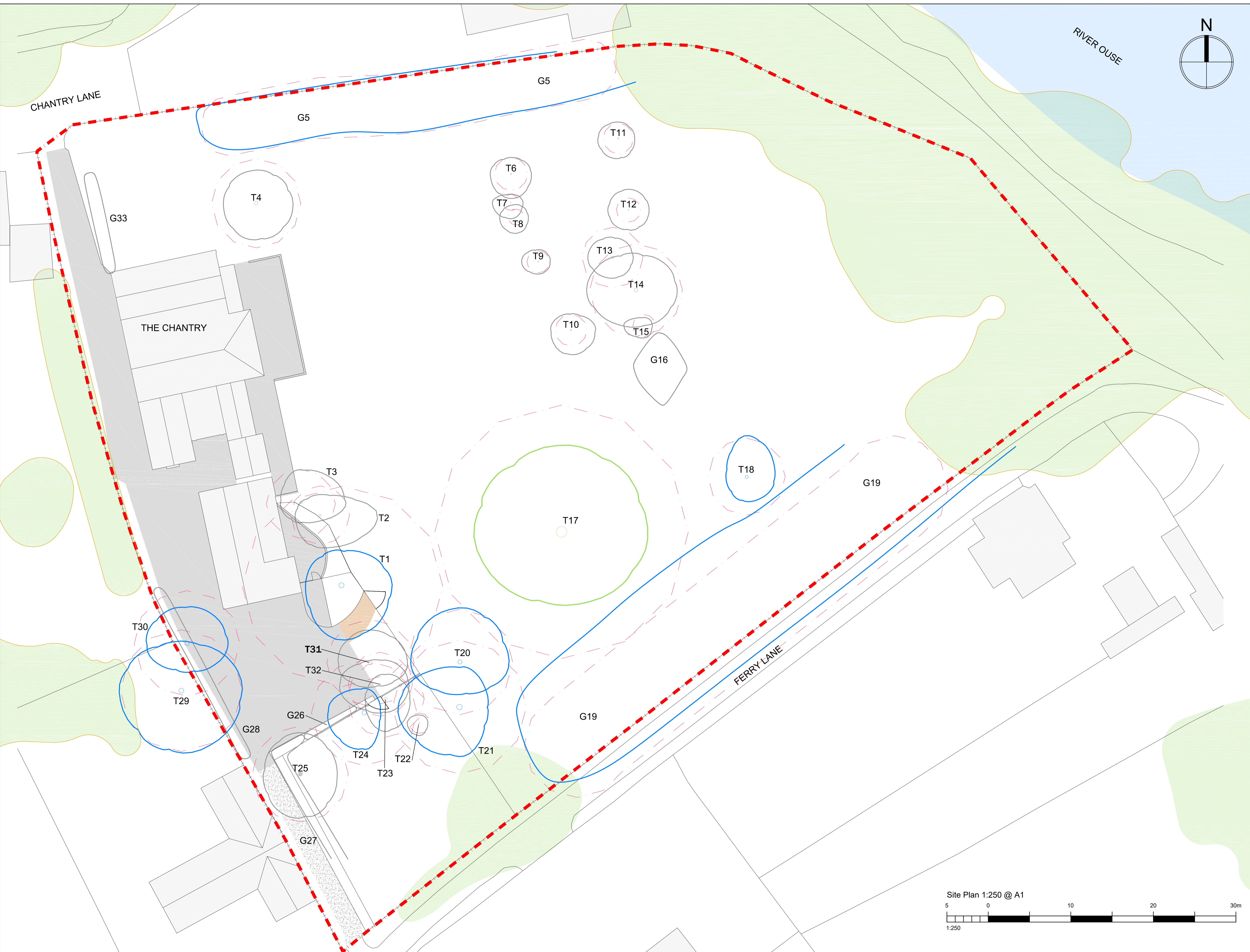
Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition						Value		Management		
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T11	Cedar	<i>Cedrus atlantica</i>	Young	7	1	150	No	0	2	2	2.5	2.5	No visual defects	Single stemmed. Vertical. Old pruning wounds. Pruning wounds - healing well	Minor deadwood.		Good	Good	>40 yrs	Moderate	C	No works required
T12	Cherry	<i>Prunus sp.</i>	Semi-mature	6.5	2	90 80	No	0.5	2.5	2.5	2.5	2.5	No visual defects	Single stemmed. Vertical	Well developed crown		Good	Good	>40 yrs	Moderate	C	No works required
T13	Monkey Puzzle Tree	<i>Araucaria araucana</i>	Semi-mature	9	1	300	Yes	0	2.5	2.5	2.5	3	Limited access around base	Single stemmed. Vertical.	Normal. No visual defects	Stem diameter estimated with distometer	Good	Good	>40 yrs	Moderate	C	No works required
T14	Cherry	<i>Prunus sp.</i>	Early-mature	11	2	390 240	No	1	4.5	5	4.5	6	No visual defects	Single stemmed. Vertical. Old pruning wounds. Stubs	Old pruning wounds. Minor deadwood		Good	Good	20 to 40 yrs	Moderate	C	No works required
T15	Pear	<i>Pyrus sp.</i>	Semi-mature	4	1	110	No	2	1	1	1.5	2.5	No visual defects	Single stemmed. Slight lean. Slightly unbalanced	Minor deadwood	Unbalanced crown to western aspect	Good	Fair	20 to 40 yrs	Moderate	C	No works required
G16	Dogwood, Cherry Laurel	<i>Cornus sp.</i> <i>Prunus sp.</i>	Semi-mature	5	10+	80	No	0	See Plan				No visual defects	Multiple stemmed at base. Slight lean. Epicormic growths	Unbalanced	Pruned as shrub. Slight lean west. Suppressed to north.	Fair	Good	20 to 40 years	Moderate	C	No works required

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition						Value		Management		
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T17	Cedar	<i>Cedrus atlantica</i> 'Glauca'	Mature	22	1	1330	No	0.5	10.5	10.5	9	10.5	Girdling	Single stemmed. Vertical. Pruning wounds from crown lifting. Stubs	Old pruning wounds. Minor deadwood	Logs piled around northeast aspect of stem.	Good	Good	>40 yrs	High	A	No works required
T18	Birch	<i>Betula pendula</i>	Early-mature	18	1	380	No	1	5	3.5	3	2.5	No visual defects	Single stemmed. Vertical. Ivy covered	Normal. Minor deadwood		Good	Good	20 to 40 yrs	Moderate	B	No works required
G19	Laurel, Cypress, Yew, Ash, Beech. Rhododendron	<i>Prunus sp.</i> <i>Cupressus sp.</i> <i>Fraxinus sp.</i> <i>Fagus sp.</i> <i>Rhododendron sp.</i>	Early-mature	15	10+		Yes	0	See Plan				No visual defects	Multiple stemmed at base. Old pruning wounds. Stubs. Rubbing stems	Normal. Rubbing branches. Epicormic. Old pruning wounds		Good	Good	20 to 40 yrs	Moderate	B	No works required
T20	Yew	<i>Taxus baccata</i>	Semi-mature	14	1	520	No	1.5	6.5	6	4	6	No visual defects	Single stemmed. Vertical. Old pruning wounds. Stubs	Old pruning wounds. Minor deadwood		Good	Good	>40 yrs	Moderate	B	No works required
T21	Pine	<i>Pinus sp.</i>	Mature	18	1	660	No	6	5	3.5	6	7.5	No visual defects	Single stemmed. Vertical	Minor deadwood		Good	Good	20 to 40 yrs	Moderate	B	No works required
T22	Yew	<i>Taxus baccata</i>	Semi-mature	3	2	80 60	No	0	1	1	1.5	1.5	No visual defects	Twin stemmed at 1m. Slight lean. Epicormic growths	Unbalanced	Maintained as a shrub. Northern aspect suppressed	Good	Fair	>40 yrs	Moderate	C	No works required

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition						Value		Management		
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T23	Spruce	<i>Picea sp.</i>	Early-mature	16	1	380	No	1	3	3	4	2.5	Girdling	Single stemmed. Vertical. Pruning wounds from crown lifting. Stubs	Old pruning wounds. Minor deadwood	Good	Fair	>40 yrs	Moderate	C	No works required	
T24	Spruce	<i>Picea sp.</i>	Early-mature	17	1	520	No	1.5	3	2	4.5	4.5	No visual defects	Single stemmed. Vertical. Ivy covered	Normal. Minor deadwood	Good	Good	>40 yrs	High	B	No works required	
T25	Hazel	<i>Corylus avellana</i>	Semi-mature	9.5	10+	150	No	2	5	4.5	5.5	4.5	No visual defects	Multiple stemmed at base. Old pruning wounds. Stubs. Rubbing stems	Normal. Rubbing branches. Epicormic. Old pruning wounds	Fair	Fair	>40 yrs	Moderate	C	No works required	
G26	Yew	<i>Taxus baccata</i>	Young	1	10+	50	Yes	0	See Plan				Small section of managed Yew				Good	Fair	>40 yrs	Low	C	No works required
G27	Privet	<i>Ligustrum vulgare</i>	Semi-mature	3	10+	40	Yes	0	See Plan				Managed privet hedge around garden				Good	Fair	20 to 40 yrs	Low	C	No works required
G28	Photinia, Yew	<i>Photinia sp.</i> <i>Taxus sp.</i>	Young	3.5	10+	40	Yes	3	See Plan				Photinia interspersed evenly along a small managed Yew understorey				Good	Good	>40 yrs	Moderate	C	No works required

Tree ID	Tree Species		Maturity	Measurements				Crown (m)				Tree Condition						Value		Management		
	Common Name	Latin Name		Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T29	Beech	<i>Fagus sylvatica</i>	Early-mature	20	1	600	Yes	4	6	7.5	7.5	7.5	Limited access around base	Single stemmed. Vertical. Rubbing stems	Minor deadwood	Neighbouring tree. Access prevented detailed inspection	Good	Good	>40 yrs	High	B	No works required
T30	Sycamore	<i>Acer pseudoplatanus</i>	Early-mature	15	1	520	No	4	4.5	5	3.5	5	No visual defects	Single stemmed. Vertical. Ivy covered	Minor deadwood	G28 planted around tree, no evidence of damage	Fair	Fair	>40 yrs	Moderate	B	No works required
T31	Spruce	<i>Picea sp.</i>	Semi-mature	18	1	430	No	5	4	4.5	3	4	Exposed roots	Single stemmed. Vertical. Stubs. Old pruning wounds	Minor deadwood		Good	Good	>40 yrs	Moderate	C	No works required
T32	Hazel	<i>Corylus avellana</i>	Semi-mature	7.5	10+	100	No	2.5	3	3.5	3.5	5	No visual defects	Multiple stemmed at base. Vertical. Stubs. Epicormic growths. Rubbing stems	Minor deadwood. Rubbing branches. Tight unions	Coppiced regeneration	Good	Fair	>40 yrs	Moderate	C	No works required
G33	Beech	<i>Fagus sylvatica</i>	Semi-mature	3.5	10+	50	Yes	0.5	See Plan				Managed Beech hedge at entrance of property				Good	Fair	>40 yrs	Low	C	No works required

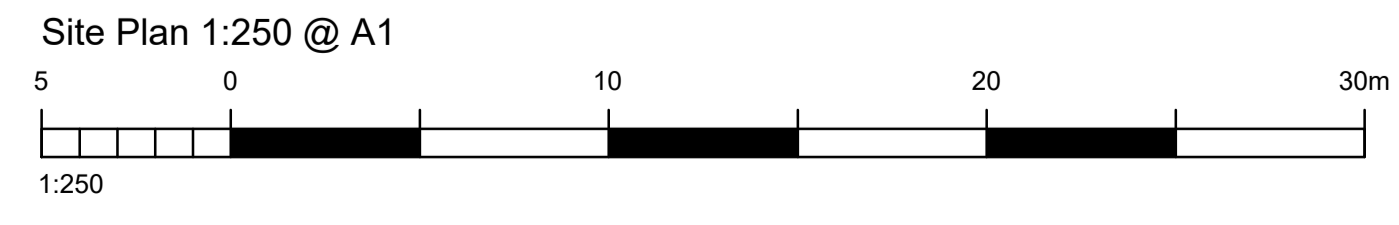
Appendix B: Tree Constraints Plan - Drawing 2820-00-101



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 These duties can be found at:
<http://www.hse.gov.uk/construction/2015/2015responsibilities.htm>
 It is your responsibility as client to make yourself aware of your role within CDM 2015 and act accordingly.

- KEY**
- - - Site Boundary
 - Water Body
 - Existing impermeable hard standing
 - Existing compacted earth vehicular access
 - Existing permeable gravel surface
- Retention Category**
- Category A tree as defined by BS5837:2012 HIGH Quality value
 - Category B tree as defined by BS5837:2012 MODERATE Quality value
 - Category C tree as defined by BS5837:2012 LOW Quality value
 - Category U tree as defined by BS5837:2012-REUNITE (Dead, Dormant or Infected)
 - RPA (Root protection area)
 - UNCATEGORISED VEGETATION

A		Revised in red areas of sheet revisions	
REVISION BY: MT	DATE: 08/08/2021	CHECKED BY: MT	DATE: 08/08/2021
PURPOSE OF ISSUE For Planning		RIBA STAGE 2	
DRAWING STATUS For Planning Submission			
PROJECT TITLE The Chantry, Bishopthorpe			
CLIENT Vincent & Brown Architects			
DRAWING TITLE Tree Constraints Plan		SCALE 1:200@A1	
DATE 07.05.2021	DRAWN BY MT	CHECKED BY MR	APPROVED BY MT
DRAWING NUMBER PROJECT NO TYPE UNIQUE NO REVISION 2820 - 00 - 101 - A			
Lanpro			
York Office: Blake House, 18 Blake Street, York, YO1 5GZ Tel: 01904 800 800 www.lanpro.co.uk			



Appendix C: Tree Impact Plan - Drawing 2820-00-102

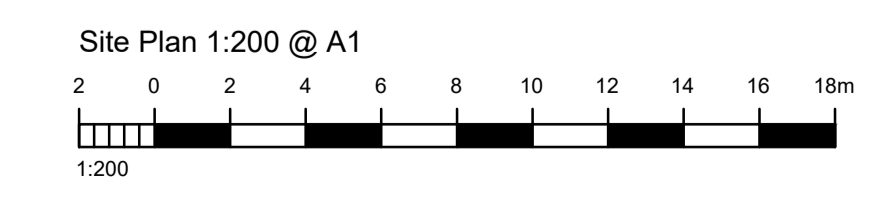


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<http://www.hse.gov.uk/abonstruction/cdm2015responsibilities.htm>
 It is your responsibility as client to make yourself aware of your role within CDM 2015 and act accordingly.

- KEY**
- Site boundary
 - Water body
 - Proposed high quality timber decking - no dig construction and permeable surface finish in line with proposed Arboricultural Method Statement
 - Existing permeable surface and levels within the RPA of T1 to be retained
 - Existing permeable surface within the RPA of T1 to be replaced by new building with specialist construction in line with proposed Arboricultural Method Statement
 - Existing impermeable/compacted surface within the RPA of T1 to be made permeable with a no dig surface treatment in line with a proposed Arboricultural Method Statement
 - Existing impermeable surface within the RPA of T1 to be replaced by new building with specialist construction in line with proposed Arboricultural Method Statement
 - Existing building within the RPA of T1 to be replaced by new building with specialist construction in line with proposed Arboricultural Method Statement

- Retention Category**
- Category A tree as defined by BS5837:2012 HIGH Quality/ value
 - Category B tree as defined by BS5837:2012 MODERATE Quality/ value
 - Category C tree as defined by BS5837:2012 LOW Quality/ value
 - Category U tree as defined by BS5837:2012 REMOVE Dead, Dormant or Infected
 - RPA (Root protection area)
 - UNCATEGORISED VEGETATION
 - Existing tree recommended for retention/ removal
 - Existing tree recommended for retention/ removal
 - Existing tree recommended for retention/ removal

A		Revised by: MT		DATE: 27.05.21	CHECKED BY: MR	DATE: 27.05.21
PURPOSE OF ISSUE		For Planning		RIBA STAGE		2
DRAWING STATUS: For Planning Submission						
PROJECT TITLE: The Chantry, Bishopthorpe						
CLIENT: Vincent & Brown Architects						
DRAWING TITLE: Tree Impact Plan					SCALE: 1:200@A1	
DATE: 17.05.2021	DRAWN BY: MT	CHECKED BY: MR	APPROVED BY: MT			
DRAWING NUMBER: PROJECT NO TYPE UNIQUE NO REVISION						
2820 - 00 - 102 -						
York Office: Blake House, 18 Blake Street, York, YO1 5GZ Tel: 01904 800 800 www.lanproservices.co.uk						



PROPOSED CROWN REDUCTION/LIFTING TO THE NORTH EAST CORNER OF THE CROWN OF T1

PROPOSED EXTENSION

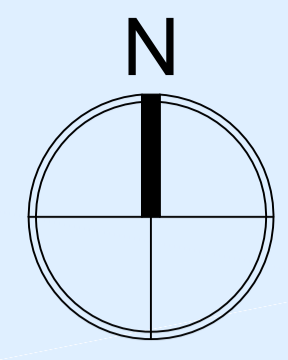
EXISTING BUILDING RETAINED

Chantry Lane

FERRY LANE

Ferry Lane

RIVER OUSE
 River Ouse



St Andrews Church

THE CHANTRY Main House

Tennis Court