

Document Control Sheet

Document Title:	Arboricultural Method Statement
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Project Title	Knolle Park, Liverpool AMS

Revision History

Date:	Version No.	Summary of Changes:
21.10.2015	1.0	First draft
21.10.2015	1.1	Second draft
22.10.2015	1.2	Final draft

Approvals

Approved by:	Signature	Date:	Version:
Matthew Harmsworth	MW Harmsworth	22.10.2015	1.2

Distribution

Name:	Title:	Date:	Version:
Richard Gee	Director / Roman Summer Associates	22.10.2015	1.2
Samuel Beilin	St. Gabriel's (Liverpool) Limited	22.10.2015	1.2

Re-Survey Date

Survey Type:	Lifecycle:	Re-survey Date:
Arboricultural Method Statement	Planning only	Not applicable

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1. Introduction

- 1.1 This Arboricultural Method Statement in line with BS5837: 2012 Trees in Relation to Design, Demolition & Construction Recommendations, has been prepared in relation to an application for development at Knolle Park in the Liverpool City Council control area.
- 1.2 The report has been commissioned to provide details of how the retained trees at the site will be protected through the implementation of development.

The scope of this project is singular:

Provide an arboricultural method statement, specifically in relation to the physical protection of trees, through the course of development, both above and below ground.

1.3 This report and the plan attached within are part of a comprehensive site evaluation and progressive consultancy to reach this current point. We were commissioned at the start of this project and provided advice located within the arboricultural impact assessment 15_5837_05_03 dated 18th May 2015 version 1.1.

2. Documents Provided

- 2.1 As background information the following documentation has been provided / been available to prepare this report:
 - Report 15_5837_05_03
 - 0201-SK063 (Proposed site plan preferred)

3. Relevant Background Information

3.1 Planning History

- 3.1.1 A successful pre-application dialogue has progressively lead to the stage whereby a full planning application is to be submitted for the construction of residential units with associated soft and hard landscape .
- 3.1.2 Although the AIA was considered acceptable, it has been requested that an Arboricultural Method Statement (AMS) be prepared to provide details of how the retained trees will be physically protected through the course of development and that this report will be submitted with a full application.

3.2 Site Description

- 3.2.1 The site is a 3.8ha plot situated in the local authority control area of Liverpool City Council. St. Gabriel's Convent is located southeast of Liverpool City Centre in the Woolton District. The site is accessed from Beaconsfield Road with Church Road forming the eastern boundary.
- 3.2.2 The site is home to a large detached Grade II Listed Villa that has seen various phases of re-development and adaption over the years. The main house is located toward the centre of the site with additional detached buildings on the extreme west of the site. The site is served by an infrastructure of tarmac roads and pathways although many of these have become overgrown since the former care home closed some 13-years ago.

3.2.3 The site is currently disused and occupied by a skeleton staff, the former care home has expansive grounds with a range of native and non-native tree and shrub cover. Much of the shrub and tree cover is extending into the built-footprint as a result of a lack of management in recent years.

3.3 Development Proposal

- 3.3.1 The proposed development comprises the demolition of the existing dilapidated buildings whilst retaining St Gabriel's Convent building. The main convent building is to be converted to apartments, in addition an extension to the Convent will replace the existing German Wing providing further apartments.
- 3.3.2 The Orangery House is to be converted into a detached house and the Greek Lodge (gate house) will be converted into a detached house. In addition three buildings are to be constructed as villas with a further four detached houses and one semi-detached unit.
- 3.3.3 From the first instance all new buildings have been designed to avoid the higher quality tree population whilst retaining a parkland feel.

3.4 Tree Protection: Legal Status

- 3.4.1 The Local Planning Authority (LPA) has been contacted to establish whether any trees contained within the red line boundary are protected by either a Tree Preservation Order (TPO) or are within a Conservation Area.
- 3.4.2 An area tree preservation order was found to be in force and this was confirmed in an email from Michael Anders, Liverpool City Council Tree and Landscape Officer, in an email to Matthew Harmsworth received on the 26th May 2015. No Conservation Area designation applies to this site.
- 3.4.3 Usually if full planning consent is granted then any trees which require felling to implement the approved plans are exempt from statutory protection. It should also be considered that any proposed tree works detailed in the Tree Schedule are also implemented as part of the planning decision consent.
- 3.4.4 This report does not consider the general requirements of the Forestry Act 1967, as full planning permission is exempt from the need for a felling license.

4. Arboricultural Survey Data

4.1 Data Collection

- 4.1.1 Matthew Harmsworth initially undertook site visits on the 7th May 2015 and trees were inspected from ground level only.
- 4.1.2 The survey recorded twenty individual trees, nine groups and one woodland block. The complete data collection methodology for the tree survey is provided within the appended arboricultural data tables located within report 15_5837_05_01-1.1.

4.2 BS5837: 2012 Tree Categorisation

4.2.1 BS5837: 2012 sets out the methodology for surveying trees on potential development sites in order to identify them within a prioritised system of retention categories, as summarised below and given in full within the BS5837: 2012 Cascade Chart for Tree Retention.

<u>A Category Trees</u> of high quality and value in such a condition as to be able to make a substantial contribution for a minimum of 40 years

<u>B Category Trees</u> of moderate quality and value in such a condition as to make a significant contribution for a minimum 20 years

<u>C Category Trees</u> of low quality and value currently in adequate condition to remain until new planting could be established and expected to remain for a minimum of 10 years, or young trees with a stem diameter less than 150mm measured at 1.5 meters above ground level.

<u>U Category Trees</u> in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural or forestry management.

4.2.2 Additionally, BS5837: 2012 provides subcategories 1-3 within the category system outlined above which indicate the area(s) in which a tree or group retention value lies. An explanation of these values is given within the BS5837: 2012 Cascade Chart for Tree Retention at Appendix 3:

Retention values that are mainly arboricultural Retention values that are mainly landscape. Retention values that are mainly cultural, including conservation.

- 4.2.3 In line with BS5837: 2012, A and B category trees should be considered as a constraint on site and provide a substantial contribution to the site. As a result, A and B category trees should be retained and incorporated into the scheme where possible.
- 4.2.4 Generally C and U category trees are considered to be of low quality or are young specimens that can be readily replaced and therefore should not be a constraint in terms of future development.
- 4.2.5 However, it is generally considered desirable to retain trees wherever reasonably possible to ensure continuity of tree cover and to provide a mature landscape to the development.

4.3 Summary of Data

- 4.3.1 The survey contains twenty individual trees, nine groups and one woodland block (see Table 1 below). The comments including species, age, condition and the BS5837: 2012 retention category for each individual tree and group of trees are provided in detail in the Tree Schedule.
- 4.3.2 The location of each individual tree and their associated constraints are illustrated on the Tree Protection Plan Plan.

Retention category	Individual Trees	Groups of Trees	Woodland	Total
А	7	0	0	7
В	8	5	1	14
С	4	2	0	6
U	2	2	0	4
Total	21	9	1	31

4.4 Summary of Tree Resource

- 4.4.1 Full details of the tree population can be found in the AIA but is summarised below.
- 4.4.2 Tree cover at St. Gabriel's is a mix of remnant, formal planting and self-set natural regeneration dominated by some magnificent mature beech trees to the north of the convent. In the wider locality tree cover is predominantly located within residential gardens.
- 4.4.3 The majority of the tree population is mature in mature, highly visible and of high landscape and amenity value. Tree cover on the periphery of the site is still predominantly mature in nature but dense shrubbery and self-set regeneration is present in the under-storey.
- 4.4.4 The mature tree cover located within the grass areas north of the house are of high value and have predominantly been graded A1. These trees should be retained and protected and opportunities exist to prolong their safe useful life expectancy by reducing compaction beneath the crowns.
- 4.4.5 Many dead dying and dangerous trees are scattered through the grounds, this should be considered before works commence. Some considerable amount of tree safety work is required bordering Beaconsfield Road and Church Road but this is outside the scope of this report. Individual trees in this area may have been downgraded accordingly as a result of their decline.

5. Works Phasing

- 5.1 This method statement makes a number of recommendations for the site.
- 5.2 For convenience, all of the recommendations in this report have been listed in Table 2 below, with the relevant sections and appendices provided.
- 5.3 In order to ensure a successful tree retention and development it is imperative that all of these recommendations are carried out in a similar order to the tabulated form below.

Table 2: Works Phasing Programme

PHASE / TIMING	RECOMMENDATION
IMMEDIATE	UNDERTAKE FACILITATION PRUNING AND FELLING.
IMMEDIATE	APPOINT ARBORICULTURAL CLERK OF WORKS (ACOW) TO OVERSEE ALL ARBORICULTURAL ISSUES ON SITE.
IMMEDIATE	ERECT TREE PROTECTION FENCING TO BS: 5837:2012 SPECIFICATIONS AS APPROPRIATE.
IMMEDIATE	INITIAL / PRECONTINUANCE MEETING
DURING CONSTRUCTION	IMPLEMENT REPORTING PROCESS FOR ALL UNFORESEEN ARBORICULTURAL INCIDENTS
DURING CONSTRUCTION	IMPLEMENT USE OF PROGRESS SHEET TO BUILD UP EVIDENCE BASE OF GOOD PRACTICE ON SITE
DURING CONSTRUCTION	MONITORING SITE VISITS BY ACOW TO ENSURE CONTINUED COMPLIANCE
DURING CONSTRUCTION	WORKS WITHIN THE RPA OF RETAINED TREES
POST CONSTRUCTION	POST DEVELOPMENT INSPECTION TO IDENTIFY ANY REQUIRED REMEDIAL WORKS
POST CONSTRUCTION	REMEDIAL DE-COMPACTION UNDER RETAINED TREE WHERE REQUIRED
POST CONSTRUCTION	GENERAL MAINTENANCE / REMEDIAL TREE WORKS
POST CONSTRUCTION	ANNUAL TREE INSPECTION

6. Pre-Development Works

6.1 Enabling Felling

- 6.1.1 In undertaking the proposal as indicated on the latest plans, there will be the direct loss of three trees within W25 adjacent to the gate house, four trees within G16 and one tree designated T13.
- 6.1.2 In addition to the direct tree losses highlighted at 6.1.1 an additional three trees within G14, tree T19 and tree T3 are to be felled for sound arboricultural reasons.

6.2 Facilitation Pruning

- 6.2.1 Some facilitation pruning maybe required to erect the tree protection fencing. This will take the form of light crown lifting around the periphery of the site to install the HERAS fencing and allow machinery access.
- 6.2.2 In addition to the enabling felling and facilitation pruning it was highlighted in the report 15_5837_05_03-1.1 that some tree safety works maybe required. We would suggest a walkover tree safety survey is carried out and this work is discussed and agreed with the ACoW and Liverpool City Council before construction commences.

7. Arboricultural Clerk of Works *ACoW

- 7.1 It is recommended that the developers appoint a suitably qualified arboriculturalist to act as an Arboricultural Clerk of Works ACoW. The ACoW will be engaged to monitor and oversee the implementation of the works required in this method statement.
- 7.2 The role of the ACoW is a relatively formal one. Normally their involvement should be limited to a number of site visits where decisions can be made relatively quickly. In the case of this development the following occasions are where the ACoW will be required:
 - Initial meeting (usually the pre-commencement meeting see section 6.4) to ensure all required tree protection is in place, and to discuss any required amendments with the Local Planning Authority Senior Environmental Planner or Tree Officer.
 - Monitoring visits Regular informal inspections to ensure that all tree protection measures are being maintained, and to inform the Site Manager where appropriate measures are not in place.
 - Supervision during works within the RPA's of retained trees as detailed within the tree protection plan (if appropriate)
 - Completion meeting To inspect trees to assess for any required works and to confirm that the development has been sufficiently completed, and the tree protection measures can be removed.
- 7.3 The ACoW will also be the first contact for arboricultural advice for any issues that arise which are not detailed in this report, such as extra tree works, any required work within the root protection areas (RPA) of the trees on site, any damage that has occurred to any of the trees or any breach of the tree protection measures on site.

8. Pre Commencement Site Meeting

- 8.1 It is recommended that a pre-commencement site meeting be undertaken prior to any onsite works commencing. This meeting will enable the Senior Environmental Planner to visit the site with the Arboricultural Clerk of Works (ACoW) and inspect the tree works undertaken, the protective fencing and to ensure all parties are satisfied.
- 8.2 Regular site visits will then be undertaken following this by the ACoW to ensure protective measures are in place and file notes will be prepared and filed. Once the tree protection measures have been confirmed as acceptable, they can be "signed off" on the progress sheet.

9. Reporting Process

- 9.1 If during the construction any damage to either the trees or the Root Protection Areas is sustained, this should be reported to the Site Manager immediately. At the earliest possible time the Site Manager should inform the ACoW, who will undertake a site visit to assess the impact on the trees and make recommendations for any required works.
- 9.2 Possible damage to the trees or the Root Protection Areas could be: collision damage to crowns of retained trees by site vehicles; excavation within Root Protection Area; dumping of soil / materials within Root Protection Area; Chemical / cement spillage into Root Protection Area or fire damage to the crown / stem of the tree.

10. Progress Sheet

- 10.1 During the various stages of the development it will be helpful to keep a record of the completion of the various tree protection works. This will then provide the Senior Environmental Planner, with sufficient evidence that all practicable steps have been taken to prevent damage to the trees.
- 10.2 A separate progress sheet should be completed for each completed operation. The original should be kept, with the copy of this document that will be retained by the Site Manager in the site office. Once completed a copy should be sent to the ACoW and the Senior Environmental Planner.

11. Tree Protection

11.1 Fencing Specification

- 11.1.1 Prior to any construction or vehicular movement tree protective measures must be in place as highlighted on the tree protection plan. The ACoW will check this prior to the commencement of works. It shall be set out as per the detail on the tree protection plan.
- 11.1.2 These protective measures ensure suitable protection of trees and associated soils. The key method of tree protection is through the use of tree protection fencing.

- 11.1.3 Tree protection fencing shall be set out as per the detail on the tree protection plan; it shall be identified as such using signage. Where additional space is required, this shall be negotiated with the ACoW.
- 11.1.4 The tree protection fence/barrier once erected will not be moved or relocated without written approval from Liverpool City Council. The tree protection area behind the fence/barrier (the Development Exclusion Zone) will be sacrosanct throughout development and no access will be allowed to this area including for example the storage of or moving of materials or machinery. In the Development Exclusion Zone, there will be no excavations or increases in soil level (beyond those described) without prior written approval from the Council. The location of protective fencing is illustrated on the Tree Protection Plan and this will also be placed within the site offices.
- 11.1.5 The barriers will be made from scaffold in a vertical and horizontal framework, as shown as Figure 2 in BS5837: 2012 with vertical tubes up to 3 meters apart.
- 11.1.6 The framework will be braced to resist impacts. On to the scaffold framework, weld-mesh panels will be secured with wire or scaffold clamps and driven into the ground. This method will be implemented where the tree protective fencing is permanent and not to be moved for the entirety of the development.
- 11.1.7 The RPA's of all trees shall be respected until the ACoW is present on site to supervise the breakup of hard surfaces adjacent to the root crowns of retained trees. At this point with the supervision of the ACoW the protective fencing will be moved to allow works to take place.
- 11.1.8 The rear support for all tree protective fencing will be constructed by attaching a supporting strut scaffold pole to the main fencing with the other end having a pin driven through the hole into the soil for anchorage. This method will significantly reduce the risk of damaging any major roots whilst still giving the structure rigidity.
- 11.1.9 There will be clear and visible signs attached to the protective fencing with the following "Tree Protection Area – Keep Out" and the area will be regarded as sacrosanct by everyone. This will be checked prior to the commencement of work by the ACoWs and throughout the course of development.
- 11.1.10The tree protection fencing denotes the Development Exclusion Zone. Therefore, the following must be carefully considered when planning site operations to ensure that wide or tall loads or plant with booms, jibs and counterweights can operate without coming into contact with retained trees. Any transit or traverse of plant in close proximity to trees should be conducted under the supervision of a banks person to ensure that adequate clearance from trees is maintained at all times.
- 11.1.11 Material that will contaminate the soil such as concrete mixing, diesel oil and vehicle washing should not be discharged within 10m of the tree stems.
- 11.1.12Fires should not be lit in a position where their flames can extend to within 5m of foliage, branches or trunk. This will depend on the size of the fire and the wind direction.
- 11.1.13At the end of the project the fence will be removed only after confirmation by the ACoW and Council.
- 11.1.14A detailed Tree Protection Plan (see attached) will be located within the site cabins throughout the course of development. This will include details of the fencing specification and location for which the fence will be erected. This element should be conditioned for implementation. This plan will be printed at no less than A1 in size to ensure easy reading of all the detail contained within.

11.2 Proposed works within Root Protection Area (RPA)

- 11.2.1 Throughout the site extensive works are required within the RPA's of retained trees when drawn as per BS5837. In some cases the actual rooting area of these trees are constrained by the built environment. Close liaison will be required with the ACoW to ensure this is managed correctly on the ground.
- 11.2.2 The higher quality tree population is located in the centre of the site within a grass matrix that is encircled by tarmac roadways. These roadways are to be retained and upgraded and should not effect the retention trees located adjacently behind tree protection fencing.
- 11.2.3 The roadway between T1 and T13 is to be removed, the road surface should be carefully lifted under ACoW supervision and all tree protection fencing respected.
- 11.2.4 Some lifting of existing surfaces maybe also be required throughout the site but this shall be carried out under arboricultural supervision.
- 11.2.5 Finally in relation to works within the RPA of retained trees we will highlight again that it is essential an ACoW is commissioned at an early stage on this project to ensure the survivability of retained tree cover. Suitable arboricultural contractors should be employed to carryout the facilitation and enabling works and should have a working knowledge of both BS 3998 Recommendations for Tree-works 2010 and BS5837 2012.

12. Post Construction Works

12.1 Post Development Inspection

- 12.1.1 Following the completion of the development an inspection of the condition of retained trees will be made to assess if any further tree works are required.
- 12.1.2 Where the soil around any tree is found to be compacted appropriate remediation will be undertaken. This will be prescribed by the ACoW and could include soil aeration or manual digging/forking to loosen the soil increasing drainage and aeration.
- 12.2 Annual Inspection
- 12.2.1 An annual inspection of trees will be undertaken post construction for the duration of two years following completion. It is not anticipated that the condition of trees will significantly change following the development's completion, but a continued monitoring of the trees' condition will be made by the ACoW. Where appropriate remedial works will be undertaken to improve the environment for trees or to make the trees safe.
- 12.2.2 This annual inspection will also include an assessment of new planting included within the landscaping plan.

13. Mitigation Planting

13.1 New Tree Planting

- 13.1.1 Extensive new tree planting is planned across the site and particularly on the western portion. Any new tree planting should be both robust and sustainable with a wide species spread to ensure survivability from pests and diseases. Trees should be planted in dedicated tree pits with below ground root rain or similar irrigation systems installed.
- 13.1.2 Provision should be made for several years of aftercare for all tree planting.

14. Conclusions

- 14.1.1 The tree survey for the permitted development requires the removal of eight trees to directly facilitate the project and a further five trees for sound arboricultural reasons.
- 14.1.2 The remaining tree stocks on site will be fenced off behind tree protection fencing and the impacts will be minimal.
- 14.1.3 It is critical that all protective fencing is installed and erected prior to the commencement of any other works on site. Following installation of tree protection a site meeting will be undertaken with the Tree and Landscape Officer of Liverpool City Council to ensure satisfaction of all parties prior to any on site works commencing.
- 14.1.4 Works must be managed so that compaction within the RPA's does not increase particularly in the region of T11 to T20 and T1 and T2.

15. Report Limitations and Qualifications

15.1 Report Limitations

- This is an arboricultural report and as such no reliance should be given to comments relating to buildings, engineering or soil
- This is not a full arboricultural health and safety survey
- The inspection was undertaken from ground level
- · Trees are growing dynamic structures
- · The comments of this report are valid for a period of one year from the date of report
- · No tree is ever absolutely safe due to the unpredictable laws and forces of nature

15.2 Qualifications

- 15.2.1 The principal author of this report is Matthew Harmsworth Tech.Arbor.A, DipRS. Matthew is a Technical Member of the Arboricultural Association and Consulting Arborist Society.
- 15.2.2 The qualifications and experience of each consultant can be provided on request.

16. References and Relevant Legislation

- I. British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction Recommendations'.
- II. British Standard 3998:2010 'Tree work Recommendations'.
- III. The Forestry Act 1967.
- IV. The Town and Country Planning Act 1990.
- V. The Town and Country Planning (Trees) Regulations 1999.

APPENDIX 1 - Arboricultural Data Tables

tree no	species	height	DBH (mm)	RPA (av. radius)	crown spread N- E-S-W	height to 1 st significant branch	age class	condition	structural condition	preliminary management recommendations	estimated remaining years	Category grade	
	Individual Trees												
T1	Sweet Chestnut	13	1250	707	7-6-9-5	2 N	V	Fair	Stunted habit. Veteran chestnut, hollow, deadwood present, extensive decay and cavities noted.	Crown lift and remove major deadwood.	20+	B1	
T2	Beech	19	1100	547	8-7-5-4	3 N	М	Good	Leaning East. Tree located within hard surface area. Crown distorted due to group pressure.	Remove major deadwood. Prune clear of building.	40+	B1	
T3	Sycamore	16	430	84	2-1-6-3	2 S	EM	Poor	Limited long-term prospects. Low vitality. Declining. Leaning South. Dieback in crown. Low bud/leaf density. Major deadwood in crown. Crown distorted due to group pressure.	Remove tree and root.	<10	U	
Т6	Turkey Oak	9	250	28	4-4-4-4	0 W	SM	Fair	Self set on boundary line.	Remove if required to facilitate proposal.	20+	C1	
T7	Sycamore	9	280	35	4-4-4-4	0 N	SM	Fair	Self set regeneration located on boundary line.	Remove if required to facilitate proposal.	20+	C1	
Т8	Hawthorn	7	180	15	3-3-3-3	1 E	М	Fair	Set regeneration located on boundary line.	Remove if required to facilitate proposal.	20+	C1	
T10	Horse Chestnut	18	750	254	5-5-5-5	4 S	М	Fair	Tree located within hard surface area. Epicormics on stem. Exudation on stem. Low branches over road/ footpath. Branches restricting highway light.	Remove major deadwood. Crown lift to 5m.	20+	B1	
T11	Beech	23	1300	707	9-10-10-9	5 S	OM	Good	High quality mature specimen. Adaptive growth and structural defects in main fork but most probably superficial.	No works required.	40+	A1	

tree no	species	height	DBH (mm)	RPA (av. radius)	crown spread N- E-S-W	height to 1 st significant branch	age class	condition	structural condition	preliminary management recommendations	estimated remaining years	Category grade
T12	Horse Chestnut	18	890	358	8-8-8-9	3 S	ОМ	Fair	Low vitality. Helical growth form. Phytophora noted. Downgraded as a result. Top third of crown thin.	Crown lift to 5m over road.	20+	B1
T13	Horse Chestnut	18	750	254	9-8-8-9	4 W	М	Fair	Tree located within hard surface area. Major bark wounding on stem. Low branches over road/ footpath. Branches restricting highway light. Cavity present in old pruning wound.	Crown lift to 5m over road.	40+	B1
T15	Small-leaved Lime	22	960	417	7-3-5-5	3 N	М	Good	Tree located within hard surface area. Epicormics on stem. Broken branches in crown. Fine tree seen from roadside.	Remove epicomics. Remove major deadwood. Crown lift to 5m.	40+	A1
T17	Beech	23	1170	619	9-12-10-11	3 W	ОМ	Good	Tree located within hard surface area. Stem divides above 1.5m. Included bark present in main fork. High quality prominent tree.	Crown lift to 5m over road.	40+	A1
T18	Beech	21	1200	651	13-10-9-9	6 E	ОМ	Good	Branches encroaching upon building. Large prominent tree, adaptive growth on lower bole.	Prune clear of service wires. Prune clear of building.	40+	A1
T19	Sycamore	17	450	92	2-5-3-6	1 W	М	Poor	Dieback in crown. Low bud/ leaf density. Unbalanced crown shape. Crown distorted due to group pressure. In heavy decline, suspect kretzschmaria present.	Remove tree and root.	<10	U

tree no	species	height	DBH (mm)	RPA (av. radius)	crown spread N- E-S-W	height to 1 st significant branch	age class	condition	structural condition	preliminary management recommendations	estimated remaining years	Category grade
T20	Copper Beech	19	980	434	10-10-7-8	3 N	М	Fair	Leaning North. Unbalanced crown shape. Head lean toward entrance road.Adaptive growth noted.	No works required.	20+	B1
T22	Sweet Chestnut	18	1250	707	7-11-9-9	4 N	ОМ	Good	Leaning East. Tree located within hard surface area. Low branches over road/ footpath. Branches restricting highway light. Branches encroaching upon building. Located at site entrance. Seen from roadside.	Remove major deadwood. Crown lift to 3m over footpath. Prune clear of service wires.	40+	A1
T23	Field Maple	12	450	92	5-4-5-5	2 N	М	Good	Stunted habit. Leaning South-East. Low branches over road/footpath. Unusual to see at this age.	Crown lift to 3m.	40+	B1
T24	Field Maple	11	900	366	5-5-5-5	1 W	V	Good	Decay and cavities noted but typical of a tree of this age.	No works required.	40+	A1
T26	Holly	6	220	22	3-3-3-3	1 N	SM	Fair	Limited long-term prospects.	Remove if required to facilitate proposal.	10+	C1
T27	Yew	9	900	366	7-6-8-8	1 E	ОМ	Good	Tree located within hard surface area. Stem divides at ground level. Low branches over road/ footpath. Branches encroaching upon building.	Crown lift to 3m over footpath. Prune clear of building. Fell adjacent dead stem.	40+	A1
Т30	Beech	19	1100	547	8-7-8-6	3 E	М	Fair	Major deadwood in crown. Crown distorted due to group pressure.	No works required.	40+	B1
							G	roups				

tree no	species	height	DBH (mm)	RPA (av. radius)	crown spread N- E-S-W	height to 1 st significant branch	age class	condition	structural condition	preliminary management recommendations	estimated remaining years	Category grade
G4	Sweet Chestnut Beech	18	600	163	7-5-6-6	n/a	М	Fair	Group of late mature trees. Excellent habitat value. Beech nearest builtfootprint is collapsing with decay fungus.	If this area is developed tree safety works will be required.	10+	В3
G5	Sycamore	9	300	41	3-3-3-3	0 N	SM	Fair	Multiple stemmed self set regeneration located on boundary.	Remove if required to facilitate proposal.	20+	C3
G9	Sycamore Small-leaved Lime	19	450	92	5-5-5-5	0 N	М	Fair	Tree located within hard surface area. Epicormics on stem. Crown distorted due to group pressure. Low branches over road/ footpath. Group of 3 limes and one sycamore. Sycamore in very poor condition.	Fell sycamore, remove epicormic growth and crown lift to clear road and fence.	20+	B1
G14	Sycamore	14	350	55	5-5-5-5	n/a	М	Poor	Limited long-term prospects. Poor shape & form. Low vitality. Declining. Ivy on stem. Unable to inspect stem due to undergrowth. Dieback in crown. Low bud/ leaf density. Crown distorted due to group pressure. Low branches over road/ footpath. Declining trees, ivy clad adjacent to road.	Remove tree and root.	<10	U

St. Gabriels Convent - Arboricultural Data Tables

tree no	species	height	DBH (mm)	RPA (av. radius)	crown spread N- E-S-W	height to 1 st significant branch	age class	condition	structural condition	preliminary management recommendations	estimated remaining years	Category grade
G16	Sycamore	16	350	55	5-5-5-5	n/a	М	Poor	Limited long-term prospects. Low vitality. Declining. Unable to inspect stem due to Ivy. Dieback in crown. Low bud/leaf density. Unbalanced crown shape. Crown distorted due to group pressure. Poor annual extension.	Remove tree and root.	<10	U
G21	Holly	10	280	35	As shown	n/a	М	Good	Group of holly and laburnam. Dense laurel adjacent.	Clear out laurel and retain specimens.	20+	B3
G28	Beech	18	800	290	6-8-8-7	n/a	М	Fair	Prominent trees can be seen from roadside.	No works required.	40+	B2
G29	Beech Holly Small-leaved Lime Sycamore	15	375	64	As shown	n/a	EM	Good	Mixed quality and species, forms useful screen.	Thin to best stems.	40+	C3
G31	Beech Sycamore Common Lime	18	Various	To crown edges	As shown	n/a	М	Fair	Some mature trees in mixed conditions with underplanting of shrubbery. Possible outgrown hedging.	Thin to best stems.	40+	B2
							Wo	odland				
W25	Holly Field Maple Sweet Chestnut Beech	24ma x	Various	To crown edges	As shown	n/a	EM-OM	Fair - Good	Area of woodland dominated by tall beech and lime. Understorey of laurel and holly. Large collapsed dead horse chestnut within. Many stems require tree safety works adjacent to road.	Carryout tree safety works adjacent to road, fell dead horse chestnut, clear out non-natives.	40+	B3
							End o	f Records				

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Arboricultural Data Tables Terms

Tree Number	Reference number (T1, T2 etc for trees / G1, G2 etc for tree groups / H1, H2 etc for hedgerows)
Species	Common name
Height	Height of tree to the nearest metre
DBH	Diameter of stem (mm) at breast height (1.5 metres above ground)
RPA radius (m)	The radial measurement of the Root Protection Area in metres indicating the minimum distance from the centre of the trees stem to the recommended position of the protective (Heras) fencing.
RPA (m2)	The Root Protection Area, measured in square metres. This measurement is directly proportional to and calculated from the trees DBH measurement as specified in section 4.6 of BS 5837 (2012) Trees in relation to design, demolition and construction – Recommendations.
Crown Spread	The maximum spread of the trees canopy measured from the stem in four directions (North, East, South, West)
Age class	The estimated age class of the tree (relative to species) O Y - Young O SM - Semi-mature O EM - Early-mature O M - Mature O LM - Late-mature
Comments	A brief description of the tree which refers to tree form, condition, health and significant defects. Comments regarding environmental conditions affecting the tree (e.g. ground conditions) will also be included where relevant.
Preliminary management recommendations	Recommendations (made with respect to the development proposals if available) for removal, retention and/or remedial arboricultural works.
Estimated remaining years	Estimated safe, usable life expectancy
Category grade	 Tree categorisation based on section 4.5 of BS 5837 (2012) Trees in relation to design, demolition and construction – Recommendations. Four categories are used (A, B, C, U) with categories A, B & C being assigned one of three separate sub categories (1, 2 or 3): A – Trees of high quality with an estimated remaining life expectancy of at least 40 years. B – Trees of moderate quality with an estimated remaining life expectancy of at least 20 years. C – Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm Subcategories: 1: Mainly arboricultural & aesthetic qualities 2: Mainly landscape qualities 3: Mainly cultural values, including conservation U – Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years

Appendix 2 - Tree Protection Plan

