BRITISH STANDARD 5837 TREE SURVEYS ARBORICULTURAL IMPLICATION STUDIES TPO/PLANNIG ADVICE/ PROJECT MANAGEMENT
TREE INVENTORIES AND RISK ASSESSMENTS WOODLAND MANAGEMENT PLANS TREE PLANTING SCHEMES TPO RE-SURVEY






ARBORICULTURAL IMPLICATIONS ASSESSMENT

PROPOSED DEVELOPMENT

AT

THE WILLOWS PRIMARY SCHOOL
WYTHENSHAW

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Date: 31 May 2017
Ref: TRE/TWP

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1.0 Introduction

1.1 Mulberry Tree Management were instructed by the School Governors of The Willows Primary School, Wythenshaw, to carry out an arboricultural survey of trees at their site.

1.2 This report details the arboricultural implications of developing the site, including:

- a survey of the trees on and near the development which may impact the proposal from ground level, noting their location, species and all relevant parameters, i.e. stem diameter, height, crown spread, condition etc;
- providing advice on the removal, retention and management of trees;
- assessment of the potential effects of the proposal on retained trees and vice versa;
- assessment of the requirement for tree protection for the duration of the works;
- mitigation for any loss;
- preparation of a tree schedule;
- and report on the above matters.

1.3 The survey was carried out on 25th May 2017 by means of inspection from ground level by an experienced and qualified arboriculturalist. The inspection can be restricted in cases where trees were Ivy clad or surrounded by vegetation.

1.4 Under *BS5837: 2012 Trees in Relation to Construction - Recommendations*, the assessment of trees is made objectively. The tree categorisation method identifies the quality and value of the existing tree stock, allowing informed decisions to be made concerning development design layout.

1.5 The following documents have been made available by the client:

- Drawing (pdf)- PL01 - Site Plan (REV A)
- Drawing (pdf)- PL02 - Existing and Proposed Fence Elevations
- Drawing (dwg)- 2009_The_Willows_Primary existing

1.6 Tree positions were not plotted on the drawings supplied and have therefore been plotted by Mulberry. Tree placing is expected to be within a tolerance of 1m.

1.7 Weather conditions during the survey were dry and still.

1.8 The survey was carried out noting the conditions of the trees at the time of inspection. As trees are part of the natural environment, conditions can naturally change; therefore the contents of this report are valid for one year only. After this period, re-inspection may be necessary.

2.0 Survey Methodology

2.1 The trees were surveyed (prefixed T, or G for group) and recorded in the tree schedule in appendix one. Where groups are recorded, average height and diameter at breast height (DBH) of the trees in the group are reported. Where access to the base of any trees was limited, stem size was estimated.

2.2 All the trees were assessed using: a grading A to C (retention) and U (removal); condition and age class as defined in appendix two.

2.3 Where appropriate, canopy spread for each tree was recorded at four cardinal points in order to reproduce an accurate representation of the crown shape of the tree on the tree plan in appendix three.

2.4 The survey included all trees within the proposal area and trees near to the proposal.

3.0 Development Proposals

3.1 Due to the proposed development and its associated infrastructure there are a number of locations where the proposals are in close proximity to the trees surveyed. The Site Layout Plan within appendix three identifies the trees in relation to the proposed development.

3.2 In order to fully assess the impact of the proposals an Impact Table has been created detailing each tree, which shows the proximity of the associated works to the tree.

3.3 This can then be assessed in accordance with BS 5837:2012 to determine whether the development will have a detrimental impact on the health of each tree. Once this has been determined remedial measures can be detailed to reduce the impact the proposals will have on the treescape.

3.4 Impact Table:-

Tree No.	Root Protection Area identified in Table 2 of BS 5837:2012	Distance to Proposed Hard Standing (m)	Distance to Proposed Development (m)	Can the Tree/s be Successfully Retained
T1	$10m^2$ = Circle with a radius of 1.80m	4.2	N/A	Yes
T2	$76m^2$ = Circle with a radius of 4.92m	3.4	N/A	Yes, See 3.5
T3	$16m^2$ = Circle with a radius of 2.28m	N/A	0.8	Yes, See 3.5
T4	Fell due to condition			
T5	$24m^2$ = Circle with a radius of 0.96m	N/A	1.0	Yes, See 3.5
G1	$28m^2$ = Circle with a radius of 3.00m	N/A	N/A	Yes
G2	$46m^2$ = Circle with a radius of 3.84m	N/A	0.5	Yes, See 3.5
G3	Fell due to development			
G4	$41m^2$ = Circle with a radius of 3.60m	N/A	1.5	Yes, See 3.5
G5	Fell due to condition			
G6	$28m^2$ = Circle with a radius of 3.00m	N/A	1.0	Yes, See 3.5

3.5 The fencing and resurfacing work can be implemented to ensure that the long-term health of trees highlighted to be retained in the table above are not impacted. Details are provided in the accompanying Arboricultural Method Statement.

4.0 Impact Assessment

4.1 To assess the implications of the Impact Table each tree can be categorised in the following way: -

	Trees to be retained		Trees to be removed	
	With No Impact	With detailed construction	Due to Condition	Due to Development
Tree No.	T1 & G1	T2, T3, T5, G2, G4 & G6	T4, & G5	G3

5.0 Conclusions and Arboricultural Recommendations

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

5.2 A precautionary method of working near trees is detailed in the accompanying Arboricultural Method Statement.

5.3 Following site development, regular (annual or biannual) inspections of all retained trees should be undertaken by a qualified Arboricultural Consultant.

5.4 It is considered that in following the advice in this document, any negative factors affecting trees on the site will be minimised.

Appendix One

Tree Survey Schedule

TREE SURVEY SCHEDULE

Arboricultural Data Sheet: The Willows, Wythenshaw					Date of Survey: 25/05/17						Surveyor: J. Barnes		
Tree No.	Species	DBH (mm)	Height (m)	Age	Crown Spread (m)				Crown clearance	Condition rating	Comments and preliminary management recommendations	Estimated remaining contribution	Tree quality category rating
					N	**E**	**S**	**W**					
T1	Willow	150	4	SM	2	2	2	2	0	2	An individual specimen situated in a grassed area, regularly trimmed with adjacent shrubs.	20-40	C1
T2	Swedish Whitebeam	410	8	EM	4	4	4	4	1.5	1	An individual specimen with goof form situated in a grassed area adjacent to a path. **Crown lift to 3m.**	40+	B1
T3	Sycamore	190 Est	8	SM	2	2	2	2	0	2	An individual specimen with reasonable form situated in a grassed area near to boundary. **Crown lift to 3m.**	40+	C1
T4	Staghorn Sumac	80	3	SM	2	2	2	2	1.5	2	An individual specimen with poor form in a grassed area close to boundary and impacting existing fence. **Fell.**	0-10	U
T5	Hawthorn (off site)	350 Est	8	M	4	4	4	4	2	2	An individual specimen with reasonable form situated in a grassed area. **Crown lift to 3m on school side.**	10-20	B1
G1	Cherry, Lilac & Sycamore	250 Avg	10 Avg	EM	-	-	-	-	1.5	2	A mixed species group with reasonable form situated in a grassed area. **Crown lift to 3m.**	40+	C1
G2	Ash x3	320 Avg	6 Avg	EM	-	-	-	-	1	2	A single species group with poor structural form situated in a grassed area. Included unions present in basal area. **Remove stems/branches impacting fence.** **Crown lift to 3m.**	20-40	C2

Arboricultural Data Sheet: The Willows, Wythenshaw					Date of Survey: 25/05/17					Surveyor: J. Barnes		
Tree No.	Species	DBH (mm)	Height (m)	Age	Crown Spread (m)				Crown clearance	Condition rating	Comments and preliminary management recommendations	Estimated remaining contribution	Tree quality category rating
					N	**E**	**S**	**W**					
G3	Damson	50 Avg	4 Avg	Y	-	-	-	-	0	2	A single species group situated along fence line.	20-40	C2
G4	Cherry x7	300 Avg	14 Avg	EM	-	-	-	-	0.5	2	A single species group with poor form situated in a grassed area. Included unions present. **Crown lift to 3m.**	20-40	C2
G5	Sycamore x2	250 Avg	5 Avg	EM	-	-	-	-	2.5	3	A single species group situated along the fence line. 1 tree has been topped at 2.5m. Both trees impacting fence. **Fell.**	0-10	U
G6	Hawthorn & Elderberry (off site)	250 Avg	6 Avg	M	-	-	-	-	0.5	2	A mixed species group with reasonable form situated in a grassed area. **Crown lift to 3m on school side.**	10-20	C1

Appendix Two

Tree Survey Key

Trees for removal			
Category and definition	Criteria		
Category U Those 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 management	Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other R category trees (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline Trees infected with pathogens of significance to the health and/or safety of other trees nearby (e.g. Dutch elm disease), or very low quality trees suppressing adjacent trees of better quality **Note** – Habitat reinstatement may be appropriate (e.g. R category tree used as a bat roost: installation of bat box in nearby tree).		
Trees to be considered for retention			
Category and definition	Criteria - Subcategories		
	1 Arboriculture values	2 Landscape values	3 Conservation values
Category A **Those of high quality and value**: in such a condition as to be able to make a substantial contribution (a minimum 40 years is suggested)	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboriculture features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands which 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 (e.g. avenues or other arboricultural features assessed as groups)	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood pasture)
Category B **Those of moderate quality and value**: those in such a condition as to make a significant contribution (a minimum of 20 years is suggested)	Trees that might be included in the high category, but are downgraded because of impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage)	Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal arboriculture features (e.g. trees of moderate quality within avenue that includes better, A category specimens), or trees situated mainly internally to the site, therefore individually having little impact on the wider locality	Trees with clearly identifiable conservation or other cultural benefits
Category C **Those of low quality and value**: currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150 mm	Trees not qualifying in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit	Trees with very limited conservation or other cultural benefits
	Note - Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150 mm should be considered for relocation		

Age Class

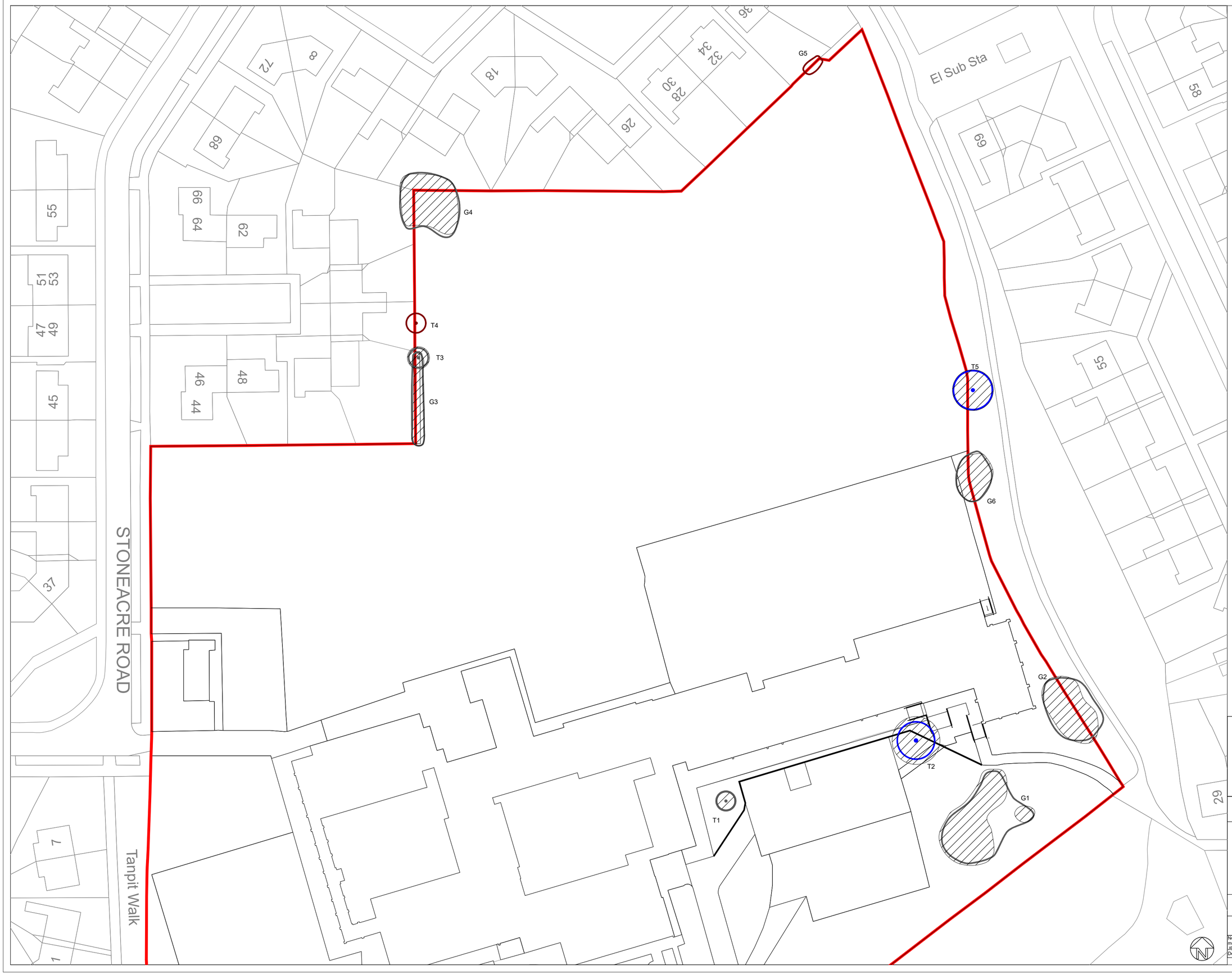
Y	Young	Trees that have not yet established
SM	Semi-Mature	Established trees up to 1/3 of expected height and crown
EM	Early mature	Between 1/3 and 2/3 expected height and crown
M	Mature	Between 2/3 and full expected height and crown
FM	Fully Mature	Full expected height and crown
OM	Over-Mature	Crown beginning to break up and decrease in size
S	Senescent	Crown in advanced stage of break-up

Condition

A	Good
B	Fair
C	Poor
D	Dead

Appendix Three

Plans



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Client:
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Site Address:
The Willows Primary School
Wythenshaw

Drawing Title:
Tree Constraints Plan

Drawing No:
17-011(1)

Date:
29/05/17

Scale:
1:500@A2

Drawn by:
JWB

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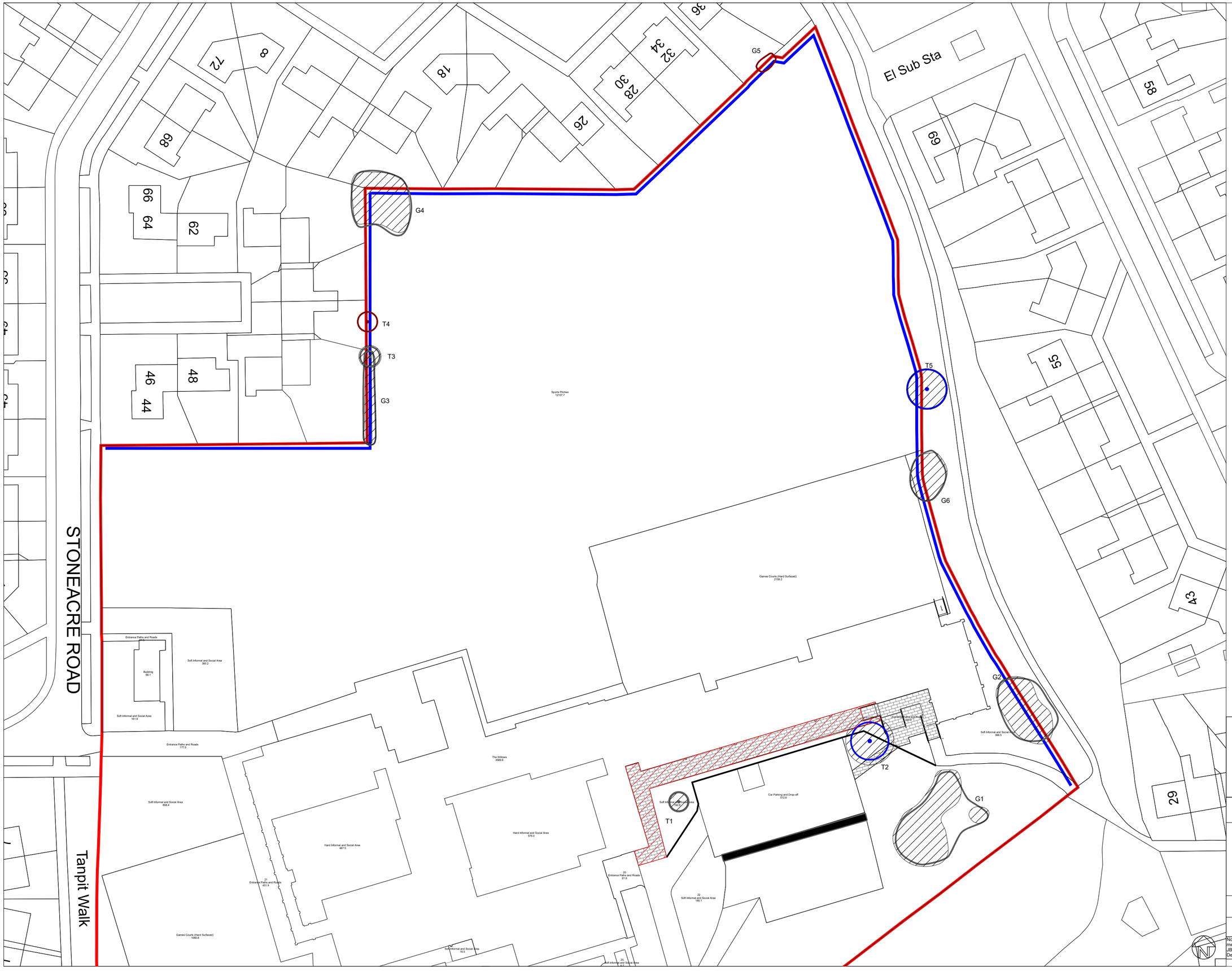

Category U tree

Category A tree

Category B tree

Category C tree

Root protection area

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Drawing Title:		Drawing No:
Arboricultural Impact Plan		17-011(2)
Date:	Scale:	Drawn by:
29/05/17	1:500@A2	JWB

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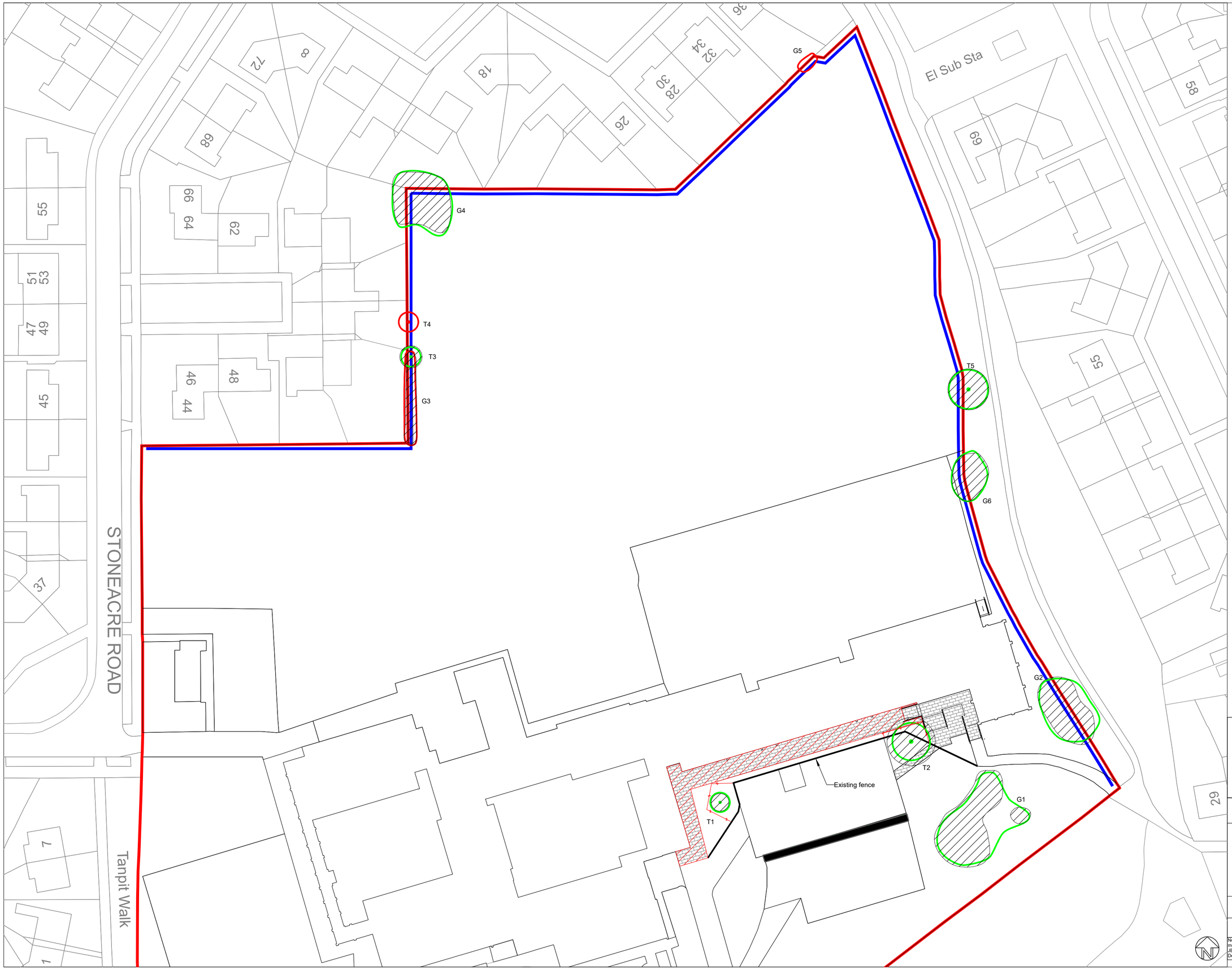

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Drawing Title:		Drawing No:
Tree Protection Plan		17-011(3)
Date:	Scale:	Drawn by:
29/05/17	1:500@A2	JWB

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