Application Number & Location:22-0821 FFU Church Hall.docx
Proposal: Internal and external alterations to the Garrison Church of St Barbara to include part demolition of north east elevation and erection of a single storey side extension to provide a church hall

Date: 13/12/22

Terminology:
Tree preservation order (TPO), root protection radius (RPR), root protection area (RPA), tree protection fencing (TPF), ground protection (GP), construction exclusion zone (CEZ), arboricultural impact assessment (AIA), tree constraints plan (TCP), arboricultural method statement (AMS), tree protection plan (TPP). National Joint Utilities Group (NJUG). British Standard 5837:2012 Trees in relation to design, demolition and construction – Recommendations (BS5837:2012). Cellular Confinement System (CCS).

Church Hall Development – 22/0821/FFU

- The report states that the trees are of B category in planning terms but has not highlighted any significant defects that warrants a downgrading from A – B, its appreciated that there is very little difference but the standard makes that differentiation and I see no reason to differ from the process. Things like broken branches and dead branches would not warrant a down grade. Trees of A class category (and B) deserve the most protection as very good examples of the species. I see no reason why these trees are any different, they are impressive tree which provide a significant level of amenity and in total keeping with the character of the area. I consider the trees to be of A Class unless further evidence provided to show they warrant the downgrading.
- Table 1 of BS5837:2012 '*Cascade chart for tree quality assessment*' states that category B specimens are "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)"…"or trees lacking the special quality necessary to merit the category A designation."
- T124, T125, T126, T127 and T129 were considered to be category B specimens due to their "significant, though remediable defects", including broken branches and branch stubs which were likely as a result of storm damage. If these remediable defects had been addressed at the time of survey, a category A classification would possibly have been appropriate.
- At the time of survey, none of the trees exhibited the 'special quality' required to warrant category A.
- In any case, regardless of the classification, a detailed design process has been conducted (and is ongoing) which seeks to protect all proposed retained trees with the same regard no matter what BS5837 category.

Please see 4.5.6 of 5837. broken branches is considered a minor imperfection and not a defect, these trees clearly fall under A2 unless other evidence provided to show the downgrading, it is agreed that B class trees are treated the same as A class trees however, the Standard makes the distinction and provides a process and I see no reason to deviate from it.

- 4.6.2 of (5837) The RPA for each tree should initially be plotted as a circle centred on the base of the stem. Where pre-existing site conditions or other factors that rooting has occurred asymmetrically, a polygon of equivalent be produced. Modifications to the shape of the RPA should reflect based arboricultural assessment of likely root distribution.
  • The pines are growing in a relatively constricted environment with an established car park to the west and new footpath north which when installed is

likely to have severed a significant proportion of the roots of T125, 127 and 129. The current root distribution is not in line with the current site constraints.

- Within a short distance of the stem, the roots of trees are highly branched, so as to form a network of small diameter woody roots, which can extend radially for a distance much greater than the height of the tree, except where impeded by unfavourable conditions. All parts of this system bear a mass of fine, non-woody absorptive roots, typically concentrated within the uppermost 600mm of the soil. The root system tends to develop sufficient volume and area to provide physical stability. The uptake of water and mineral nutrient by the root system takes place via the fine non-woody roots and associated beneficial fungi. Their survival and functioning, which are essential for the health of the tree as a whole, depend on the maintenance of favourable soil conditions. All parts of the root system, but especially the fine roots, are vulnerable to damage. BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations' gives information on determining a root protection area (RPA). This is the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority. the RPA is only the minimum deemed necessary for survival, so any development within it risks the long term viability of these trees.

- 5.3.1 BS 5837. States that the default position should be that any new structures (including surfacing) should be located outside the minimum root protection area of trees to be retained. Due allowance and space should also be given for the future growth and maintenance of existing trees. If structures (including hard surfacing) are proposed within the root protection area of retained trees it will require an overriding justification. (5.3.1 of BS5837). The project arboriculturist will also need to demonstrate that the trees can remain viable, the area lost to encroachment can be compensated for elsewhere contiguous with the root protection area (RPA) and mitigation measures to improve the soil environment of the tree can be implemented.

- Considering the location of trees and the proposed site layout it will not be possible to provide compensation elsewhere contiguous within the RPA's and provide mitigation measures to improve the soil environment for these trees. The project arboriculturalist hasn't demonstrated the trees can remain viable or that there is overriding justification for the development within the minimum RPA.

- The proposal would remove a significant proportion of the trees RPA, the nature of a pines rooting is at the surface within the first 600mm, any excavation at the surface is likely to encounter significant surface rooting, no evidence has been provided to show this is not the case. The proposed foundation will be greater than shown as it will extend at least 50cm outside the pad to allow for working space on the installation of the foundation pads, at this distance significant rooting will be taking place greater than 25mm and in dense bunches of roots, which will most likely be severed to allow the installation of the foundation contrary to BS5837. The long term viability of T126 cannot be guaranteed and will most likely be lost post development. The building once constructed will create a permanent rain shadow and effectively cap the soil underneath denying the rooting space below from water and oxygen diffusion. No cross sectional diagrams of the foundation design in profile has been provided as part of the application.

- In response to the above points we are in the process of looking to establish trial trenches along the proposed build line to physically assess the presence of roots. This seems a more pragmatic approach at this stage and will allow us to fully understand the actual root spread, where the building is proposed, rather than estimating, based on the BS5837 guidance.

- Trial Trenches will be excavated using a vacuum excavator and air spade along the proposed edge of the building/foundation edge to a depth of 600mm to

ascertain the presence of any significant (>25mm diameter or a mass of fine roots) rooting material present within the trench signifying the presence of roots within the footprint of the proposed building.

- Points taken with respect retention of rooting area outside of the development area. We will take a view on this once we have the findings of the trial trenches. Where necessary we will provide recommended amelioration with respect rooting areas of retained trees in the revised AMS.

- Post development, the relationship between the built form and the tree will be unsustainable, the proximity of the tree to the building will create pressure to fell or prune the tree from current and potentially future occupiers. Such pressures are likely to occur because of the proximity of the trees and as a result of real householder concerns relating to restriction of light, dominance, and perceived danger from falling limbs. This is notwithstanding any other potential issues which may arise in terms of falling debris or branches, blocked gutters, shading, or simply in relation to their overbearing presence. Pines will often shed needles and cones which can cause damage to structures in close proximity. As these trees are not yet fully mature, they have as yet not reached their full height and spread, in maturity they will come to dominate the structure or significant remedial pruning will be required disfiguring the trees to fit them in the landscape.

- A routine management of the clearance of debris from gutters will be part of the day-to-day running of the hall, something which is routine in most buildings. The canopies of these trees would help to create a woodland setting within the hall, something which we believe would be an appeal of the hall rather than a constraint.

- It should also be noted that significant branch removal or pruning to at least 7m in height will be required to create the construction access and clearance below as well as the working space for scaffolding etc, this will leave large wounds on a tree already stressed by development activity. This has not ben considered within the document. Overall the development is likely to lead to further tree losses over time as the effects of the development are felt, further eroding the amenity and character of the area.
- The crown lifting of T126 to seven metres would only involve the removal of secondary branch material and would not involve the removal of branches back to the main stem, thus reducing the diameter of the pruning cuts to significantly less than 100mm, as shown on the image within Appendix C1.
- The main construction access to the proposed hall would be to the north of the existing church and the outer extent of the RPA of T126. This area will be protected with ground protection boards, as detailed within Appendix C3.

- Given the above, the scheme fails to adequately secure the protection of important protected trees which contribute positively to the character and appearance of the area. I therefore recommend refusal of the application under policies DM9.

- Significant arboricultural input has been put into the design ensure it limits the impact to retained trees on site. This has been achieved by a cantilevered foundation to the west of the building, closest to the RPA of T126, to ensure that the foundations do not sever the rooting area which extends under the proposed building.
- Trial trenches will be excavated using a vacuum excavator and air spade to ascertain the presence of significant roots which extend under the proposed footprint of the building. This will help to determine the presence/quantity of roots which extend under the proposed building and help to provide an ongoing impact assessment of the potential impacts of the building design upon retained trees.
- In addition, a no dig footpath will run around the outside of the building to provide an essential footpath whilst also keeping open as much of the rooting area for the trees within close proximity to the building.
- Arboricultural supervision for all excavation within the RPA of retained trees will

take place to ensure that any roots which are encountered are appropriately dealt with.

The default position is that all development should remain outside the minimum RPA for the tree to remain viable as per 5.3.1 of 5837 and the arboriculturalist has not provided any evidence to suggest that the trees can or will remain viable.

The proposal has not provided any indicative designs for the utilities required to service the building, it is assumed that these will also breach RPA's

I also drawn your attention to the below points, the current proposal goes beyond the 20% within the standard although only a minor increase at 22% it still is not consistent with best practice, it also relates to minor structures such as shed or footways, it does not account for full development.

7.5.3 Where a slab for a minor structure (e.g. shed base) is to be formed within the RPA, it should bear on existing ground level, and should not exceed an area greater than 20% of the existing unsurfaced ground.

7.4.2.3 New permanent hard surfacing should not exceed 20% of any existing unsurfaced ground within the RPA.

Although the applicants have no concern over post development pressure, post development pressure from trees is a very real concern for occupiers and residents. The Council receives a significant number of tree work applications a year to fell or detrimentally prune trees that the occupiers consider are 'too close' or 'too tall' to the dwelling or that drop a significant amount of leaves and debris. There will be a significant level of post development pressure which can lead to detrimental wounding or removal of trees for relatively minor issues such as leaf fall, these concerns can be very real concerns for occupiers, the trees retention or refusal of such requests cannot be guaranteed even if protected by TPO. There would also be considerable shadowing from the proximity of the tree to the new building further raising concerns.

Nothing above has provided the overriding justification for deviating outside of the British standard or that there will not be foreseeable harm to trees which provide a significant level of amenity and in keeping with the character of the area, the ability to build something is drastically different from the appropriateness of doing it and these trees provide a significant level of amenity to the general area and so therefore, I maintain my objection to the development under DM9.

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