

Arboricultural Impact Assessment

Land adjacent to
38 Park Road
Tan Y Fron
Wrexham

Ref:

AIA/TYF/06/15

Date:

1st July 2015

Commissioned by:

Blueprint Architectural

Prepared by

S. Shields

Arboricultural Impact Assessment

Land adjacent to

38 Park Road

Tan Y Fron

Wrexham

This Arboricultural Impact Assessment has been prepared in accordance with the protocols, standards and procedures set out in BS 5837: 2012 'Trees in relation to design, demolition and construction'.

Summary

It is proposed to develop the site to provide 1 residential dwelling.

An arboricultural assessment undertaken in accordance with BS 5837: 2012 has identified 5 trees and 1 group of shrubs on or adjacent to the site. The proposed development can be undertaken without impacting on any tree or shrub, however the removal and replacement of on tree and the shrub group is recommended as part of the landscape planting for the site.

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Instruction

- 1.1 Shields Arboricultural Consultancy received instructions from Ms L. Parry on behalf of Blueprint Architectural to undertake and Arboricultural Impact Assessment at the above property. The client or their agents may copy and distribute this report as required for the purpose of applying for planning permission for or preparing any documents or plans for this or future applications at this site.
- 1.2 Planning permission is being sought to construct a private residential dwelling on the land.

Scope & Limitations

- 2.1 The purpose of the report is to assess the environmental and amenity values of all trees on or adjacent to the area affected by the proposed development. The report will assess the long-term contribution that the trees can make to the area and the arboricultural implications of retaining them and seek to find a satisfactory juxtaposition between the trees and the new development. The report will assess the potential impact that may arise as a result of the proposed construction works and make recommendations for protecting trees, hedges and shrubs where appropriate
- 2.2 The report is prepared in accordance with the recommendations of the British Standard Document BS 5837: 2012 'Trees in Relation to Construction'.
- 2.3 This report is not an ecological assessment and does not identify habitats or constitute a protected species survey.

Statutory Controls & Obligations

- 3.1 Forestry Act; the felling of trees is controlled by the Forestry Act, which requires that a felling licence is obtained prior to cutting down any trees. The Forestry Act does not apply to the felling of trees growing within an orchard, private garden, churchyard or public open space. The Forestry Commission has the responsibility for enforcing the Forestry Act.
- 3.2 Tree Preservation Orders & Conservation Areas; Local Authorities have specific powers under the Town & Country Planning Act 1990 as amended, to protect trees through the use of Tree Preservation Orders. Where trees are protected under such orders it is a criminal offence (subject to any exemptions for which provision may be made by the act or order) to undertake, cause or permit the cutting down, topping, lopping, uprooting, wilful damage or wilful destruction of trees except with the consent of the local planning authority. Similar controls apply to all trees growing within a designated Conservation Area.
- 3.3 Bats, wild birds and other protected species; The Wildlife & Countryside Act & the Conservation (Natural Habitats & C.) Regulations make it an offence to disturb or destroy bats and bat roosts and wild birds and their nests. Other species of plant and animal are also protected. These creatures often inhabit trees and

sufficient care must be taken to ensure they are not affected during forestry and arboricultural works.

Site description

- 4.1 The site is a small area of land to the rear of 38 Park Road, Tan Y Fron. The site extends to 325m² and slopes moderately down from St Alban's Road to the north. The site shares boundaries with residential properties to the east and west and with the car park and communal areas of a small housing development to the south. The site is at an elevation of 175m AOD and is moderately exposed to the south and east.
- 4.2 The most significant trees are situated on the south boundary, where they form a linear feature in the landscape and provide screening from the adjacent properties.

Soils

- 4.3 Soils appeared to be free draining with no indication of water logging and of reasonable depth, there is no indication of any significant impediments to rooting. Geological maps show underlying coal measures.

*NB. This soil assessment is undertaken in situ using visual and manual techniques and is **only** for the purpose of establishing the influence of site soils on tree growth. The assessment **must not** be relied upon to inform any engineering decisions.*

Development Proposal

- 5.1 It is proposed to develop the land to provide 1 private residential dwelling.

Tree Survey Methodology

- 6.1 All trees within and adjacent to the site have been assessed where they are within 15 m of any area that may be disturbed as a result of the proposed development and have a stem diameter over 75mm at 1.5 metres. Measurements have been taken in accordance with the procedures and protocols set out in BS 5837: 2012 and the Forest Mensuration Handbook. Height measurements are approximate unless otherwise stated. Trees have been assessed as individuals, groups or woodlands as appropriate. Where access to trees has been restricted, either as a result of their situation on private land or where vegetation or ground conditions are unfavourable, an estimation of trunk diameter has been made. This entails using a set of callipers to approximate the measurement. Estimates are rounded up to provide a margin. This technique has only been used where there is a sufficient buffer between the RPAs and any area disturbed by development. Where trees are in woodlands or groups only the outside edge trees are assessed unless there are larger trees with RPAs or crowns that would overlap the edge trees.

- 6.2 BS 5837: 2012 provides the framework through which tree can be categorised in terms of their health, amenity value and long-term viability for retention on a development site. There are four categories, A,B,C & U.

Category A: Trees of high quality and value in such a condition as to be able to make a substantial contribution (a minimum of 40 years)

- 1 Trees that are particularly good examples of their species, or essential components of groups or formal arboricultural features.
- 2 Trees, groups or woodlands that provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance.
- 3 Trees, groups or woodlands of significant conservation, historical, commemorative or other value.

Category B: Trees of moderate quality and value in such a condition to make a significant contribution (a minimum of 20 years)

- 1 Trees that might be included in a higher category but are downgraded because of impaired condition.
- 2 Trees present in numbers, usually as groups of woodlands that form distinctive landscape features.
- 3 Trees with clearly identifiable conservation or other cultural benefits.

Category C: Trees of low quality and value currently in adequate condition to remain until new planting could be established. Trees in this category would not usually be retained if they would pose a significant constraint to development.

Category U: Trees in such a condition that their existing value would be lost within 10 years and which should, in the current context be removed for arboricultural reasons.

The most significant or valuable trees are placed in the categories, A & B. Site design should make provision to retain trees in these categories and most Local Planning Authorities will insist upon this (or in exceptional circumstances will require that significant compensation planting is incorporated into the design), whilst trees that should not be a constraint to development are recorded with a C category. Trees categorised as U are in a poor condition and should be removed prior to the commencement of work.

- 6.3 Where trees are to be retained, it is necessary to ensure that they are suitably protected to avoid damage during the construction phase of the development. It is also important to consider any long term implications, such as issues with shading or leaf litter that may arise as a result of tree retention.
- 6.4 To ensure that trees are not adversely affected by the construction works it is necessary to:

- a. The avoidance of physical damage to the aerial parts of the trees (i.e. Impact and other damage to trunk and branches)
- b. The avoidance of damage to retained trees as a result of the severance or other physical damage to their roots
- c. Preserve of the character of the soil, through the avoidance of any activity that would cause it to become compacted or otherwise disturbed or disrupted, and to avoid contamination by potentially harmful substances
- d. To ensure free gaseous exchange is permitted between the upper layers of soil and the atmosphere
- e. To ensure adequate (but not excessive) water supply to the soil and hence to tree roots

This would normally be achieved by establishing an area, known as a construction exclusion zone (CEZ) around each tree. The CEZ is derived from the root protection area (RPA) and the crown spread of the tree. The RPA represents the area occupied by the tree's root system and is calculated for each tree based on its stem diameter and the ground conditions present taking account of and any impediment to rooting. The RPA should represent the most probable position of the tree's root system.

The CEZ must be considered sacrosanct and be maintained completely undisturbed. No construction should take place within this area and it should not be used for storage of materials or fuels. Access for vehicles machinery or personnel is prohibited and to ensure that it is not damaged by construction activity it must be suitably protected during the construction phase, using robust fencing or alternative ground protection methods, to prevent disturbance and damage occurring.

- 6.5 In addition to the implications that a new development may have for existing trees it is also important to assess any long term issues or concerns that may arise as a result of retaining trees close to a new dwelling or structure. This can include problems associated with leaf litter and other debris that may fall from trees, the potential that a tree has to cause damage to a structure in the future, any on going maintenance requirements that may arise and the level of shade that the tree may cast, it is particularly important to consider the affects of shading where trees are to the south of houses and gardens. Trees can also cause feelings of apprehension to the occupiers of nearby buildings and can have an over bearing impact on a property if adequate space is not provided.
- 6.6 The report assesses all trees with regard to their size, position and natural characteristics, and taking into account of their future growth makes provides recommendations as to their long term suitability for retention.

Arboricultural Assessment

- 7.1 Full details of the tree surveyed are provided in appendix A. and their relative positions, crown spreads, root protection areas are indicated on the attached plans.
- 7.2 No checks have been undertaken to establish the status of the trees with regards to Tree Preservation Orders or Conservation Areas, however all the trees will be subject to the Forestry Act (see section 3.1) and all hedges subject to the Hedgerow regulations (see section 3.3). No trees or hedges should be felled, lopped, topped or in otherwise removed or damaged without prior permission from the relevant authority.
- 7.3 The survey recorded 5 individual trees and 1 group of shrubs, which was categorised as follows:

Category	Quantity
Category A: Trees of high quality and value in such a condition as to be able to make a substantial contribution (a minimum of 40 years)	3
Category B: Trees of moderate quality and value in such a condition to make a significant contribution (a minimum of 20 years)	1
Category C: Trees of low quality and value currently in adequate condition to remain until new planting could be established. Trees in this category would not usually be retained if they would pose a significant constraint to development.	0
Category U: Trees in such a condition that their existing value would be lost within 10 years and which should, in the current context be removed for arboricultural reasons.	2

Arboricultural merits and the significance of the trees in the landscape

- 7.4 There are a number of trees on the south boundary of the site, these form a linear feature and are reasonably prominent in the landscape. The trees also provide a degree of screening to the site from surrounding residential properties.

Arboricultural implications of the development

- 7.5 The site can be developed without the need to remove any tree, however it is recommended that the opportunity is taken to remove and re-plant the boundary hedgerow. An adequate construction exclusion zone can be provided at the bottom of the site. There is an existing mound of loose tipped soil which has recently been placed within the CEZ. This will need to be removed either by hand or by using an excavator working from outside the CEZ. Only the loose soil is to be removed and the underlying ground is to remain undisturbed.
- 7.6 Although the trees are to the south of the development, the steep gradient of the land dictates that the house will be at a significantly higher level than the base of the trees and thus the level of shading

experienced will not be as great as it would on a level site. There are no obstructions to sunlight to the east and west and it is considered that residential amenity will not be detrimentally impacted by the shading from the trees.

7.7 The arboricultural impact of the proposed development is negligible.

Arboricultural Operations

8.1 Not required

Arboricultural Method Statement

- 9.1 This arboricultural method statement (AMS) sets out the details of tree protection measures afforded to the retained trees on and adjacent to the site.
- 9.2 This document should be read in conjunction with the Tree Protection Plan (TPP) which will be issued when detailed plans are prepared for the site. The TPP indicates the construction exclusion zone (CEZ) that must be maintained around each retained tree. These areas must remain undisturbed during the construction process and must be protected using suitable fencing or ground protection as specified.
- 9.3 Copies of the TPP & the AMS must be available on site and all tree protection requirements explained to all persons undertaking activities on the site during the site induction process.
- 9.4 All tree protection measures must be installed and inspected prior to bringing onto the site any plant, materials or equipment or undertaking any construction works or demolition or any arboricultural works. The LPA must be informed in writing once the tree protection measures are installed.
- 9.5 The site is to be inspected by the consulting arboriculturalist in accordance with the schedule of inspections (see 9.17).
- 9.6 All measurements are given in metric using standard abbreviations.

Fencing and Ground Protection

- 9.7 The TPP indicates the position all protective fences.
- 9.8 Protective fencing will comprise herras fencing fixed in place with stakes or as agreed with the Local Planning Authority.
- 9.9 No ground protection is required on this site.
- 9.10 The protective fencing must be inspected on installation and will remain in place until completion of the construction phase and then only removed with the consent of the LPA.
- 9.11 Other than works approved in writing by the LPA, no works including storage or dumping of materials shall take place within the exclusion zones defined by the protective fencing.

General Precautions

- 9.12 No materials that are likely to have an adverse effect on tree health such as oil, bitumen or cement will be stored or discharged within 10m of the trunk of a tree that is to be retained or within any part of the CEZ. Spills kits, suitable for the type fluids, fuels and chemicals stored on site must be available on site and site operatives must have training in their use.
- 9.13 No fires will be lit within 20m of the trunk of any tree that is to be retained.
- 9.14 Storage and mixing areas, contactor parking and all site huts must be outside the CEZ.
- 9.15 Access to the work area is via the main site entrance and must not traverse the CEZ.
- 9.16 All service and drainage routes, below or above ground must avoid the CEZ. All services are to be installed in accordance with NJUG volume 4 Guidelines.
- 9.17 To ensure that all tree protection measures are properly installed and maintained the site shall be monitored by Shields Arboricultural Consultancy to the following schedule. Details of the findings and photographic evidence of the site inspection visits will be reported to the LPA by email within 24 hrs of the visit. All tree protection measures must remain in place until development work is completed and only removed after receiving written confirmation from the LPA.

Schedule of Inspection

- 1. On completion of erection of fencing and installation of ground protection prior to commencement of development works
 - 2. Monthly through out the project
 - 3. On completion of project
- 9.18 Prior to the commencement on site of any work, a competent person is to be appointed to monitor the day to day activities on site. In the case of a tree being damaged or where an unexpected event arises it will be for this person to contact Shields Arboricultural Consultancy to seek advice on contingency measures.

Conclusion

- 10.1 The development of the site can be undertaken with no impact to the existing arboricultural environment.

S.J.A. Shields

**Uni Cert For. & F.P. (Bangor),
Dip. Arb. (RFS), M.Arbor.A, MICFor.
Chartered Forester**

1st July 2015

Arboricultural Assessment

Ref. No.	Species	Top Height	Stem Dia mm	Stems	N	E	S	W	CC	FSB	Age	Rem Cont.	Cat.	RPA m ²	Notes
1	Sycamore (<i>Acer pseudoplatanus</i>)	19	530		5	5	5	5			M	40+	A2	127	Condition: Good RPA: Slightly constrained by car park AIA: Tree is part of a linear group that is prominent in the local landscape and provides a level of screening between the site and existing residential dwellings. Can be retained and protected to the required standard during the development.
2	Sycamore (<i>Acer pseudoplatanus</i>)	16	310, 270, 250	3	6.5	4.5	6	6	3	N	M	40+	A2	105	Condition: Good RPA: Unconstrained AIA: As T1

3	Elder (<i>Sambucus nigra</i>)	6	100		1	1	1	1			M	< 10	U	5	Condition: Poor AIA: It is advisable to remove this tree on arboricultural grounds.
4	Sycamore (<i>Acer pseudoplatanus</i>)	17	290, 230, 170, 330, 240	5	5.2	5.3	5.3	5.6	3		M	40+	B2	150	Condition: Good RPA: Unconstrained AIA: As T1
5	Sycamore (<i>Acer pseudoplatanus</i>)	17	330		5.5	4.1	5	5			M	40+	A2	49	Condition: Good RPA: Unconstrained AIA: As T1
6	Mixed	N/A												U	Condition: Poor AIA: Remnants of old hedge now overgrown with ivy and in poor condition. It is recommended that this be removed and replaced as part of the landscaping of the site.

Ultimate Heights of Main Species

Sycamore 20m

Notes

BS 5837: 2012 provides the framework through which tree can be categorised in terms of their health, amenity value and long-term viability for retention on a development site. There are four categories, A,B,C & U.

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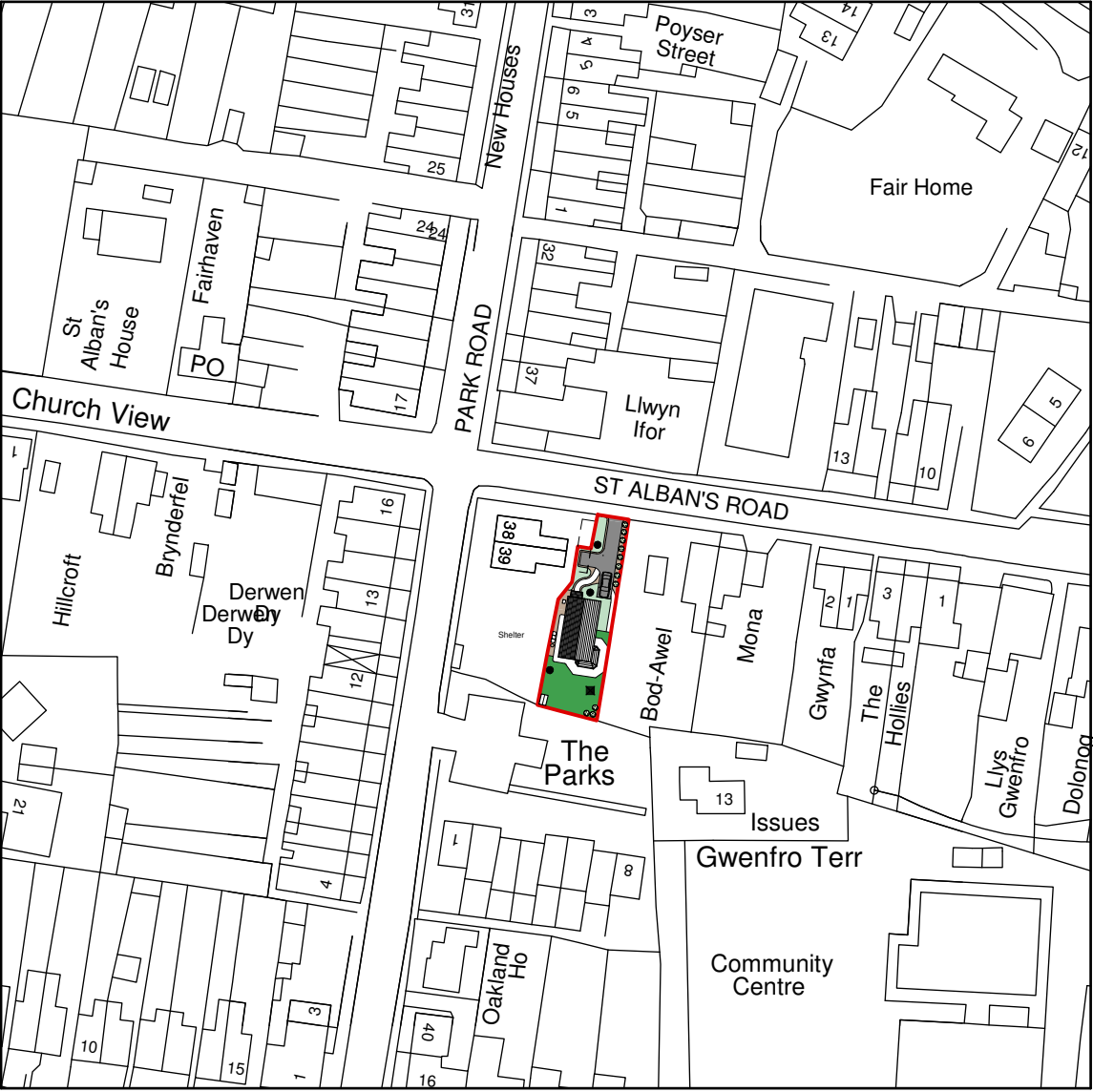
Category U: Trees in such a condition that their existing value would be lost within 10 years and which should, in the current context be removed for arboricultural reasons.

Key

Tag No	Identification number for tree	Species	Species of tree
Top Height	Estimated height of tree	Stem Dia.	Diameter of stem at 1.5 metres
Stems	Number of stems	N, E, S, W	Crown spread at compass points
CC	Crown Clearance	FSB	Direction of first significant branch
Rem. Cont	Remaining safe life expectancy in years	RPA	Root protection area in m ²
Cat.	BS Category (see above)	AIA	Arboricultural Implication Assessment
Age	Y - Young Trees SM Semi Mature EM Early Mature M Mature LM Late Mature exceeds normal life expectancy for species VET Veteran Tree		
Condition	Good Relatively free from defects and / or major pests and diseases Fair Some defects, which could be addressed through tree surgery or minor pests or early symptoms of diseases Poor Substantial defects or terminal decline Dead Dead		



Site Plan 1:200



Location Plan 1:1250

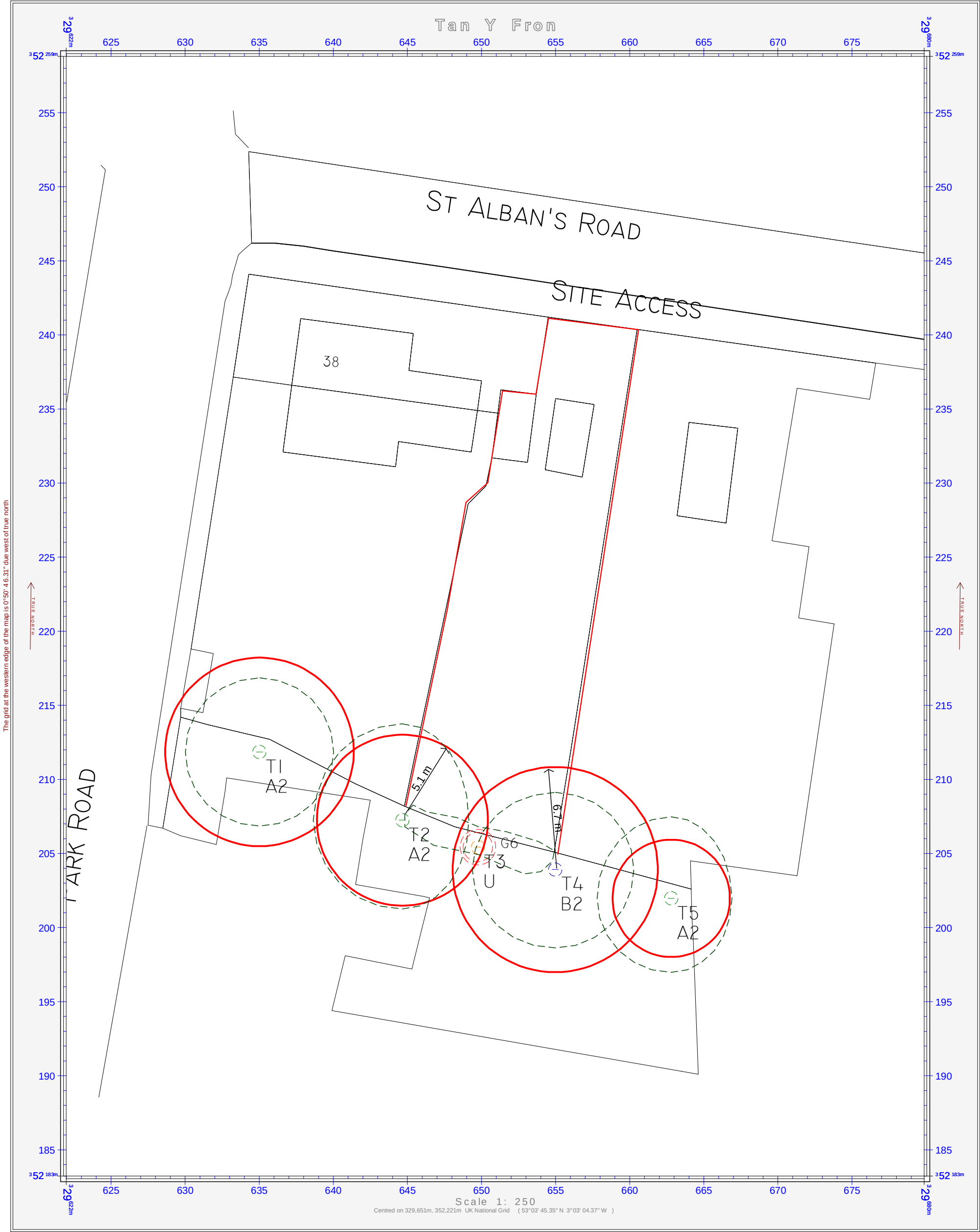
Rev	Date	Detail	Initial

Project: Residential Development at Land adj to: 38 Park Road, Wrexham, LL11 5SG	
Title: Proposed: Site & Location Plan	Scale: (A2) 1:200 & 1:1250

Drawn By: K.A.Hopwood	Date: Apr 2015
Drawing No: R057/002	Sheet: 1 of 1



Redwither Business Centre,
Redwither Business Park,
Wrexham. LL13 9XR
Tel: 01978 356500
www.blueprintarchitectural.com



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Tree & Woodland Management Solutions

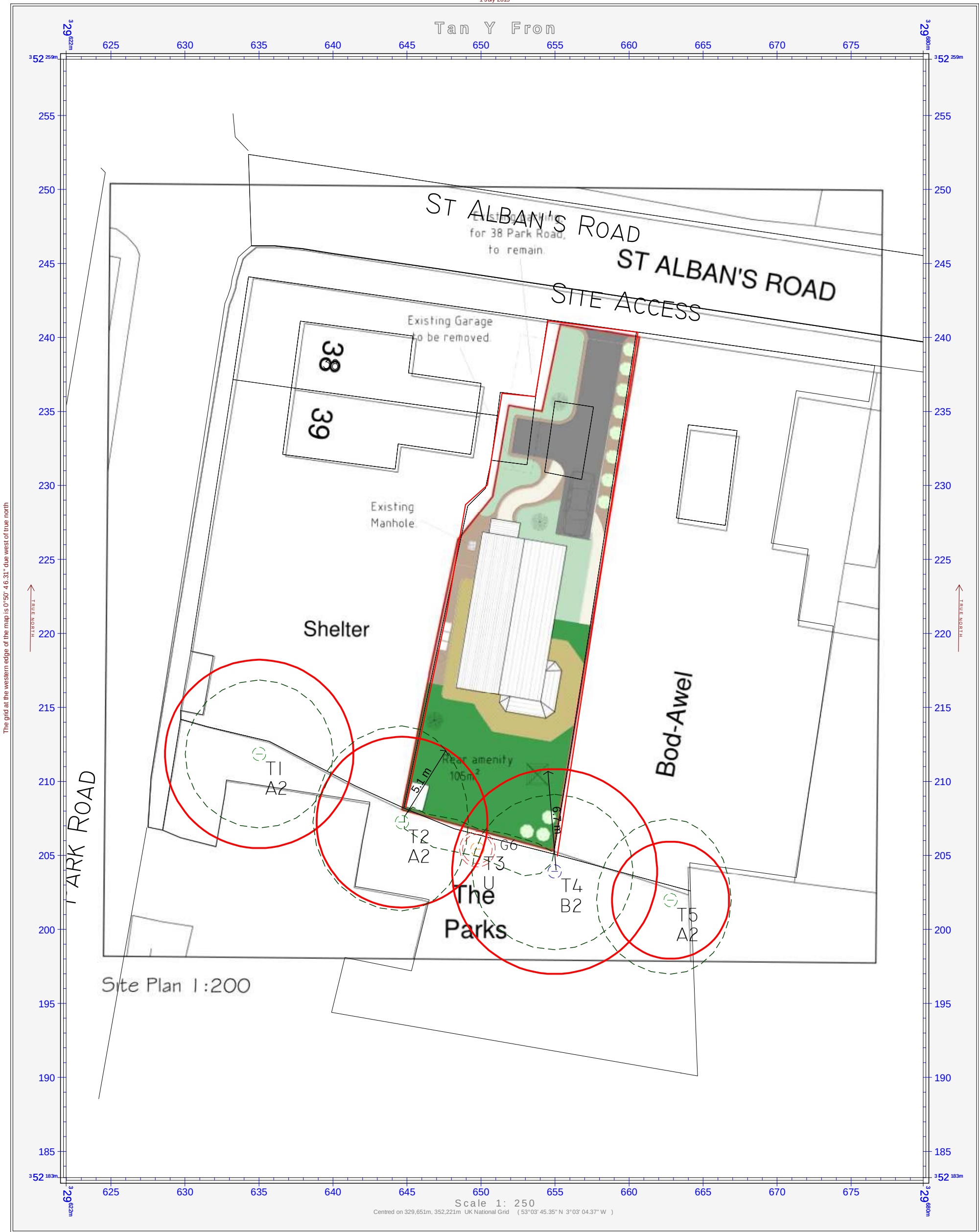
Tree Constraints Plan
38 Park Road
Tan Y Fron
Wrexham

- Legend**
- Tree Cat A
 - Tree Cat B
 - Tree Cat U
 - RPA
 - Canopy Spread
 - Site Boundary

Drawing No: TYF/TCP/06/15/01
Drawn By: S. Shields
Scale: 1:250 @ A3
Date: 1st July 2015
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Tree Constraints Plan
Overlay
38 Park Road
Tan Y Fron
Wrexham

- Legend**
- Tree Cat A
 - Tree Cat B
 - Tree Cat U
 - RPA
 - Canopy Spread
 - Site Boundary

Drawing No: TYF/TCP/OL/06/15/01
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Tree & Woodland Management Solutions

Tree Protection Plan

38 Park Road
Tan Y Fron
Wrexham

Legend

- Tree Cat A
- Tree Cat B
- Tree Cat U
- CEZ
- Tree Protection Fencing
- Site Boundary

Drawing No: TYF/TPP/06/15/01

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