ANDERSON
TREE CARE

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Tree Survey:	**The Crown and Anchor, Barugh Lane, Barugh Green, Barnsley, S75 1LL.**
Client:	**True North Brew Co. via Tracy-Jane Neal, Melling Ridgeway.**
Date of Survey:	**February 13th 2025.**
Weather at time of Survey:	**Fine, rather dull.**
File reference:	Crown & Anchor 01

Appendices:
1. Tree location plan.
2.

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Checked by: R H Anderson. Dip Arb.(RFS)

Introduction.
This project is the proposed extension of a busy local pub. The proposal is the erection of a small extension to provide a function room at the rear of the existing property. This will reach into the existing beer garden where a number of trees are growing. Although no trees are directly impacted by this proposal, the project will involve work in close proximity to a couple.

The site adjoins farmland to the north, and housing to the east and west.

Tree Preservation Orders.
as far as I can tell from the Barsnley Council website, there are no Tree Preservation Orders on the site and it is not in a Conservation Area.

British Standard 5837 2012 Trees in relation to design demolition and construction – Recommendations.

I have taken the above document as the basis for this report. The Local Planning Authority will almost certainly consider this Standard in its deliberations about this site. The Standard states its objectives as achieving a harmonious and sustainable relationship between trees and structures.

The preoccupation of this standard is the categorisation method and the Root Protection Area (RPA). The logic for this is that resources should not be wasted attempting to retain trees that do not justify retention, nor should a project set out to retain a tree only to ensure its rapid demise by failing to take account of its growing conditions.

While the Standard covers much more than these matters, at this stage in this project these are the major concerns. This survey is intended to supply the information necessary to ascertain which trees are suitable for inclusion in the project and how their retention will affect the manner in which the site is developed. BS5837 anticipates that an Arboricultural Impact Assessment (AIA) will be undertaken once the layout is finalised and that the planning application will be accompanied by a Tree Protection Plan (TPP).

The TPP is a drawing that shows which trees are to be retained and where the protection measures are to be installed. This should be accompanied by a "Method Statement" detailing the measures to protect the trees. The AIA will contain details of tree work to be undertaken to facilitate the development and a summary of any tree planting.

BS5837; Tree Categorisation Method.
The categorisation method is summarised in BS5837 at section 4.5 where it emphasises the need for it to be undertaken by an Arboriculturist. Elsewhere the Standard tells us that an Arboriculturist should be a "person who has, through relevant education, training and experience, gained expertise in the field of trees in relation to construction."

There are 4 retention categories; U, A, B & C. The criteria for inclusion in each category and subcategory are summarised in Table 1 "Cascade chart for tree quality assessment," an interpretation of which follows:

Trees unsuitable for retention.			
Category and definition			
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. 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, 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.*		
Trees to be considered for retention.			
Category and definition	Subcategories		
	1. Mainly arboricultural qualities	**2. Mainly landscape qualities**	**3. Mainly cultural qualities**
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 those that are essential components of groups or formal or semi-formal Arboricultural features (e.g. the dominant 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).
Category B Trees 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 category A.	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 locality.	Trees with material conservation or other cultural value.
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm.	Unremarkable trees of 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 collective landscape value; and/or trees offering low or only temporary/transient landscape benefits.	Trees with no material conservation or other cultural value.

NB. This is an interpretation of table 1, not a copy, although much of the text is verbatim.

BS5837 contains details about what colours should be used to indicate their categories on any drawings; these are U = dark red, A = light green, B = mid blue, and C = grey.

BS5837 goes into greater detail (at 4.5.10) about the appraisal of small trees; those of less than 150mm diameter, as these are easily replaced with similar sized new trees. It notes that they might even be transplanted.

It includes further detail (at 4.5.11) about the importance of veteran trees and the measures that are likely to be needed to avoid damaging them and to ensure they are not an imposition upon a development.

BS 5837; Root Protection Area.

The Root Protection Area (RPA) is defined as a circular area of radius 12 times the trunk (stem) diameter (TD). BS5837 contains details as to where and how it should be measured, and also as to how to treat trees with more than one stem; an equivalent diameter is calculated. I use a diameter tape to measure this and use common sense to adjust this measurement where Ivy or other factors affect the measurement. Despite the Standard's attempts to standardise the measurement conventions there will be times when there is little choice but to estimate the measurement.

While the RPA is defined as a circle the Standard accepts the impracticality of erecting circular fences and it implies that other shapes are acceptable as long as the impact of the alteration is properly appraised. As a general rule, the 12 times the TD sum can be interpreted as a "tree to building distance" that is easy to calculate. It would usually be acceptable to plot the RPA on any drawing as a square with sides of twice the tree to building distance, notwithstanding the fact that this would have a greater area than the circular area.

The two previous versions of BS 5837 have contained advice about offsetting the RPA. The 2012 version does not but allows (at 4.6.2) deviation based upon "a soundly based Arboricultural assessment of likely root distribution."

The 12 times the TD rule is often seen as a mathematical method of calculating where a tree might have grown roots, plainly it is not. It might be helpful to consider it as a system of calculating the size of pot that might be needed were it possible to transplant a mature tree into a pot. The calculation is actually for a volume of soil, although as the pot is predetermined to be 600mm deep (most tree root action is in the upper 600mm of a soil profile), it is only necessary to calculate an area.

Clearly if a tree has grown on very shallow soils it might be necessary to have a larger RPA. I anticipate that a tree grown in such conditions would be of relatively poor quality, although making firm predictions about such things should be avoided.

At Annex D, BS5837 contains a table of RPA areas for single stem diameters, and at Annex C the measuring conventions are illustrated. Annex D rounds the TD to multiples of 25mm and the RPA to the nearest whole square metre.

While damage to tree roots is paramount, other factors need to be taken into consideration; factors such as shade from nearby trees, future growth and even access for machinery in order to undertake future tree management. These factors may affect the categorisation.

The Survey Schedule.

While BS5837 suggests numerous factors that should be recorded on the schedule the information presented in this survey is as follows:

1. **Tree no & species.** I hope this is self-explanatory. I routinely use common names but will use scientific names to clarify the identification where necessary. Some trees are dealt with as groups. Hedges are dealt with similarly.
2. **Height.** (Ht) measured in metres. This is estimated from ground level. I use a clinometer and laser range finder to assist. While these are reasonably accurate, actually seeing the top of a tree from ground level can be difficult so the height should always be regarded as an estimate.
3. **Trunk Diameter.** (TD) measured in millimetres using a tape. This is rounded up to the nearest 10, greater accuracy is unnecessary. Where I have been forced to estimate the measurement due to basal growths or some-such, the figure is appended with an "E."
4. **Age class.** BS 5837 uses the term "life stage." I consider this to mean the same as age class. The categories are Young (Y), Middle-aged (EM for early-mature), Mature (M), Over-mature (OM) and Veteran (V). BS5837 uses the class "semi-mature" but this appears too similar to early-mature for me to make a meaningful distinction. A veteran tree is one that has probably exceeded its 'normal' life span and has developed attributes such as wildlife habitat, biodiversity benefits, historic association or such-like. To quote from the Standard: It is a tree that *by recognised criteria, shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned.* (NB. Many thoughtful Arborists are avoiding the term "over-mature." Late mature is a better term.)
5. **Category.** The retention category as detailed above.
6. **Comments**. This column is simply to impart additional information and may cover reasons for the trees' categorisation or anything else that I feel is worthy of mention. Peculiar crown formation might be mentioned, or an unusual branch configuration. BS5837 recommends we measure the *"radius of branch spread at the four cardinal points."* This section will contain that information if I feel it necessary to measure unusual crown formation. Otherwise the presumption is that the trees are fairly typical for the species. The Standard also suggests that we record the height of crown-clearance; that is how far from the ground the branches grow. I shall not mention this unless it is unusual or particularly relevant. I shall broadly confine my assessment of the trees physiological condition to poor, fair, good, or dead and mention it here. All trees are assumed to be in good condition unless mentioned otherwise. The Standard asks us to include the *"estimated remaining contribution in years."* This is rather a "how long is a piece of string" question. I shall include a rough assessment of remaining life where I deem it necessary. By and large this will have been included as part of the 'category' assessment. If necessary I shall comment here.
7. **Root Protection Area.** As detailed above. Taken from Annex D. (NB. The RPA is 'capped' at 707m^2, i.e. a circle with 15m radius or a square with 26m sides.)

BS5837 contains a suggestion of information that might be gathered for a tree survey. This includes information such as the height of a tree's first branch, and the crown spread to the

four cardinal points. I note that the Government's guidance on Tree Preservation Orders contains the very useful advice that local planning authorities should not ask for any more information than is necessary to decide an application (to work on a protected tree). This is a sensible approach and one that I apply to all matters related to planning and trees. I note that the recently revised National Planning Policy Framework (NPPF) contains similar advice (at paragraph 44).

If something is particularly notable about a tree, say the crown spread is particularly broad or lop-sided, I shall mention it and expand upon the characteristic and its relevance in the discussion section of the report.

The previous version of BS5837 contained the instructions for preparing a "Tree Constraints Plan." While this was a sensible idea it was probably over complicated. It was intended to be a tool to inform the designer of a site layout more than an essential component of a planning application. It was meant to show the various retention categories of each tree or group, the tree positions and the heights and accurate spreads of each tree. It was also supposed to show the areas likely to be affected by shade. Shade would clearly differ from June to December and on slopes of different orientations, so this would be a complicated drawing. In fact I think it would be likely to be so convoluted as to be unusable.

Experienced designers are fully capable of working with different levels, neighbouring buildings, slopes of differing orientation, and interpreting where shade might be a problem, so the tree constraints plan could be seen as unnecessary. It is our intention that the tree schedule should provide sufficient information for a suitably experienced and skilled designer to prepare some sort of Tree Constraints Plan should he or she consider it necessary.

"An iterative process."

BS5837's Figure 1 is a flow chart illustrating the processes in developing a site. It emphasises that a development project should be an "iterative" process, meaning that advice from the Arboriculturist should be ongoing. This might mean that a sketch of a proposal should be discussed with the Arboriculturist, and the impact on trees appraised before preparing more detailed plans.

On large spacious sites it might be feasible to simply position structures and services outside of the RPAs, but on more typical sites it might be necessary to sacrifice a poor quality tree in order to give a better quality tree more space.

If these matters are addressed before a planning application is submitted it ought to speed up the decision-making process for the local planning authority. Figure 1 anticipates that the planning application will be accompanied by a Tree Protection Plan, which shows the positions of RPA protection fencing, and an Impact Assessment. This should be a summary of tree work that the project will require. This will include trees that are to be removed as well as those that might need pruning. It will also include an appraisal of the benefits of any tree planting and the likelihood of improved tree management upon the project's completion. By definition the impact assessment will take into account the surrounding area's tree population and the condition and management (or lack of) currently in operation.

The Trees.

A tree location plan is appended to the rear of this report.

Tree No.	Species.	Ht	TD	Age class	Cate-gory	Comments.	RPA
1.	Whitebeam	9	450	M	C1	Crown reaches 4 metres in all directions. Some old pruning wounds have decay that's insignificant at this time. Only 4 metres from the building. An untidy specimen. Will be only a couple of metres from the extension.	92
2.	Cherry	8	470	M	C1	In the centre of the lawn, another untidy specimen. Surface roots, and wires affixed to the tree. Probably an ornamental cultivar.	102
3.	Cherry	7	300E	M	C1	On the western boundary. Crown very one-sided, due to proximity of tree 4. A climbing rose festoons the tree. The rose may be dead but we won't be able to properly tell until spring. (There is a cut right through a large rose stem!)	41
4.	Cherry.	11	580	M	C1	Also on the west boundary. large surface roots.	163
5.	Holly	4	150E	Y	C1	Little more than a sapling.	10
6.	Shrub group	3	150E		C2	Cherry Laurel, Lilac and a variegated Holly. In the "yard," not closely inspected. Nondescript, but the variegated Holly is attractive.	10
7.	Group	8 max	300 max	M	C2	Off-site, outside the boundary wall at the north. Cherry, Hawthorn, Beech, Silver Birch and Alder. Rather nondescript, trees, could have been a hedgerow once. Garden waste is dumped at the base of some trees.	41
8.	Group	14 max	800 max	M	C2	A couple of Sycamore and an Alder tree in an area that seems to be the pub's stackyard/storage area for unused "stuff." One Sycamore, with three stems (possibly coppice growth) has some damage at the base, which may be the onset of "sooty bark disease." This tree needs to be inspected when in leaf.	290

Tree No.	Species.	Ht	TD	Age class	Cate-gory	Comments.	RPA
9.	Group	14 max	500E max	M	C2	Sycamore and Cherry, growing in the narrow border of the car park along the eastern boundary. Fairly typical trees for this sort of position. Some shrubby Tree Cotoneaster and privet growing at the bases of these trees. It's impossible to tell whether these have grown at the edge of the car park since it was constructed, or whether the car park was more recently installed. If the latter then it is likely that roots were damaged. The trees should be inspected when in leaf and the potential for problems related to root damage considered. Some branches reach a long way over the car park and potentially should be pruned.	113
10.	Group	10 max	500E max	M	C2	These trees are at the edge of the grassed area between the front car park and the neighbouring house to the west. It's not entirely obvious to whom they belong. The trees are Ash and Elm and I'm only mentioning them because the Elms are all dead and while they're not particularly large, there is potential for them to fall onto the road. The owner should remove the Elms. The trees are nowhere near the proposed extension.	113

Discussion.

Only two trees are likely to be affected by this proposal; trees 1 & 2.

Photograph 1.

Photograph 1 shows tree 1 the Whitebeam. It was a dull day and the picture is rather dark, but it's clear that if the extension is erected the new building will be only a couple of metres from the trunk of the tree. This is well within the BS5837-suggested RPA, which would be 6 metres radius.

Photograph 2 is a view of tree 1's trunk showing some old pruning wounds and superficial decay that's resulted from the pruning.

Photograph 2.

All things considered I think it would be wisest to remove this tree and plant a new one when construction work is complete. The tree is not a particularly good specimen and as it's rather hidden from view by the existing building, not many passers-by are likely to notice it missing. It certainly isn't the sort of tree that should stand in the way of development proposal. In terms of the Government's Guidance on Tree Preservation Orders (TPO) it has low amenity value, so its management is entirely up to the owners. I also note here that

there are very few recently planted trees in the neighbourhood, so planting some new ones as part of this proposal would be a benefit to the neighbourhood.

Photograph 3.

Photograph 3 shows tree 2 a Cherry. I estimate (from the proposal drawing) that this tree will be 7 metres from the rear of the proposed building, although there will be a patio somewhat closer. Assuming the patio does not require any substantial soil level changes within this tree's RPA (6 metres radius) then I think it's unlikely to be affected adversely by the proposal.

Whatever the situation, this is another tree with low amenity value. It's not a major feature in the local landscape.

Photograph 4 shows the base of tree 2; it's got floodlights and their cables nailed to the roots and to the trunk. This is bad practice, even though I don't think it's doing too much harm at the moment.

Photograph 4.

Photograph 5.

Photograph 5 is a view of trees 3 & 4 on the north west boundary. this is taken looking roughly west. These trees are well away from the proposal.

Photograph 6 shows the cut stem of the climbing Rose that festoons tree 3. The reason I'm not sure whether the Rose is dead is because there may be more than one stem.

Photograph 6.

I'm not sure why the Rose stem has been cut; it's possible that somebody was anticipating climbing the tree to prune it and therefore decided it would be wise to kill the rose. Unfortunately climbers like this take some years to rot away and fall from the tree, and the thorns are no less sharp in the meantime! (Some people plant such roses along fences to deter intruders. I don't know if that's why this was planted here. Horticulture students used to be taught that such plants were a sort-of natural barbed wire.)

Photograph 7.

Photograph 7 is a view of the Holly tree 5. It's little more than a sapling really

Photograph 8 is a view of the shrubs in the yard area to the rear of the pub. Cherry Laurel is considered something of an invasive pest nowadays; it's displacing native species from woodlands. Much like Rhododendron.

Photograph 8.

I realise that worrying about invasive species is not a topic that needs to be covered in a report like this, but as it seems we can barely go a day without a press report about the UK being "nature depleted," then reminding readers of the role invasive species play in nature depletion seems reasonable.

Photograph 9.

Photograph 9 is a view looking north west from the garden. All the trees in this photo, group 8 in the schedule, are outside the site.

Photograph 9.

Photograph 9 shows the eastern end of group 8, also outside the site.

Photograph 10 is a view of the situation at the base of the trees in photo 9. It seems that whoever rakes up the leaves from the pub garden simply tips them over the wall. While this is not highly damaging it does lead to other people tipping other things, as can be seen in this photo. It seems livestock is excluded from the base of the trees, but I think this is a practice that should be discontinued.

Photograph 10

Photograph 11.

Photograph 11 shows group 8 looking roughly west from the garden. This area is used to store “stuff” that is bound-to-come-in-handy, and also as a staging post for other stuff waiting to be removed. (Note the inevitable old Christmas tree!)

Photograph 12 is another view of group 8 taken looking north from the car park. The stuff is relatively benign, but there is potential for damage to be done to trees. The Alder in this group appears to have been scorched by a fire.

Photograph 12.

Photograph 13.

Photograph 13 shows the base of the Sycamore tree at the right of photo 12. This damage may have been caused by a fire, although there may be some disease involved. This tree needs to be inspected in the summer when in leaf.

Photograph 14 is a view of the trees at the side of the car park, group 9. These are unlikely to be a consideration in the proposal, but steps should be taken to ensure they are not damaged by the site works.

Photograph 14.

Some trees in group 9 have long lower branches over the car park, so pruning them to ensure site deliveries do not strike them would be prudent.

Photograph 15 shows the group of trees at the front of the Crown & Anchor. The tree at the left is the Ash and alive, the trees at the right are Elms and dead. the Elms really need to be removed. This is nothing to do with the proposal.

Photograph 15.

I'm not entirely sure that these trees belong to the pub but they really need to be sorted out sooner rather than later.

This concludes my tree related observations at this site.

Conclusions.

1. I see no reason for trees to stand in the way of this proposal.
2. I recommend tree 1 is removed and a new tree planted when construction work is finished.

3. All trees should be protected from accidental damage during site works. This might also mean that the car park adjacent trees will need some minor pruning to ensure they're not hit by delivery vehicles.
4. My comments about dead Elms are not a consideration in the planning application, but I could not omit the advice, despite the remote chances of any injury from the trees.

W. L. Anderson. Dip.Arb. (RFS) M.Arbor.A.
ANDERSON TREE CARE LIMITED. February 2025.

THE CROWN & ANCHOR
TREE LOCATION PLAN
NOT-TO-SCALE
FEBRUARY 2025