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Arboricultural Implication Assessment
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Report reference: TCC-1054-2
08 February 2019

Report Title:	Arboricultural Implication Assessment
Report Reference:	TCC-1054-2
Written by:	Steve Waterson
Client:	Mr. L. Monfredi C/o Jenkins Veitch Nolan Appleby House Unit 19 Ravenshorn Way Renishaw Sheffield S21 3WY.
Date:	08/02/2019

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Introduction

1. Tree Care Consultancy was commissioned by Jenkins Veitch Nolan to prepare an Arboricultural Implication Assessment to accompany a planning application for a proposed residential development at the above address. The report produced includes the following information:

    - A tree survey, undertaken in accordance with British Standard 5837:2012 'Trees in relation to design, demolition and construction' - Recommendations

    - A Tree Constraints Plan and Proposed Site Plan which highlights the potential development limitations trees pose on site

    - An Arboricultural Implication Assessment which evaluates any potential impact the proposal may have on surrounding trees

2. This report is based on site observations and information provided. The client may choose to accept or disregard the recommendations made in this report, or seek additional advice.

3. This report is only concerned with trees in relation to construction. This report makes no attempt to provide a full safety inspection of the trees surveyed. It should not be seen as an alternative for a Tree Hazard Assessment which is specific to minimising the risk and liability associated with trees. Climatic conditions including storms, drought and temperature-related factors can cause damage and failure in apparently healthy trees. It should be remembered that all trees do pose a risk and whilst every effort has been made to detect any major defects in inspected trees, no guarantee can be given as to their safety. Although the risk should be managed to an acceptable level, no tree can be guaranteed as safe at all times.

4. This report is based on Visual Tree Assessment (VTA) methodology, as devised by Mattheck (1991). V.T.A is a ground level visual assessment of a tree, which is carried out to identify obvious mechanical defects, signs of ill health, potential mechanical failure and the suitability of a tree to a site. The survey is compiled in accordance with British Standard 5837:2012 'Trees in relation to design, demolition and construction' - Recommendations with all Root Protection Areas (RPA's) are based upon section 4.6 of the document.

Site visit

5. The survey was undertaken by Steve Waterson on 6 December 2017. No climbing inspections or decay detection analysis were undertaken.

6. The relevant information was recorded and the trees were graded using table 1 of BS5837. This information has been included within the tree schedule in Appendix 1. An explanation of the tree schedule format is also included within the Appendix.

7. This survey should be read in conjunction with the Tree Constraint Plan (TCP) and proposed site plan (located in appendix 4) which have been prepared by overlaying the tree survey data onto a topographical drawing. The author has relied on the accuracy of the drawing in the production of this report.

Site Description

8. Please refer to the Planning Statement prepared by Jenkins Veitch Nolan for site context.

Tree protection status

9. It is understood none of the sites tree cover is subject of a Tree Preservation Order (TPO). In the case of trees that are subject of TPO, Conservation Area controls or planning application procedures it is essential the Local Authority's advice is sought and where necessary consent obtained before undertaking any tree removal or pruning operations.

Soil assessment

10. No soil testing was undertaken and no soil information was provided for the author.

Tree Quality Assessment

11. As shown in table 1 below, the tree survey included 9No. trees. Of these 8No. trees were identified as low retention category C material and 1No. tree was identified as a seriously defective category U item.

Table 1:

Category	Category Description	Tree Numbers
A	Trees of high quality, with life expectancy in excess of 40 years	Nil
B	Trees of moderate quality, with life expectancy in excess of 20 years	Nil
C	Trees/hedgerow of low quality with life expectancy in excess of 10 years or young trees	T1, T2, T3, T5, T6, T7, T8, T9
U	Seriously defective trees that cannot be retained in present context for longer than 10 years	T4
Total number of trees:		9No. trees

12. Generally the Local Planning Authority is likely to accept the removal of trees in a poor condition or those with a minimal, safe, useful life expectancy. This usually includes category 'U' and 'C' trees. This presumption is also viewed reasonable where it accords with accepted arboricultural objectives.

Arboricultural Implications Assessment (AIA)

13. The following section assesses the relationship of the proposed layout and trees on and immediately adjoining the site. Any tree and design conflicts are highlighted and possible remedial action recommended. The assessment is based on the surveyor's findings and drawings provided by Neil Bowen Architects.

Trees to be removed to facilitate the proposal

14. As demonstrated in Table 2 the proposal requires the removal of 5No. low category 'C' trees and 1No. seriously defective category U tree. These trees are relatively poor quality trees, readily replaceable within the development context.

Table 2:

Tree categories A, B, C & U	Trees to be retained and protected	Trees to be removed for development purposes	Trees to be removed for arboricultural management reasons
'A'	Nil	Nil	Nil
'B'	Nil	Nil	Nil
'C'	T7, T8, T9	T1, T2, T3, T5, T6	Nil
'U'	Nil	T4	Nil

Below ground constraints

15. The area of roots that need to be protected around a tree to try to ensure it does not suffer damage during the construction process is called the Root Protection Area (RPA).

16. As recommended in BS5837 we have plotted the RPAs (in magenta) onto the attached Tree Constraints Plan (TCP) taking full account of the surrounding topographical factors, tree condition and the probable root disposition.

17. The proposed siting of unit 1 is theoretically positioned marginally within the RPA of the retained off site tree T9. In practical terms the actual root spread towards plot 1 is likely to have been constrained by the presence of a robustly constructed stone boundary wall. Furthermore the theoretical area of the RPA occupying plot 1 is presently overlaid by tarmacadum hard surface that will prove unattractive to root growth in comparison to the open ground to the north of the boundary wall. As such construction of unit 1 is not expected to impact on the viability of T9.

Above ground constraints

18. There do not appear to be any conflicts between the proposal and the above parts of retained trees. More particularly the off-site Sycamore trees T7, T8 and T9 bordering plot 1 can be expected to grow to their overall dimensions subject to routine crown lifting and cleaning operations.

Tree protection

With regard to Sycamore trees T7, T8, and T9; in the unlikely event that significant roots are present within the site then the existing tarmacadum surfacing will provide root protection. As such retaining the hard surfacing in situ until landscaping takes place will provide satisfactory protection to their below ground parts.

Material storage

19. No material storage or plant movement will be permitted within 15 metres of T7, T8 and T9.

Mitigation for associated tree loss

20. The proposed layout provides opportunities for replacement planting within the site. The cumulative effect of desirable planting will mitigate for the development related tree loss, whilst enhancing the future character of the area. I would presume this is a matter that the Local Planning Authority would be agreeable to conditioning as part of a detailed Planning Permission.

Conclusion

21. From the tree survey findings, comments and observations, it will be seen this development requires the loss of low grade trees only. Equally important the proposal provides an opportunity to carry out agreed additional landscaping that will serve to enhance visual amenity.

22. It is hoped that this report and recommendations provides all necessary information, however should there be any queries or should clarification of any points be required, please contact the report author.

Appendix 1- Explanation of Survey Details

Tree Id- Each tree/group has been given a unique number, which coincides with the drawings located in appendix 3.

Species & botanical name- where identifiable the full botanical name has been given. Where a cultivar, variety or species cannot be accurately given the genus name only will be given.

Height (m) - measured approximately to the nearest 1m. If height issues are critical, measurements can be collected accurately using optical instruments.

No of stems- the number of separate stems each individual tree has.

Stem Dia @1.5m (mm) - the diameter of the given tree at 1.5m above soil level, (on sloping ground taken on the up-slope side of the tree base). Where the tree is multi-stemmed measurements will be record for each stem.

Spread- indicates the crown radius from the base of tree in four compass directions, recorded to the nearest metre.

Crown height + direction (m) - recorded as the first significant branch and direction of growth.

Life stage- described as young, semi-mature, early-mature, mature or over-mature.

Physiological condition (P) - an assessment of the trees health. Considers vitality, die back and the presence of disease. Described as **Good** = no significant health problems **Fair** = symptoms of ill health that can be remediated **Poor** = significant ill health.

Structural condition (S) - an assessment of the trees structural condition. Described as **Good** = no significant defects **Fair** = significant defects that can be remediated **Poor** = significant defects no remedy.

Observations – negative and positive- narrative comments on general condition, significant defects and overall appearance (e.g. the presence of any decay).

Preliminary management recommendations- e.g. requires pruning or further investigation of suspected defects is needed.

Life expectancy- preliminary management recommendations, e.g. requires pruning or further investigation of suspected defects is needed.

Retention Category- Each tree/group is identified with a retention category in accordance with BS5837 (an in depth explanation is provided on the following page)

RPA radius (m) - minimum area in metres which should be left undisturbed around each retained tree.

Appendix 2- Cascade Chart for Tree Quality Assessment (extract from BS5837 table 1)

Category and definition	Criteria (including subcategories where appropriate)	Identification on Plan
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 category U trees (e.g. 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 health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve	DARK RED

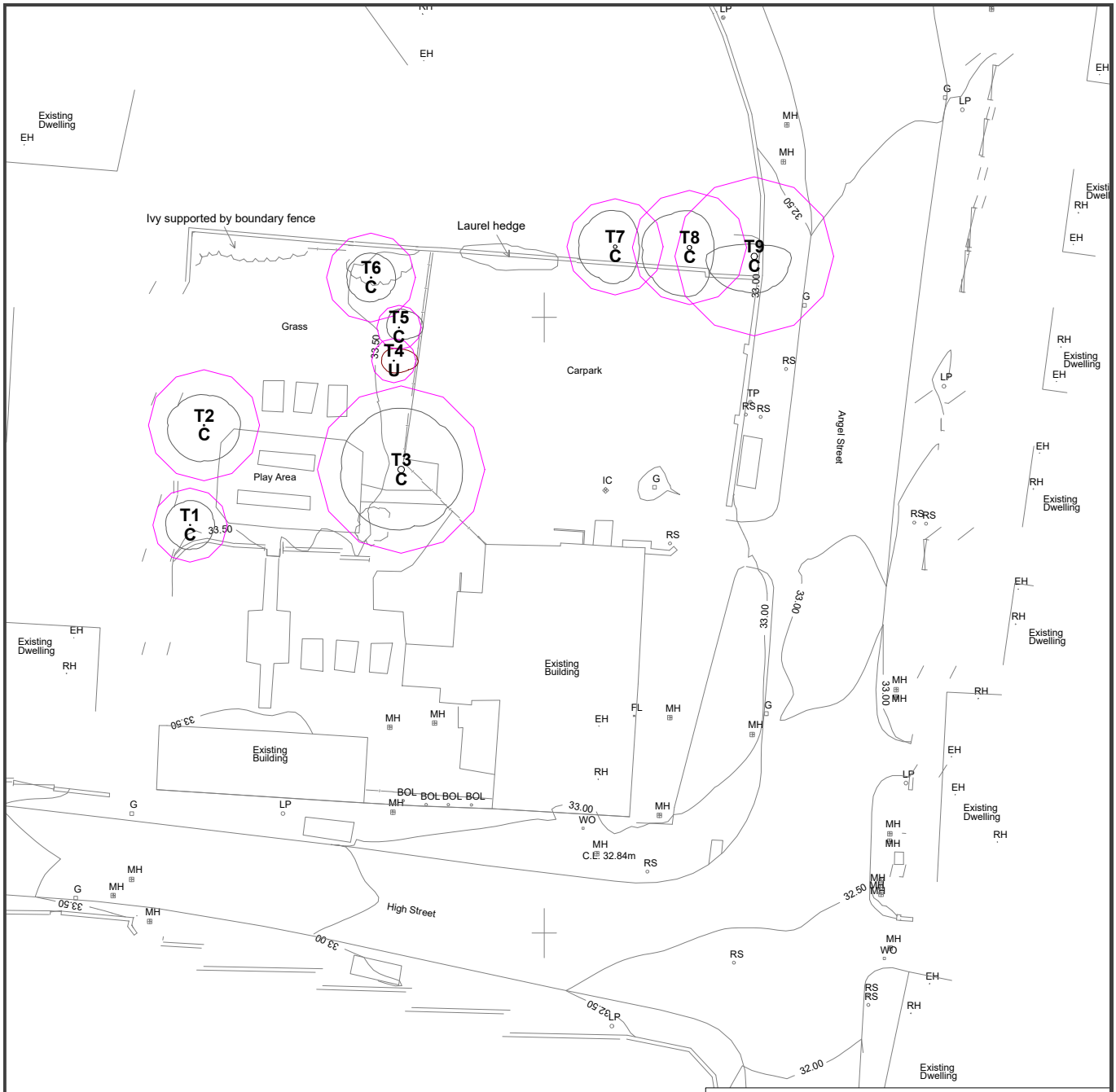
TREES TO BE CONSIDERED FOR RETENTION

Category and definition	Criteria – Subcategories			Identification on Plan
	1 Mainly arboricultural values	**2 Mainly landscape values**	**3 Mainly cultural values, including conservation**	
Category A **Trees of a 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-pasture)	LIGHT GREEN
Category B **Those of moderate quality** with and 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 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 locality	Trees with material conservation or other cultural value	MID BLUE
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 a very limited merit or such impaired condition that they do not qualify 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/transient screening benefits	Trees with no material conservation or other cultural values	GREY

Appendix 3- Tree survey schedule

Tree ID	Species, Botanical Name	Height (m)	No of stems	Stem Dia @ 1.5M (mm)	Spread - N,E,S,W				Crown height+ direction (m)	Life stage	Physiological (P) and Structural (S) condition. Observations- negative and positive	Recommendations	Life expectancy	Retention category	RPA Radius (m)
T1	Lawson Cypress, *Chamaecyparis lawsoniana*	9	6	100	2	2	2	2	GL	10 to 20 yrs	S=Fair, P= Good. Multi-stemmed from ground level. Characteristic tight inclusions throughout crown structure.	Development loss	10 to 20 yrs	C1	2.9
T2	Lawson Cypress, *Chamaecyparis lawsoniana*	9	6	150	3	3	3	3	GL	10 to 20 yrs	S=Fair, P= Good. Multi-stemmed from ground level. Characteristic tight inclusions throughout crown structure.	Development loss	10 to 20 yrs	C1	4.4
T3	Sycamore, *Acer pseudoplatanus*	11	5	320 260 260 210 160	5	5	5	5	2.5-s	10 to 20 yrs	S=Fair, P= Good. Multi-stemmed from ground level with tight inclusions. Potentially coppice regrowth. Damaging neighbouring hard surfaced path. 150 dia Crab Apple situated tight to base at west side, inconsequential.	Development loss	10 to 20 yrs	C1	6.7
T4	Crab Apple, *Malus sylvestris*	4	6	60	1	2	1	1	GL	<10 yrs	S= Poor, P= Fair. Significant basal wound possible historical fire damage.	Development loss	<10 yrs	U	1.8
T5	Crab Apple, *Malus sylvestris*	4	6	60	2	2	1	1	GL	10 to 20 yrs	S=Fair, P= Good. Inconsequential ornamental material with possible fire damage to west of crown.	Development loss	10 to 20 yrs	C1	1.8
T6	Lawson Cypress, *Chamaecyparis lawsoniana*	8	6	120	2	2	2	2	GL	10 to 20 yrs	S=Fair, P= Good. Multi-stemmed from ground level. Characteristic tight inclusions throughout crown structure.	Development loss	10 to 20 yrs	C1	3.5
T7	Sycamore, *Acer pseudoplatanus*	11	2	Est 280 150	3	2	3	3	1-w	10 to 20 yrs	S=Fair, P= Good. Off site multi-stemmed boundary tree. No accurate inspection could be completed. Ivy present along stem.	Retain, no work required	10 to 20 yrs	C2	3.8

T8	Sycamore, *Acer pseudoplatanus*	13	2	Est 320 200	3	2	4	4	2-e	10 to 20 yrs	S=Fair, P= Good. Off site multi-stemmed boundary tree. No accurate inspection could be completed. Ivy present throughout crown.	Retain, no work required	10 to 20 yrs	C2	4.5
T9	Sycamore, *Acer pseudoplatanus*	11	4	Est 280 280 280 200	1	3	3	2	1-s	<10 yrs	S=Fair, P= Good. Off site multi-stemmed boundary tree. No accurate inspection could be completed.	Retain, no work required	<10 yrs	C2	6.3



KEY

Crown Spread

Root Protection Area

Category 'A' | Category 'B' | Category 'C' | Category 'U'

0 — 30m

Tree Constraints Plan

The Angel Public House, Angel Street
Bolton Upon Dearne, Rotherham

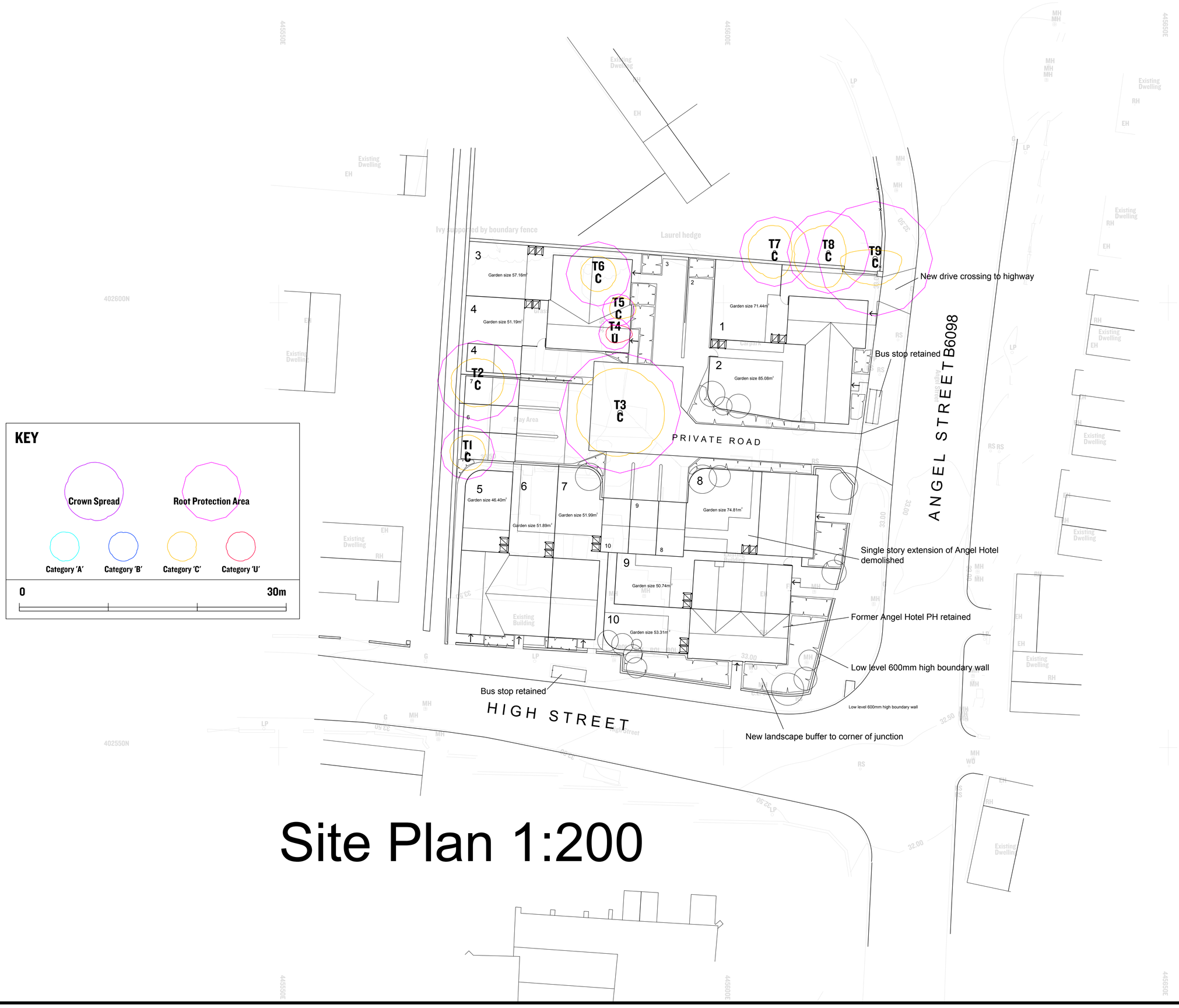
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Site Plan 1:200

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No.	Revision/Issue	Date

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Project Name
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FORMER ANGEL HOTEL, HIGH ST, BOLTON UPON DEARNE ROTHERHAM S63 8JJ

Drawing Title
Site Plan

Drawn By
BC

Checked By
.

Office Ref
18.032

Project Number
18.032

Date
21.01.2019

Scale
As Noted

Drawing Number
PL02

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