

BS 5837:2012

Tree Survey and Preliminary Assessment

Report No: LTM0072.PAA.02

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Executive Summary.

The proposed development site is located within the garden of 23 Crimsworth Avenue, Chorlton. The majority of the trees that could be potentially impacted by this development are located on third party land. With some trees of low arboricultural value located within the site itself.

5 category B trees have been identified on the railway bank and are of medium to high visibility from public viewpoints. It is highly unlikely that permission will be given for the removal of these trees.

1 x category C hedge has been identified on the rear boundary of the site and is third party owned.

2 x category C groups have been identified within the site and are of low to medium visibility from public viewpoints and can easily be replaced. These two groups should not be classified as a constraint for this development.

1.0 Introduction

- 1.1 Lally Tree Management were instructed by Simon James to carry out an arboricultural survey of the trees that could be potentially impacted by the development at 23 Crimsworth Ave. Chorlton.
- 1.2 This report details the arboricultural implications of developing the site, including:
 - a survey of the trees on and near any potential development which may impact the trees from ground level, noting their location, species, and all relevant parameters, i.e. stem diameter, height, crown spread, condition etc.
 - preparation of a tree schedule.
- 1.3 The survey was carried out on 25th August 2020 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 as objectively as possible, however the findings are the opinions of the surveyor. 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- 1xx - 23 Crimsworth rd - sk -
- 1.6 The supplied drawing did not include tree positions. Any dimensions regarding tree positions and protective fencing must be checked on site.
- 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 for individual tree, G for group of trees and H for Hedge) 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.

Appendix One. Tree Survey Data

Arboricultural Data Sheet: 23 Crimsworth Rd Date of Survey: 25.08.20 Surveyor: Matthew Lally														
Tree No.	Species	DBH (mm)	RPA (m ²) Per tree	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	Sycamore	380	65	14	EM	3	5	3	5	5N	A	A third-party tree. Limited inspection due to no access. Measurements have been estimated. Tree appears to be in good health no obvious defects. High Visibility from public viewpoints - No Action	40+	B1
T2	Sycamore	500	113	14	EM	3	0.5	4	5	2S	B	A multi-stemmed third-party tree. Co-dominant. Medium visibility from public viewpoints. Measurements have been estimated. Not inspected. Tree appears to be in good health with no obvious defects. - No Action	40+	B1
T3	Oak	300	41	10	SM	5	4	6	5	1N	A	A third-party tree of good form and vigour. Not inspected. Measurements estimated. Low visibility from public viewpoints. No significant defects observed, however, not fully inspected. - No Action	60+	B1
T4	Sycamore	500	113	14	EM	4	4	5	5	1S	B	A third-party tree of good form and vigour. Not fully inspected. Measurements estimated. Low visibility from public viewpoints. No significant defects observed. - No Action	40+	B1
T5	Oak	380	65	8	EM	1	4	4	4	1E	A	A third-party tree of good form and vigour. Not inspected. Measurements estimated. No significant defects observed. - No Action	60+	B1

Arboricultural Data Sheet:		23 Crimsworth Rd				Date of Survey: 25.08.20				Surveyor: Matthew Lally				
Tree No.	Species	DBH (mm)	RPA (m ²) Per tree	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					
H6	Cypress Hedge	300 per tree	41	13	EM	1	1	1	1	0N	B	A heavily pruned third party hedge. Limited inspection due to vegetation - No Action	40+	C2
G7	Birch & Willow	100 Per tree	5	6	SM	1.5	1.5	1.5	0.2	1N	B	An internal boundary group of self-set trees. Low arboricultural value. Low Visibility from public viewpoints. Easily replaced - No Action	40+	C1
G8	Japanese Maple & Elder	70 per tree	2	4	Y	1.5	1.5	1.5	1.5	0N	A	A group with good form and vigour. Ornamental garden trees. Low visibility from public viewpoints. Easily Replaced. - No Action	40+	C2

Appendix Two. Glossary of Terms

The following terms are concurrent with best Arboricultural practice and within the guidelines set by the International Society of Arboriculture (ISA), the Arboricultural Association (AA) and the British Standards Institute (BSI).

Age Range:

Age is site specific and categorised:

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

Height: Height is estimated and recorded in metres.

DBH: Diameter at Breast Height is measured at 1.5m and recorded in metres. Where a tree becomes multi-stemmed below 1.5m the highest possible diameter is measured and indicated. Alternatively, above 1.5m the diameter of each stem or an average diameter is measured and indicated.

Condition: Assessment of current physiological condition and structural morphology incorporating vigour and vitality and categorised:

- A -** Tree needing little, if any attention
- B -** Tree with minor, but rectifiable defects, or in the early stages of physiological stress
- C -** Tree with significant structural and physiological flaws and/or extremely stressed
- D -** Tree that is dead, biologically/physically moribund or dangerous

Desirability to Retain – As Outlined in Table 1 of BS 5837:2005 (Trees in Relation to Construction - Recommendations)

Definition of Physiological & Morphological Terms

Adaptive Growth - The process whereby wood formation is influenced both in quantity and in quality by the action of gravitational force and mechanical stresses on the cambial zone.

Bifurcation – Forked or divided union.

Brown Rot - Form of decay where cellulose is degraded, while lignin is only modified.

Cankers- A localised area of dead bark and cambium on a stem or branch, caused by fungal or bacterial organisms, characterised by wound wood development on the periphery. This may be annual or perennial.

Cavity - An open wound, characterised by the presence of extensive decay and resulting in a hollow.

Chlorotic Leaf - Lacking in chlorophyll, typically yellow in colour.

Compartmentalisation - The physiological process that creates the chemical and mechanical boundaries that act to limit the spread of disease and decay organisms.

Crack - Longitudinal spilt in stem or branch, involving bark and/or underlying wood. These may be vertically and horizontally orientated.

Decay - Process of degradation of woody tissues by fungi and bacteria through decomposition of cellulose and lignin.

Deadwood - Deadwood is often present within the crown or on the stems of trees. In some instances, it may be an indication of ill health, however, it may also indicate natural growth processes. If a target is present beneath the tree, deadwood may fall and cause injury or damage and should be removed, otherwise deadwood can remain intact for conservation purposes (insects, fungi, birds etc.).

End Weight -	The concentration of foliage at the distal ends of stems and deficient in secondary branches.
Girdling Root -	Root which circles and constricts the stem or roots causing death of phloem and/or cambial tissue.
Hazard Beam -	An upwardly curved branch in which strong internal stresses may occur without the compensatory formation of extra wood (longitudinal splitting may occur in some cases).
Included Bark Union -	Pattern of development at branch junctions where bark is turned inward rather than pushed out. Potential weakness due to a lack of a woody union.
Ivy Growth -	Ivy growth may ascend into the tree's crown, increasing wind resistance, concealing potential defects and reducing the tree's photosynthetic capacity. Ivy growth is often acceptable in woodland areas as a conservation benefit.
Live Crown Ratio -	The relative proportion of photosynthetic mass (leaf area) to overall tree height.
Reaction Wood -	Specialised secondary xylem, which develops in response to a lean or similar mechanical stress, attempting to restore the stem to the vertical.
Root Plate Lift -	The physical movement of the rooting plate causing soils to shift and crack. May occur during adverse weather conditions. Trees may become unstable.
Structural Defect -	Internal or external points of weakness, which reduce the stability of the tree.
Suppressed -	Trees which are dominated by surrounding vegetation and whose crown development is restricted from above.

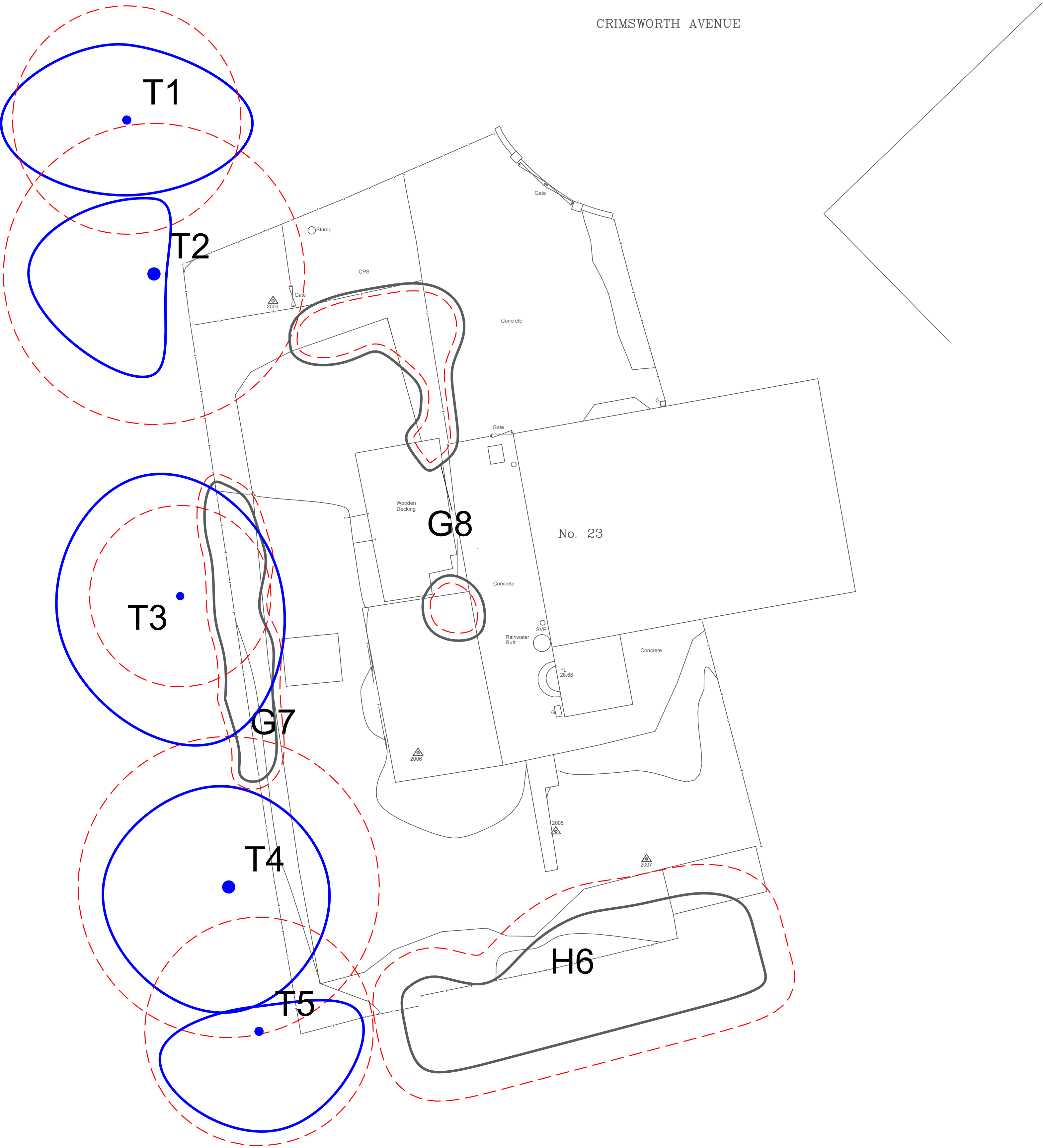
- Topping -** A highly disfiguring practise, likely to cause severe xylem dysfunction and decay in major structural parts of the wood.
- White Rot -** Form of decay where both cellulose and lignin are degraded.
- Wound -** Any injury, which induces a compartmentalisation response.
- Wound wood -** Wood with atypical anatomical features, formed in the vicinity of a wound and a term to describe the occluding tissues around a wound as opposed to the ambiguous term “callus.”
- Woodland Structure -** The vertical and horizontal arrangement of trees within a group or woodland i.e.
 Dominant - trees with a crown above the upper layer of the canopy, Co
 dominant - trees that define the general upper edge of the canopy, Intermediate
 - trees that have been largely overgrown by others, Suppressed - trees that have
 been overgrown and occupy an under storey position and grow slowly, often
 severely asymmetrical.

Note: *The definitions described above, may not necessarily be included within the Arboricultural Survey Data.*

Appendix Three. Cascade Chart

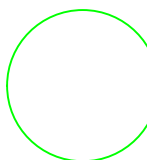
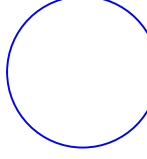
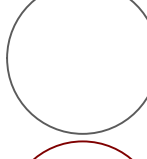
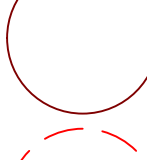
Trees for removal			
Category and definition	Criteria		
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	○ Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other U 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: <i>Category U trees can have existing or potential conservation value which might be desirable to preserve; see section 4.7.5</i>		
Trees to be considered for retention			
Category and definition	Criteria and sub-categories		
	1) Mainly arboricultural values	2) Mainly landscape values	3) Mainly cultural values (including conservation)
Category A Trees of high quality: with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and or landscape features	Trees, groups or woodlands of significant conservation, historical commemorative or other value (e.g. veteran trees or wood-pastures)
Category B Those of moderate quality: with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider area	Trees with clearly identifiable conservation or other cultural benefits
Category C Those of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in the 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 no material conservation or other cultural value

Appendix Four. Site Plans



Do not scale this drawing (printed or electronic version).
Contractors must check all dimensions from site.
This drawing is for use on this site only and should be used in conjunction with all relevant consultants drawings.

LEGEND

-  Category A
-  Category B
-  Category C
-  Category U
-  Root Protection Area (RPA)



Scale:	1:100 @ A1	Date:	08/09/2020
Job:	LTM0072. Crimsworth		
Address	23 Crimsworth Ave Chorlton. Manchester		
Client:	Mr John O'Hare		
Drawing Number:	LTM. 00072. TCP. 02		
Drawn by:	Matthew Lally		
TREE CONSTRAINTS PLAN			