## **Public Document Pack**



# GROWTH, ENVIRONMENT AND RESOURCES SCRUTINY COMMITTEE

## TUESDAY 15 FEBRUARY 2022 7.00 PM

Engine Shed, Sand Martin House and livestreamed via Peterborough City Council's YouTube Page

#### **AGENDA**

Page No

## 1. Apologies for Absence

#### 2. Declarations of Interest and Whipping Declarations

At this point Members must declare whether they have a disclosable pecuniary interest, or other interest, in any of the items on the agenda, unless it is already entered in the register of members' interests or is a "pending notification " that has been disclosed to the Solicitor to the Council. Members must also declare if they are subject to their party group whip in relation to any items under consideration.

## 3. Exclusion of the Press and Public

To determine whether the press and public should be excluded from the meeting for discussion of Appendix A of Item 4, 'Save Bretton Oak Tree' Petition – Action to be Taken, on the grounds that it contains sensitive information under:

- Paragraph 1 of Part 1 of Schedule 12A to the Local Government Act 1972 – information relating to any individual
- Paragraph 3 of Part 1 of Schedule 12A to the Local Government Act 1972 – information relating to the financial or business affairs of any particular person (including the authority holding that information).

The public interest test has been applied to the information contained within this exempt annex, and it is considered that the need to retain the information as exempt outweighs the public interest in disclosing it. The report is exempt as it relates to data provided to the Council as part of an ongoing insurance claim and therefore the Council is only able to use that data for the purposes of dealing with the claim and cannot make it public. In addition, the report provides advice on the Council's liability and therefore also has litigation privilege.

## 4. 'Save Bretton Oak Tree' Petition - Action to be Taken

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## 5. Date of Next Meeting

1 March 2022 - Growth, Environment and Resources Scrutiny Committee

#### **Emergency Evacuation Procedure - Outside Normal Office Hours**

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http://democracy.peterborough.gov.uk/ecSDDisplay.aspx?NAME=Protocol%20on%20the%20use%20of%20Recording&ID=690&RPID=2625610&sch=doc&cat=13385&path=13385

#### Committee Members:

Councillors: M. Farooq (Chair), R. Brown, C. Burbage (Vice Chair), G. Casey, N. Day, Judy Fox, A. Joseph, N. Moyo, L. Sharp, H. Skibsted and C. Wiggin Co-opted Member: Parish Councillor Michael Samways

Substitutes: Councillors: C. Fenner, A. Joseph, S. Qayyum and N. Sandford

Further information about this meeting can be obtained from Paulina Ford on telephone 01733 452508 or by email – <a href="mailto:paulina.ford@peterborough.gov.uk">paulina.ford@peterborough.gov.uk</a>

GROWTH, ENVIRONMENT AND RESOURCES SCRUTINY COMMITTEE	AGENDA ITEM No. 4
15 FEBRUARY 2022	PUBLIC REPORT

Report of:		Adrian Chapman – Executive Director, Place and	d Economy
Cabinet Member(s)	esponsible:	Cllr Nigel Simons – Cabinet Member for Waste, the Environment	Street Scene and
Contact Officer(s):			
	Richard Kay – Head of Sustainable Growth Strategy  Darren Sharpe – Natural and Historic Environment Manager		
	Sue Addison – Insurance Manager		

## 'SAVE BRETTON OAK TREE' PETITION - ACTION TO BE TAKEN

RECOMMENDATION	NS
FROM: Adrian Chapman – Interim Executive Director, Place and Economy	Deadline date: 15 February 2022

It is recommended that Growth, Environment & Resources Scrutiny Committee:

- 1. Acknowledges the duly made petition considered by Full Council on 8 December 2021, which sought the saving of an oak tree in Bretton, and thanks the petitioner for the considerable efforts in raising awareness on this important issue;
- 2. Considers the evidence in the papers provided, as well as the evidence as to be presented by speakers at the meeting, and determines a set of recommendations for Cabinet. Cabinet is scheduled to meet on 21 February 2022 to consider this matter. The three main options available to Cabinet are:
  - (a) determine that the consent that already lawfully exists for felling the tree be implemented; or
  - (b) determine that the consent should not be implemented, and instead undertake an alternative course of action; or
  - (c) determine not to take a decision, allowing the felling consent to lapse and consequently await to see what action, if any, the applicable insurance company(s) takes against the Council.

#### 1. ORIGIN OF REPORT

1.1 This report is submitted to Growth, Environment & Resources Scrutiny Committee following a referral from Council on 8 December 2021.

## 2. PURPOSE AND REASON FOR REPORT

2.1 The purpose of this report is to determine whether or not Scrutiny Committee wishes to express any recommendations to Cabinet regarding whether it should agree to implement the felling consent for an oak tree in Bretton. For the avoidance of doubt, the consent to fell already lawfully exists, and Cabinet will not be asked to redetermine such consent. Cabinet will simply be asked whether to implement the consent; or, if it determines not to implement the consent, determine what alternative form of action is considered most appropriate.

- 2.2 This report is for the Growth, Environment and Resources Scrutiny Committee to consider under its Terms of Reference Part 3, Section 4 Overview and Scrutiny Functions, paragraph No. 2.1 Functions determined by Council:
  - 2. Environmental Capital
- 2.3 An exemption is sought for Appendix A because it contains sensitive information under:
  - Paragraph 1 of Part 1 of Schedule 12A to the Local Government Act 1972 information relating to any individual
  - Paragraph 3 of Part 1 of Schedule 12A to the Local Government Act 1972 information relating to the financial or business affairs of any particular person (including the authority holding that information).

The public interest test has been applied to the information contained within this exempt annex, and it is considered that the need to retain the information as exempt outweighs the public interest in disclosing it. The report is exempt as it relates to data provided to the Council as part of an ongoing insurance claim and therefore the Council is only able to use that data for the purposes of dealing with the claim and cannot make it public. In addition, the report provides advice on the Council's liability and therefore also has litigation privilege.

#### 3. TIMESCALES

Is this a Major Policy	NO	If yes, date for	N/A (though it
Item/Statutory Plan?		Cabinet meeting	is to be considered by
			Cabinet on 21
			Feb 2022

#### 4. BACKGROUND AND KEY ISSUES

#### 4.1 Background

4.1.1 Scrutiny Committee will be aware that on 8 December 2021 a petition was presented and debated at Full Council. Full Council determined as follows:

A vote was taken on the proposal from the Cabinet Member and Council RESOLVED (unanimous with no Members indicating to vote against or abstain):

- a) Thanks the petitioner for raising this issue within the community and for demonstrating the deep feeling many people have about the potential loss of this tree; and
- b) Refers the issues to the Growth, Environment and Resources Scrutiny Committee to consider prior to Cabinet, offering suitable but proportionate arrangements to allow interested parties to express their views to the Committee; and
- c) Asks Cabinet to determine whether or not this Council should proceed to implement the consent already in place to fell this tree, taking account of the cost-benefit implications of either retaining the tree or implementing the felling consent.
- 4.1.2 The Growth, Environment & Resources Scrutiny Committee is therefore requested to consider this matter. At the meeting, it is scheduled to hold a debate into the matter, with the benefit of a number of external speakers (at the time of writing, such speakers are being arranged). This could include: speakers representing those whom have signed the petition; independent expertise on behalf of the petitioners; and independent expertise on behalf of the Council. It is likely Members of Scrutiny Committee will be updated approximately 48hrs before the meeting on the speakers attending. Unless strictly necessary, no additional papers will be circulated to Members.
- 4.1.3 Whilst the case is complex, and the decision very difficult to determine, the options to be presented to Cabinet are as follows. Either:

- (a) determine that the consent that already lawfully exists for felling the tree be implemented; or
- (b) determine that the consent should not be implemented, and instead undertake an alternative course of action: or
- (c) determine not take a decision, allowing the felling consent to lapse and consequently await to see what action, if any, the applicable insurance company(s) takes against the Council
- 4.1.4 Attached (Appendix 1) is a letter sent by officers to the petitioner (this being the same letter as presented to Full Council on 8 December 2021). This provides useful background information, and is not repeated here, other than to note a minor error on page 2 which refers to a decision date of 16 July 2020. The decision date was in fact 3 July 2020. This has no significant material effect on the contents of the letter, though Members should note the section below on 'timing issues' where this date is relevant.
- 4.1.5 Whilst the letter at Appendix 1 is a useful summary of the key issues and background, a number of other issues and queries have arisen since that letter was sent, and therefore this agenda paper provides further detailed background information on the following matters:
  - The application to fell the tree, and the procedures undertaken
  - The ownership of the tree
  - Property damage
  - Implementation costs of the options available and finance considerations
  - Timing issues

## 4.2 The application to fell the tree, and the procedures undertaken

- 4.2.1 Page 2 of Appendix 1 provides a summary of the planning history of this case, and highlights:
  - i. The original planning application (and consent) of 1998 relating to the building of property of 9 Barnard Way
  - ii. The application to fell 2 trees, received May 2020, and consent of July 2020
  - iii. 'Felling notification' process of April 2021
- 4.2.2 A number of queries have been raised in respect of (ii) above, and consequently additional information is provided. In summary, the queries have related to:
  - The 'discrepancy' between the details on the original application form, and the final details on the consent notice
  - Whether the ownership of the tree makes the application / consent invalid
  - Whether all 'due process' was generally followed
- 4.2.3 This report now first deal with the issue relating to the 'discrepancy' between the details on the original application form, and the final details on the consent notice.
- 4.2.4 The Council received an application (20/00652/TRE) to fell Oak T1 (Appendix 2). The application was supported by various documents, all of which are (and continue to be) available on the public register on our website\*. One such supporting document is an Arboricultural Assessment Report (Appendix 3). That Report made recommendations within section 4 to fell trees T1 and T2, with such two trees identified on a map in the appendices of the Report.

\*Whilst it is not considered necessary to review all the paperwork associated with the original application, should anyone wish to do so, then to view the application, you need to:

(a) start with our 'search page' for all planning applications: <a href="https://planpa.peterborough.gov.uk/online-applications//search.do?action=simple&searchType=Application">https://planpa.peterborough.gov.uk/online-applications//search.do?action=simple&searchType=Application</a>

(b) On that page, enter the application number in the box at the bottom of the page and press 'search': The reference number is 20/00652/TRE

- (c) Once you have done that, it should take you to the 'summary page' for that application.
- (d) To view detailed documents, click on the 'Documents' tab, and then click on 'view associated documents'. This should bring up a list of 14 documents for this particular case, with each document given a brief title so you should be able to pick the ones you are interested in.
- 4.2.5 That report in section 5 states that Peterborough City Council had confirmed to the applicant prior to application that T1 is subject of a Tree Preservation Order (TPO) but T2 was not. This was clearly incorrect, and it is unclear if, and if so why, the planning service of the council had made this statement. Nevertheless, the error was quickly spotted by the Council's tree officer post application being received, and a request was made to the applicant to amend so that it referred to T1 and T2. The Applicant responded with documentation and confirmed the amendments in an e-mail dated 08.06.20. The application description and reports were then updated accordingly within the Council's administrative system (Uniform).
- 4.2.6 Notwithstanding the corrections described above, the Arboricultural Assessment Report submitted also stated that tree T1 is requested to have a reduction rather than felling. Therefore, the Council's Tree Officer e-mailed the Applicant back on 08.06.20 questioning the works and requesting additional details. The Applicant responded by e-mail on 09.06.20 apologising for the confusion and confirming the felling (not reduction) of Tree T1.
- 4.2.7 Throughout the application process, therefore, the supporting information within the application has clearly indicated the recommendation to fell T2 (T8 within 06/0004/TPO). The applicant's omission to identify this within the original application was addressed promptly by the Council's Tree Officer, as was the clarification on the works requested (felling or reduction). The email correspondence with the applicant confirming these matters were recorded on the Council's internal case file. For completeness, they are attached for reference (Appendix 4).
- 4.2.8 This report now turns to the issue of whether the ownership of the tree invalidates the consent. A full explanation of the issues relating to ownership are set out at section 4.3 below. However, in respect of the application / consent process, the final conclusion on ownership is immaterial in terms of whether the consent is valid or not.
- 4.2.9 This conclusion can be reached because anybody can apply for any form of planning (including tree works) consent on anybody's land. Of course, implementing such consent would be impossible without the landowners' consent, but that is not a relevant matter for the application process and the decision maker. Where an application is made by someone for something on someone else's land, the planning system has an expectation that the actual owner be made aware. In this case, there are only two possible owners of the tree: the home owner and the council. The homeowner submitted the application, and the council received the application. Both parties are therefore clearly aware of the application.
- 4.2.10 In terms of the consent itself, all planning related consents follow the same basic principle that the consent goes with the land, not the applicant. Thus, if the ownership of the land changes, the consent simply transfers automatically to the new land owner. Consents cannot be withheld, or sold separately.
- 4.2.11 As such, overall, it is irrelevant who applied, who owns the land, or whether the ownership has changed. The consent exists, and remains with the owner. In terms of due process and consent procedures, therefore, the issues around who actually owns the tree is irrelevant.
- 4.2.12 Finally, this report now turns to whether all other due process was followed. In this case, no evidence has been provided by any party to suggest that all legal steps were not taken, or that the council's constitution was not followed. For example, the constitution does not require the application to be determined by the council's Planning and Environment Protection Committee.
- 4.2.13 Overall, therefore, officers are confident that a valid consent exists and the consent can lawfully be implemented.

## 4.3 The ownership of the tree

- 4.3.1 Whilst the ownership of the tree is not deemed relevant to the consent procedures, ownership is relevant in terms of who would implement the felling consent (or determine not to implement it).
- 4.3.2 At the outset, it is worth noting that the homeowners (via their agents and insurance company) applied to fell the tree in question, as direct damage to property was occurring. Ultimately, if ownership was determined to be with the homeowner, then the council has the extremely strong expectation that the tree would be felled. This is on the basis that not to do so would highly likely be contrary to the advice of their insurance company, and consequently future damage to their property would highly likely be uninsured. In effect, the homeowner would likely have to pay for all future damage occurring.
- 4.3.3 As such, the homeowner is not seeking to fell the tree because of some minor nuisance. Felling the tree is on the advice of their insurance company, and failure to follow the advice would amount to the property being uninsurable (and, consequently, highly likely unsellable for anything like market value). The homeowner faces the predicament that they don't want to lose the tree, but they can't live with the tree (unless a solution is found which satisfies the insurance risk see options below).
- 4.3.4 Regarding the ownership of the tree, on which the consent falls upon, and the liability to act falls upon, there are two possible routes to take to attempt to confirm this.
- 4.3.5 The first option relates to legal ownership. For land (and trees) on what appear to be on-the-ground as sitting on the 'boundary line' between properties, it can be extremely difficult to determine precise legal ownership. Such boundary lines may be centuries old. Land registry records are insufficiently accurate to this scale (it is generally accepted all land registry records have a margin of error of at least 1m on boundaries).
- 4.3.6 To get as near as definitive answer as possible, a specialist in boundary disputes could be employed. Such specialists use a wide range of evidence, and make judgements based on both written material and on-the-ground evidence (taking account of things such as any ditches, and whether trees were likely planted on the boundary line, or inside it). Such specialists are expensive and hard to secure (and therefore time consuming). Such costs and time weighed in favour of not securing such services.
- 4.3.7 Weighing even greater in favour of not securing such services was the issue that legal ownership is not even relevant if it is deemed one party has legal *responsibility* for the land (tree). Such responsibility can occur if one party has persistently and over a long period of time managed and maintained such property. In the case of this tree (and the hedgerow it sits within), the council has managed and maintained the tree (and hedgerow) for at least the last 15 years, and probably since the homes were constructed just over 20 years ago.
- 4.3.8 Such a length of time means that there can be no doubt that the responsibility to manage the tree in the future (and abate any nuisance it causes) falls with the council. It is, therefore, the council's responsibility to take action, and it would be liable if it failed to do so.
- 4.3.9 At the time of the application, ownership (or responsibility) was not clear (and notes on the case file confirm this). However, as this was not a relevant matter to the determination of the application, a categoric ownership and/or responsibility position need not be reached. It was only when it came to the felling of the tree, post consent, that the council accepted the tree was its responsibility.

## 4.4 Property Damage

4.4.1 There has been some speculation as to whether damage has actually occurred, and if so, to what part of the building. It has been suggested the damage is 'only' to a conservatory, and that such

a conservatory does not have planning consent. It is therefore necessary to clarify the situation on all these matters.

4.4.2 It is the Council's understanding that the greatest visible evidence of damage relates to the conservatory. However, further damage is clearly apparent, both external and internal, of the main property itself. As part of the application (Engineering Appraisal Report) (Appendix 5), such damage was classified as follows:

"The level of damage is moderate, and is classified as category 3 in accordance with BRE Digest 251 - Assessment of damage in low-rise buildings."

And, the same report concludes that the cause of damage is as follows:

"we are of the opinion that damage has occurred due to clay shrinkage subsidence. This has been caused by variations in the moisture content of the clay subsoil, resulting in volume changes, which in turn have affected the foundations"

It further recommends:

"We consider the damage will not progress if appropriate measures are taken to remove the cause. In this instance it is likely that vegetation for which the Local Authority is responsible is contributing toward the cause of damage."

(Note: by 'vegetation' it is referring to the tree in question)

- 4.4.3 It is important to consider the issues that have been raised regarding the conservatory. It is confirmed that the tree is causing damage to the conservatory at the property and that such a conservatory was built (by a previous owner) without the necessary permissions. The Council as Local Planning Authority has undertaken an enforcement review and concluded, however, that no prosecution action could be taken as the conservatory was at least 10 years old and therefore immune from any enforcement action. As a result, if a tree that is the responsibility of the Council which is proven to be causing damage to the conservatory, it has a legal duty to abate that nuisance.
- 4.4.4 However, as the damage extends beyond the conservatory to the main house, it is largely irrelevant what damage is occurring to the conservatory, or its planning history as even without the conservatory, the same issues (and difficult decisions) remain. As such, no further commentary is considered necessary or appropriate on this issue.
- 4.4.5 This report now turns to the independent arboricultural report submitted on behalf of the petitioners, prepared by Ethical Arboriculture, and received by the council towards the end of 2021. To be clear, this report was not sought by the council, but in the interests of transparency, it is presented to Scrutiny Committee (Appendix 6). That report makes a number of claims, including two principal ones:
  - Whether the damage is caused by 'heave' rather than 'subsidence' (and, hence, removal of the tree could make matters worse); and
  - Justification for removing the tree, considering the "conservatory is technically an illegal structure"
- 4.4.6 In terms of the 'heave' point, the Council commissioned specialist advice to advise on this suggestion, as well as wider issues raised in the independent report. Such advice is provided at Appendix 7. In summary, such advice states that 'heave is not the cause of the damage'. The advice also makes reference to the matter of the conservatory, and is aligned to the issues already addressed above, and not considered again here.
- 4.4.7 Overall, the advice the Council has received determines that no material evidence is presented by the Ethical Arboricultural report that points to a course of action, or need for new investigation, that has not previously already been considered or investigated. As such, whilst the Council is

grateful to the petitioner for sending the independent report, it does not change the options available to the Council.

4.4.8 There is one additional very recent piece of evidence to be considered. On 12 January 2022, the council received confirmation from insurers (Sedgwick) acting on behalf of 10 Barnard Way (i.e. the neighbour to 9 Barnard Way) that subsidence damage is also occurring to 10 Barnard Way, and that an insurance claim is proceeding on that basis. The insurers have confirmed that they have consented for this information to be shared with Scrutiny Committee. Whilst the full details are not available, should the Council fail to abate the nuisance in accordance with the first claim (9 Barnard Way), then it is extremely likely that a second claim will be made to the council regarding damage to this second property (10 Barnard Way).

## 4.5 Implementation Costs and Finance Considerations

- 4.5.1 Officers are confident beyond any reasonable doubt that the tree is causing structural damage to private property, and will continue to cause further structural damage in the future. Whilst it is uncertain of the scale of future damage, there is now a known high risk that damage has spread beyond the original single property to the neighbouring property. Potentially, damage could extend to three more properties in the future, though it is accepted that, whilst a real risk, it is a lower risk than the two properties we are aware of.
- 4.5.2 The Council has a legal duty to abate the nuisance (i.e. take action to prevent further damage) caused by the tree. Do nothing is not considered to be an option. As the letter to the petitioner demonstrates, a number of options have been considered.
- 4.5.3 Ultimately, felling the tree is the only proven way to most likely succeed at abating the nuisance. All other options would have a considerable risk of failure, or would do nothing or very little to mitigate the risk of damage to wider properties. Regarding the root barrier option, the Council has no means of enforcing this option, as such work would have to take place on private land.
- 4.5.4 Finance is, undoubtedly, a key consideration for the council.
- 4.5.5 To date, the costs to repair the damage are covered by insurance. Therefore the council has no financial liability at this stage as the damage was reasonably unforeseen. However, now that the Council **knows** damage is occurring, and will likely lead to further damage, all future costs are, in simple terms, uninsurable i.e. the council would have to meet all such costs. There is one exception to this. If the tree is felled, the evidence suggests that further damage in the medium to long term should not occur, and that the council would have taken reasonable steps to abate the nuisance. If, despite felling, further significant damage did occur, the council would be in a very strong position to resist claims (because it had done all it could, and had followed the advice) and instead such further repair would, in all likelihood, be covered by insurance.
- 4.5.6 If alternative options, such as pruning or root barriers were undertaken, but damage continued (or went on to cause damage to a third property) the council would be in a very weak position to resist such claims and the costs would most likely fall on the council. There appears to be a misconception that such future damage would also be covered by insurance, and it is important to stress that it would not.
- 4.5.7 Financially, felling is consequently the lowest cost option. Pruning would also be low cost, but with some on-going management costs (and, in reality, the pruning would be so severe as to lose much of the wider value of the tree in any event). Root barriers are somewhat of an unknown cost, but would be a significant five figure sum for each property installed, plus additional unknown compensatory sums payable to the home owners affected (and this assumes the home owners were willing to have root barriers installed across their gardens). Greater certainty on root barrier costs is not possible, as it is not a common form of intervention (and hence there are limited case studies to draw upon) and even less common involving multiple landowners. The Council has no direct experience of using root barriers. However, to put the scale of works into context, the root barrier must be deep enough to prevent the roots going under them; they must be wide enough to prevent roots going around; and they must be high enough (i.e. above ground level) to prevent

roots going over. Both pruning and root barriers have a higher risk of failure, in the long term; and if they did fail, damage to the property which arose would highly unlikely to be covered by insurance (i.e. the council would be liable for such costs).

- 4.5.8 Retaining the tree and underpinning all affected properties is a realistic deliverable option, but financially is an exceptionally high-cost option. The Council has direct experience locally of underpinning costing in the region of £200,000 for a single house, smaller than the property affected today but similarly affected by a mature tree, and undertaken a few years ago. For the current affected property, it is clearly expected a larger sum would be payable and the Council is now aware of a second property affected. If a third or more properties were affected in the future (low risk, but still a risk), the same such sums would be payable again for each home underpinned (or, for such second or third cases, the tree felled at that stage, which in effect would make the first underpinning a redundant but very costly exercise).
- 4.5.9 Officers have spent a considerable time grappling over the loss of such a valued tree (the letter at Appendix 1 confirms the CAVAT value of the tree in excess of £300,000), and the exceptionally high costs and risks associated with attempting to save it. Ultimately, officers continue to reach the same conclusion: it is not justified to place the council in a position of liability to spend £100,000s. The council is aware of two properties already affected with a potential cost for each of c£200,000 and there is potential for up to a further three properties to be similarly affected.

## 4.6 Other important matters for consideration

- 4.6.1 There is widespread acceptance that the oak is a fine tree of considerable landscape value, and much loved by the local community. Its loss would undoubtedly be deeply felt.
- 4.6.2 The tree (like all trees) also provides many wide-ranging other benefits, including its contribution to biodiversity, carbon fixing, air quality improvements, urban cooling and mitigating against flood risk. Mature oak trees, such as this one, are particularly highly valued on many of these counts, especially the biodiversity value they bring.
- 4.6.3 As stated above, and in Appendix 1, it is even possible to put an estimated monetary value to these wide-ranging benefits, and this stands at approximately £330,000. Such value has been taken into account by officers considering the options for this tree.
- 4.6.4 There is, therefore, common ground by all parties, that retaining the tree would be highly beneficial. That is not questioned. The issue is whether the council can afford to pay the substantial costs to save the tree, and whether it would be value for money to do so. In a nutshell, this is the matter that Scrutiny Committee, and then Cabinet, have to grapple with.

## 4.7 Timing considerations

- 4.7.1 Time is of the essence with timing considerations raised below.
- 4.7.2 From a procedural point of view, the felling consent ends on 3 July 2022. If the felling has not happened by that date, the consent lapses, and felling could not lawfully proceed. A new application to fell would have to be made, and such a fresh application considered. This would, of course take time, and with uncertain outcome.
- 4.7.3 From a biodiversity perspective, the bird nesting season will commence shortly. In summary, it is illegal to damage or destroy an active bird nest. As such, if nests are apparent when felling is due to take place, either only partial felling would be allowed (i.e. away from the nests) or no felling at all if there was a risk to a nest. The risk is, should a nest be identified, the delay would extend beyond the planning consent, meaning the consent would lapse.
- 4.7.4 The most crucial timing aspect to consider is the commencement of the growing season. As soon as the tree 'springs' into life after its winter dormant period, it will rapidly suck moisture from the ground. The ground will then start to dry and, ultimately, the clay soil will start to shrink once more. Once it starts to shrink, the subsidence risk recommences. The timing and degree of these

matters is hard to predict, and to a large degree is weather dependent. But if we have a dry spring, the subsidence risk is brought forward earlier than would be the case with a wet spring. The consequence of this matter is important to understand.

- 4.7.5 As soon as property movement (subsidence) is recorded again this spring or summer, the insurance company(s) would be in a strong position to claim that the council has failed to take action in a timely manner to abate the nuisance (i.e. the council had allowed another growing season to occur). On that basis, the insurance company may decide to wait no longer for the council to abate the nuisance and commence its own action to reduce the damage on the property(s). This is likely to be the underpinning option.
- 4.7.6 If the insurance company does so, there is a very real and likely prospect that the council would be faced with paying for such costs which, as identified earlier, would likely run to several hundred thousand pounds. The Council would then be left with an on-going liability of the tree, as well as financial payment to make.
- 4.7.7 Therefore, timing is a very important consideration. If no decision is reached, matters will likely be taken out of the council's hands. Furthermore, the likely scenario of such a 'no decision' would be a very high financial claim made on the council, a claim which would be very hard to defend.

#### 4.8 Growth, Environment and Resources Scrutiny Committee Consideration

4.8.1 This agenda report has been written and published in advance of the Scrutiny meeting due to take place on 15 February 2022. It is anticipated that there will be considerable debate at that meeting, assisted by external speakers. It is important, therefore, that Scrutiny Committee retains an open mind on this matter, and listens carefully to the contributions made at the meeting by all parties.

#### 5. CONSULTATION

5.1 The original tree works application was duly consulted upon in accordance with all necessary procedures. Post a decision, a tree felling notification consultation was also duly undertaken in accordance with all necessary procedures. Officers are confident there have been no failures in respect of appropriate consultation. At the time of writing, the intention is to hold briefing meetings in early February with both the householders affected, and those leading the petitioning to save the tree.

#### 6. ANTICIPATED OUTCOMES OR IMPACT

That Scrutiny Committee will offer recommendations to Cabinet in respect of whether or not the felling consent should be implemented.

#### 7. REASON FOR THE RECOMMENDATION

7.1 Full Council has expressly asked Scrutiny Committee to offer its recommendations to Cabinet. The various options are set out in the letter to the petitioner, attached.

## 8. ALTERNATIVE OPTIONS CONSIDERED

- 8.1 The options are set out in the attached appendix 1, and discussed throughout this report, but in summary:
  - 1. to install root barriers high risk of failure, despite considerable cost, and not under the control of the council to implement.
  - 2. to prune the tree (and regularly prune thereafter) not generally effective, unless extensive and frequent, negating the amenity value of the tree. Even with frequent pruning, risk remains. Relatively low cost, albeit ongoing annual (or so) costs.
  - 3. to do nothing not legally an available option. The Council is duty bound to abate the nuisance.

4.to accept liability and costs associated with underpinning properties affected. Effective, but very expensive, and not covered by insurance.

5. to fell the tree – effective at abating the nuisance, and low cost, though obviously the tree is lost in its entirety

The additional option to 'defer' a decision is discussed in this covering report, and is not recommended due to the considerable uncertainty and risk involved due to a number of matters (consent lapsing; bird nesting season; growing season; insurance risk)

#### 9. IMPLICATIONS

## **Financial Implications**

9.1 The costs associated with felling the tree can be met from the current tree maintenance budget.

If an alternative recommendation is taken forward, then the pruning option is likely to be affordable within the current (and future years) tree maintenance budget. If the pruning option failed to achieve its objective (I.e. failed to abate the nuisance), the council would be liable for all future costs associated with damage occurring. This will be substantial, and is not budgeted for.

If the root barrier or underpinning options are taken forward, these are not budgeted for and there is no scope with existing budgets to allow for such costs. Such costs are somewhat unknown in scale or time. The root barrier option, whilst still substantial but likely lower cost than underpinning, will be dependent on (a) willingness of homeowners to install them, with agreed compensation; and (b) the success of their implementation.

If no decision is reached by Cabinet in the very near term, then no action is taken and no cost is directly, immediately, incurred. However, as stated at section 4.7.7, if no decision is reached in the near term, matters will likely be taken out of the council's hands. Furthermore, the likely scenario of such a 'no decision' would be a very high financial claim made on the council, a claim which would be very hard to defend.

#### **Legal Implications**

9.2 The council has a legal duty to abate the nuisance caused by the tree. Do nothing is not a legally available option.

Felling the tree is an immediately available legal option, as a consent exists (albeit this lapses in July 2022).

Installing root barriers is not an immediately available legal option, and would rely on an agreement (including compensation) with at least one home owner, but more likely more than one. There is no guarantee such agreement will be reached, therefore there remains doubt that this option will ever be legally available.

The option to underpin the property will depend on discussions taking place with the home-owner (or their representatives, such as the insurance company). It is likely the works would take place, by arrangement of the insurance company, with the council being liable for such costs.

## **Equalities Implications**

9.3 Nil

#### Carbon Impact Assessment

9.5 The tree is assumed to be still healthy and growing, and consequently will have a positive climate impact in terms of capturing carbon from the atmosphere. Whilst impossible to determine with any accuracy, a figure of 20-30kg CO2 per annum would be reasonable for this tree. To put that in context, that's the equivalent of approximately a single 100-mile journey in a typical car, each

year. Felling the tree would obviously stop that carbon capture, albeit 6 replacement trees are proposed which over time, should they mature, likely capture greater amounts per annum than this single oak. The felling, and 6 replacement, proposal is therefore, on balance, and over the long term, probably carbon neutral, potentially carbon positive (though uncertain).

Alternative options of root barriers and underpinning would mean the tree continues to capture carbon. However, the extensive works involved would in themselves have a carbon impact. Underpinning the property with steel would have a high negative impact (1,900 kg CO2 is emitted for every tonne of steel produced. It is unknown the volume of steel to be used, but there would be a considerable long period of time for the tree to 'payback' the CO2 emitted from the steel). Any concrete used would similarly have a high impact (around 200 kg CO2 per tonne produced, or 400 Kg CO2 per sq m). Whilst difficult to quantify, there is the potential for the alternative options (whereby the tree is saved) to be carbon negative, or will take a long time to become carbon neutral or carbon positive.

Overall, the numbers for all options are, on the scale of things, fairly marginal.

The worst scenario would be the need to underpin more than one property. If that was the case, the balance would clearly become a negative carbon impact, potentially significantly.

#### 10. BACKGROUND DOCUMENTS

Used to prepare this report, in accordance with the Local Government (Access to Information) Act 1985

10.1 Report to Full Council 8 December 2021 – Petition for Debate 'Save Bretton Oak Tree'

## 11. APPENDICES

11.1 Appendix A - Exempt

Appendix 1 - Letter to Petitioner, dated 29 November 2021

Appendix 2 – Original application form

Appendix 3 – Arb Assessment Report

Appendix 4 – Email exchange with applicant

Appendix 5 – Engineering Appraisal Report

Appendix 6 - Independent Arb Report

Appendix 7 – P Harris Comments on Independent Arb Report

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**Telephone:** (01733) 863795

**E-Mail:** richard.kay@peterborough.gov.uk

Please ask for: Richard Kay

Our Ref: Bretton Oak Tree - Petition

Your Ref:



## Please reply to:

Planning Services, Place and Economy, Sand Martin House, Bittern Way, Fletton Quays Peterborough. PE2 8TY

Date 29th November 2021

Mr Hopkins (sent by email only)

Dear Mr Hopkins

Re: Your Petition - "Save Bretton Oak Tree"

Thank you for taking time to raise a petition on our website, and more broadly helping to raise awareness about the proposal to fell a mature oak tree in Bretton. Your involvement has helped prompt a wide debate on the issues involved.

Your petition seeks the council to "retain the Oak Tree on Blind Lane, Ringwood, Peterborough", and I am advised that well over 500 validly made signatures have been received (I understand the figure is currently close to 700, with the petition officially closing on 30<sup>th</sup> November).

I understand that you have been previously notified by Philippa Turvey (Democratic and Constitutional Services Manager) that should 500 valid signatures be received, then the option exists to debate the petition at a meeting of Full Council on 8 December 2021. Having passed the necessary threshold, I understand from Philippa that you have requested to take up that option of a debate at Full Council.

However, prior to such a debate at Full Council, our petition rules explain that an appropriate officer of the council should respond to the petitioner in the first instance, and that response should form part of the papers (alongside the petition) that is presented in advance to Full Council or Cabinet. This letter is, therefore, that response. I appreciate some of the content of this letter you may already be aware of, but nevertheless, it is worthwhile setting out the details in full.

First, some preliminary background. The case revolves around two trees in close proximity to each other, to the rear of 9 Barnard Way. One tree (T1 on the map below) within a private garden, the second (T2) on the boundary of private garden and council land. Originally, the second tree was assumed to be in the private garden (and therefore responsibility of the home owner), but as of January 2021 it was established to be the responsibility of the council.

The first tree (T1 in the private garden) has been lawfully felled in the past 18 months. This letter (and your petition) therefore focusses on the second (T2 – council owned) tree. The Map below is an extract of the tree works application as submitted and publicly available.



In terms of the application and consent process, I can clarify as follows.

T2 tree identified on the above map is protected by *TPO 06/0004/TPO ref T8 Oak* in 2006 (which, incidentally, superseded an earlier 1970's revoked *TPO ref 70/00002/TPO* ref tree T47).

Permission to build 9 Barnard Way property was granted planning permission in 1998 (ref application 98/01011/FUL). It is evident from the case files that full consideration of the mature oak trees was taken within the planning consideration and decision process, with such considerations concluding, in accordance with national guidelines of that time, that the proposals as consented should not cause a conflict with the trees.

Some 20 years later, an application to fell the two trees was received on 21 May 2020 (application ref 20/00652/TRE).

The application stated that the "tree works are proposed as a remedy to the differential foundation movement at the insured property and to ensure the long-term stability of the building". Put simply, the application was on the basis that there is evidence beyond reasonable doubt that the two trees are causing, and will continue to cause further, damage to property, at 9 Barnard Way. The applicant was PRI Insurance Services on behalf of the implicated property owner.

Consultation on the proposal duly took place (including Bretton Parish Council on 27.05.20). No responses were received. The application was also advertised on the council's standard 'weekly list' (i.e. a list the council publishes weekly of all planning and similar applications received that week).

The application was determined on 16 July 20 with consent given for two Oak trees to be felled. T1 (on the map earlier in this briefing) subsequently has been felled. T2 not felled, but has valid consent to do so for 2 years (i.e. until July 2022).

Where council trees are to be felled, a 'felling notification' is issued. This is separate to any trees work application, as described above. In this case, and as part of our routine felling notification processes, the following occurred:

- Site notice attached to the tree on or around the 6th April 2021 and replaced at least once.
- Letter to adjoining residents April 2021 (9 & 10 Barnard Way, 3 Barnard Crt, 1,2 & 10 Ringwood).

- Published on the Council website April 2021.
- · Letter via email to relevant Councillors

Thus, in short, for the oak tree in question, a valid application was submitted, due process to consult was undertaken, and a valid decision to fell was reached. That consent to fell remains valid.

I next turn to the financial value of the tree, a matter you raise in your petition. Your petition states: "This tree has an approx. CAVAT value of over £300,000." I can confirm the accuracy of this point. For the benefit of wider readers of this letter, once it is published, a financial value of a tree can be calculated using a system known as CAVAT (community asset value for amenity trees). CAVAT provides a method for managing trees as public assets rather than liabilities. It is designed not only to be a strategic tool and aid to decision-making in relation to the tree stock as a whole, but also to be applicable to individual cases, where the value of a single tree needs to be expressed in monetary terms. In this case, the CAVAT value of the tree is estimated in the region of £330,000. This, of course, is not a 'cash value' (in that it cannot be bought or sold for £330,000), but is an estimate as to its wider non-tradeable value. In this case, it is of course a considerable sum, and was taken into account as part of the deliberations.

I would next like to touch upon the age of the tree. Whilst your petition does not suggest a specific age for the tree, it does state that the tree is "One of the last standing Oak Trees from the original Grimeshaw Woods (14th century)", thereby implying the tree is perhaps 600-700 years old. This approximate age was also widely reported in the press. However, it is not deemed to be an accurate estimate.

As part of the assessment process, the tree in question has not been assessed to be 'Ancient' (a term defined by national policy). Nevertheless, I acknowledge it is of a large size and thus may be referred to as 'notable' (a description which is agreed by the Woodland Trust on its website). With a girth (circumference) of approx. 5.2 metres, it has an estimated age of approximately 300 years (see - <a href="http://www.wbrc.org.uk/atp/Estimating%20Age%20of%20Oaks%20-%20Woodland%20Trust.pdf">http://www.wbrc.org.uk/atp/Estimating%20Age%20of%20Oaks%20-%20Woodland%20Trust.pdf</a> for how this is calculated). Whatever true age the tree has (and of course nobody can be certain of this), I think there is widespread acceptance that the tree is a significant landscape feature. As such, every effort has been made to retain it.

Once the ownership of the tree was confirmed as being the council's, the council considered a number of options. A summary of the five substantive options considered are in the table at Appendix 1 of this letter.

On the basis of the evidence, risks, liabilities and costs, the decision to fell (option 3) was determined.

Having carefully considered your petition, and considered other representations the council has seen or read in the press or on social media, as well as taking account the substantial costs involved in retaining the tree when balanced against the very difficult financial constraints the council operates in, it is the opinion of officers that, and with great reluctance, the decision to fell remains the most appropriate way forward. As such, I cannot recommend to Councillors that your petition request be agreed to.

I appreciate this is not the response you wanted to read, but I hope this comprehensive letter of explanation helps in some way to understand the very difficult decision the council faced.

Yours sincerely

Richard Kay

Head of Sustainable Growth Strategy

Appendix 1: Options considered

Option description	Tree retained (Y/N/ partial)	Cost to implement	Risk of option failing to achieve intended outcome	Additional comments
Retain the tree. In doing so, council to accept all future liability for damage caused by the tree on nearby properties (accepting this liability is a legal requirement).  The evidence suggests that underpinning of at least one property is highly likely, and potentially could extend to 5 properties over the life of the tree.		The claimant's insurers suggest (as part of the applications files) that this option would cost in the region of £75K.  However our Independent Structural Engineer has considered this to be a substantial underestimated. Indeed, PCC has direct evidence of having underpinned a property close to this location at a cost of £200k, and such a property was smaller than those associated with this tree. As such, it is not unreasonable to assume that retaining the tree in this instance would lead to a potential liability of over £200k per property, and that up to 5 properties could potentially be affected (at present, only 1 property is confirmed as affected, but the 'zone of influence' of the tree roots potentially extends to five properties)	Provided the full extent of the property and other built structures within the property are fully underpinned there is limited scope for this action failing.	Research has shown that Oak trees can have a potential to damage properties up to 30 metres away from it (DF Cutler & IBK Richardson). Having plotted this distance on a map it can be seen that up to five properties may be influenced by the tree in the future. These risks may be low for some of the properties, other than the neighbouring property, but demonstrate the futur e risks that must be considered.
Prune the tree.	Partial	The cost to prune the tree would be approx. £1,000 each time it was pruned (i.e. every two years)	Published research (known as Hortlink 212) concluded that pruning was not generally effective in reducing moisture demand of trees except for a very short period. In essence, for pruning to be effective for anything more than the first season. There is a high risk that pruning would fail to abate the nuisance.	

Fell (with replanting nearby): Felling would allow the soils underneath the building(s) to stabilise during the first winter after felling. Six selected trees have been agreed to be replanted with a height of 3-3.5m at the time of planting.	No	Cost to fell the tree approx. £2,000 Security measures £3-5,000 (estimate) Cost for replacement trees £4,980	No risk of failing to abate the nuisance.	
Construct root barriers	Yes	It is estimated that the installation of a root barrier would be in the region of £30-40K + compensation costs + future liability costs.  Such barriers would need installing in at least two (potentially more) private gardens. Agreement and Compensation for such measures would therefore need to be agreed with all such property owners (such agreement may not be forthcoming).  If the root barrier fails, PCC would be liable for future damage costs to the property (see option 1). The total cost is therefore unable to be quantified, but potentially the highest of all options.	The effectiveness, nationally, of a root barrier has not yet been fully proven, however they can be considered as an option where future services or normal gardening activities would not likely breach the barrier.  The problem with this site is that the barrier would need to installed at a considerable depth and length and would need to span two private residential gardens. Permissions and compensation would have to be negotiated with the residents if this approach were to be progressed.  It is therefore a high risk of failure, despite considerable cost, and not under the control of PCC to implement.	After installation there would be no ability for the council to control or monitor potential damage (accidental or otherwise) or breaches of the barrier, yet potentially (highly likely) remain liable for any future damage to the property if the roots breached the barrier.  The council would have no control over maintenance or repair of the root barrier, or ability to monitor whether it was damaged.
Do / spend nothing at all, even though damage to private property has occurred.	n/a	n/a	n/a	This is not an option. PCC is responsible for the tree and any damage it causes. PCC has a legal duty to abate the nuisance arising from the tree. Also, as it is known that further future damage will beyond any reasonable

	doubt occur to property if the tree remains, then all such costs must be met ourselves. Such costs will not be covered by insurance as we will not have not taken action to mitigate or prevent it i.e. it is uninsurable.
--	--

# **PETERBOROUGH**



Sand Martin House Bittern Way Fletton Quays Peterborough PE2 8TY

planningcontrol@peterborough.gov.uk 01733 453410

Application for tree works: works to trees subject to a tree preservation order (TPO) and/or notification of proposed works to trees in a conservation area.

## Town and Country Planning Act 1990

#### Publication of applications on planning authority websites.

1. Trees Location

Number

Suffix

Property name

Please note that the information provided on this application form and in supporting documents may be published on the Authority's website. If you require any further clarification, please contact the Authority's planning department.

Address line 1	Barnard Way	
Address line 2	Bretton	
Address line 3		
Town/city	Peterborough	
Postcode	PE3 9YZ	
If the location is unclear as possible where it is ( 'Woodland adjoining Eli	r or there is not a full postal address, describe as clearly for example, 'Land to rear of 12 to 18 High Street' or m Road')	
Easting (x)	515852	
Northing (y)	299203	
Description		
2. Applicant Detai	ils	
2. Applicant Detai	ils Mr	
Title	Mr	
Title First name	Mr Craig	
Title First name Surname	Mr Craig Thomas	
Title First name Surname Company name	Mr Craig Thomas PRI Insurance services	
Title First name Surname Company name Address line 1	Mr Craig Thomas PRI Insurance services 2 The Courtyards	
Title First name Surname Company name Address line 1 Address line 2	Mr Craig Thomas PRI Insurance services 2 The Courtyards Phoenix Square	

2. Applicant Detai	ils			
Town/city	Colchester			
Country				
Postcode	CO4 9PE			
Primary number				
Secondary number				
Fax number				
Email address				
Are you an agent actin	g on behalf of the applicant?	OW	- ON-	
Are you arragent actin	g on behall of the applicant:	Ų Ye:	s	
3. Agent Details  No Agent details were s	submitted for this application			
4 140 4 4 14				
4. What Are You	Applying For?			
Are you seeking consent for works to tree(s) subject to a Tree Preservation Order?				
Are you wishing to carr	ry out works to tree(s) in a conservation area?	○ Ye	s   No	
5. Identification o	f Tree(s) and Description of Works			
Please identify the tree	e(s) and provide a full and clear specification of the works	you want to carry out.		
You might find it useful	I to contact an arborist (tree surgeon) for help with definin	ng appropriate work.		
	cted by a Tree Preservation Order, please number them a use the same numbering on your sketch plan (see help for		rvation Order where this is	
Please provide the follo	v			
<ul> <li>The number used on</li> <li>A description of the p</li> </ul>	the sketch plan); and roposed works.			
- Reasons for the work	cted by a Tree Preservation Order you must also provide: ;; and where trees are being felled g replacement trees (including quantity, species, position			
e.g. Oak (T3) - fell bec	ause of excessive shading and low amenity value. Repla	nt with one standard ash in same position.		
Statement of Reasons fell and treat one Oak	for Tree Preservation Order Application to tree (T1) at: 9 Barnard Way, Bretton, Peterborough, PE3	9YZ		
1.The above tree works building.	s are proposed as a remedy to the differential foundation	movement at the insured property and to ensure	the long-term stability of the	
	s are proposed to limit the extent and need for expensive osts are likely to vary between £28,000 and £75,000, dep			
3.The above tree works property.	s are proposed to limit the duration of any claim period a	nd therefore allow the landowner their right to the	peaceful enjoyment of their	

# 4.It is the case that an alternative to felling such as pruning or significant 'pollarding' of the tree would not provide a reliable or sustainable remedy to the subsidence in this case. We do not consider that any other potential means of mitigation, including root barriers, would be effective or appropriate in the circumstances.

5.We are satisfied that the evidence obtained following completion of our Arboricultural Implication Assessment report completed 03/070/2019, clearly links the T1 Oak tree as the cause of damage to the risk address

6.Insurers understanding the requirement to offer replacement planting in the event consent to fell is granted.

## 6. Trees - Additional Information

#### For all trees

A sketch plan clearly showing the position of trees listed in the question 'Identification of Tree(s) and Description of Works' MUST be provided when applying for

6. Trees - Addition	nal Information		
works to trees covered notes).	by a Tree Preservation Order. A sketch plan is also advis	sed when notifying the LPA of works to tree	es in a conservation area (see guidance
t would also be helpful	if you provided details of any advice given on site by an	LPA officer.	
For works to trees cov	vered by a TPO		
	f the proposed work involves trees covered by a TPC		
Please indicate whethe necessary evidence to s	r the reasons for carrying out the proposed works include support your proposals (see guidance notes for further de	e any of the following. If so, your application etails).	n MUST be accompanied by the
1. Condition of the tree	(s) - e.g. it is diseased or you have fears that it might bre	ak or fall	
f Yes, you are required	to provide written arboricultural advice or other diagnost	ic information from an appropriate expert.	
2. Alleged damage to p	property - e.g. subsidence or damage to drains or drives.		
f Yes, you are required	to provide for:		
Subsidence: A report li from an arboriculturist to	by an engineer or surveyor (to include a description of da o support the tree work proposals.	mage, vegetation, monitoring data, soil, roo	ots and repair proposals) and a report
Other structural damage oossible solutions.	ge (e.g. drains walls and hard surfaces): Written technica	Il evidence from an appropriate expert, incl	uding description of damage and
Documents and plans	(for any tree)		
Are you providing addit 'Identification of Tree(s	tional information in support of your application (e.g. an a ) and Description of Works')?	dditional schedule of work for question	● Yes ○ No
If Yes, please provide t	the reference numbers of plans, documents, professional	reports, photographs etc in support of you	r application
134172 - 2020-05-20 -	Engineering Appraisal Report Level monitoring PRI INS TPO Statement of Reasons Root Sample Report SI Factual Report SIReport Site plan Soil Sample Report Trial Hole Report		
7. Tree Ownership			
Is the applicant the own			○ Yes    No
	he address of the owner (if known and if different fro	m the tree location):	
Name/Company			
Title:			
First name:			
Surname:			
Company name:			
Address			
Number			
Suffix			
Property name			
Address line 1	9 Barnard Way		
Address line 2	Bretton		
Address line 3			
Town/city	Peterborough		

7. Tree Ownershi	p		
Postcode	PE3 9YZ		
Contact Details			
Primary number			
Secondary number			
Fax number			
Email address			
8. Tree Preservat	ion Order Details		
If you know which TPC	protects the tree(s), enter its title or number		
9. Authority Empl	loyee/Member		
With respect to the Ai (a) a member of staff (b) an elected membe (c) related to a membe (d) related to an electe	er of staff	wing:	
It is an important princi	iple of decision-making that the process is open and trans	sparent.	⊋Yes   No
For the purposes of thi informed observer, have the Local Planning Aut	is question, "related to" means related, by birth or otherwiving considered the facts, would conclude that there was thority.	ise, closely enough that a fair-minded and bias on the part of the decision-maker in	
Do any of the above st	atements apply?		
10. Trees - Declar	ration		
I/we hereby apply for p that, to the best of my/	planning permission/consent as described in this form and our knowledge, any facts stated are true and accurate an	d the accompanying plans/drawings and ac d any opinions given are the genuine opini	ditional information. I/we confirm ons of the person(s) giving them.
Date (cannot be pre- application)	20/05/2020		

# ARBORICULTURAL ASSESSMENT REPORT

For:	Client:	
	Insurer:	
Site:	Policyholder:	
	Risk Address:	9 Barnard Way, Bretton, Peterborough, PE3 9YZ
Refs:	PRI Ref:	134172
	Client Ref:	
l	Insurer Ref:	
l		

Arborist Name:	Richard Cope	Date:	03/07/2019
QC:	Thomas Peppiatt	Date:	04/07/2019
Reviewed:	Margaret MacQueen	Date:	15/05/2020



2 The Courtyards, Phoenix Square, Severalls Park, Wyncolls Road, Colchester, Essex, CO4 9PE

Tel.No: 01206 751626











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## 1.0 INTRODUCTION & BRIEF

- 1.1 Property Risk Inspection has been instructed behalf of the building insurers of the insured property. We have been advised that the insured property has suffered differential movement and damage that is considered to have been caused by trees growing adjacent to the property influencing soils beneath its foundations.
- 1.2 We have been instructed to undertake a survey of the vegetation growing adjacent to the insured property in order to provide our opinion as to whether, based on the available information, any of this vegetation is likely to be influencing soil moisture levels beneath the foundations of the property, and if so, to provide recommendations as to what tree management could be implemented to effectively prevent damage continuing.
- **1.3** The vegetation growing adjacent to the risk address has been surveyed from the ground. All distances are measured to the nearest point of the risk address unless otherwise stated.

#### 2.0 LIMITATIONS

- 2.1 Recommendations with respect to tree management are associated with the risk address as stated on the front cover of this report and following consultation with investigating engineers. The survey of trees and any other vegetation is associated with impacts on the risk address subject of this report. Matters of tree health, structural condition, and/or the safety of vegetation under third party control are specifically excluded. Third party land owners are strongly advised to seek their own professional advice as it relates to the health and stability of trees under their control.
- **2.2** Recommendations do not take account of any necessary permission (statutory or otherwise) that must be obtained before proceeding with any tree works.
- 2.3 Recommendations do not take account of any requirements for survey or mitigation relating to European or other protected species, e.g. bird nesting or bats. Land owners must obtain their own professional advice in respect of any protected species.

#### 3.0 DISCUSSION AND ANALYSIS

## 3.1 Soils, soil water and vegetation

All vegetation requires water to live, and this water is substantially accessed from the soil within which the plants' roots grow.

If the soil is classified as a clay soil, then it will hold very much more water than sands, gravels and loam soils. As plants abstract water from the clay soil, the soil volume will "shrink" and "swell" during the summer as water is first removed and then added by summer rainfall. In years in which rainfall during the summer is less than the total amount of water taken from the soil by plants, shrinkage will occur. This shrinkage may remove support from building foundations, leading to cracking in the fabric of the building.

#### 3.2 Vegetation management

The control of trees, shrubs, and climbers, by removal or pruning as appropriate, are proven techniques that can control total soil water loss thereby minimising soil shrinkage and allowing repairs to proceed.

If vegetation management works are carried out promptly, then repairs can usually proceed very quickly and the duration and distress associated with the disruption that tree related subsidence brings can be minimised.

#### 3.3 Third party liaison and statutory controls

Tree roots do not respect physical or property boundaries and can travel for many metres beyond the above ground "dripline" of the canopy of the vegetation.

The purpose of this report is to ascertain which vegetation is the most likely substantial and/or effective contributory cause of the damage witnessed to allow for liaison with third parties or with local administrative Councils as necessary.

#### 3.4 Evidential framework

The engineer has determined on a preliminary basis the damage to the property, its location and the likely mechanism of movement, and has concluded that the building failure is related to differential subsidence damage caused as a result of the action of vegetation.

Where a factual geotechnical report has been completed, this will describe the below ground foundation design, soil and geotechnical conditions, as well as any root identification where available.

## 4.0 CONCLUSIONS AND RECOMMENDATIONS

#### 4.1 Recommendations

On the basis of our findings, we have considered a practical vegetation management specification.

This specification will assist in reducing the impact of the adjacent vegetation on soil moisture levels, thereby potentially stabilising foundations of the affected area of the building.

Where felling has been proposed, this will be on the basis that the vegetation in question would not respond well to a severe reduction in leaf area that would inevitably lead to decay, the development of potential hazards, and an annual or other on-going management commitment and cost.

If pruning is recommended, the specification will be designed to allow continual ease of repruning with a reasonable prospect of a reduction in soil water use.

## 4.2 Recommended vegetation management to address the current subsidence:

Tree No:	Species	Works Required
T1	Oak	Fell and treat stump
T2	Oak	Fell and treat stump

## 5.0 STATUTORY CONTROLS

Peterborough City Council have confirmed that T1 is subject to a Tree Preservation Order but T2 is not. There are no Conservation Area controls.

# **6.0 APPENDIX 1: TREE TABLES**



Job ref: 134172

	Tree No	Common Name	Age Class	Condition	Height (m)	Crown Spread (m)	Stem diam. (mm)	Dist to bldg. (m)	Roots Implicated	Pruning history	Recommendation	Tree work constraints	Notes	Owner address	Owner
31	T1	Oak	Mature	Fair	12.3	8*	730	8.9	Υ	Subject to past management	Fell and treat stump			9 Barnard Way, Bretton, Peterborough, PE3 9YZ	PH
	T2	Oak	Mature	Fair	17.5	14*	1000*	14.9	Υ	Subject to past management	Fell and treat stump		Large limb had recently fallen onto the garden and caused damage to the neighbours' fence	Peterborough City Council	LA
	SG1	Mixed species group	Mature	Fair	1.8	0.5	10	1.8	N	Subject to recent management	No work required		Species include Rose, Dogwood, Maple and Honeysuckle	9 Barnard Way, Bretton, Peterborough, PE3 9YZ	PH
	TG1	Mixed species group	Mature	Fair	4.1	2.5	50	4.6	N	Subject to recent management	No work required		Species include Dogwood, Birch, Pittosporum, Fatsia and Mespilus.	11 Barnard Way, Bretton, Peterborough, PE3 9YZ	РЗР
	SG2	Mixed species group	Mature	Fair	2	1.0*	30	6.9	N	Subject to recent management	No work required		Species include Dogwood, Ivy, Euonymous, Rose,	9 Barnard Way, Bretton,	PH

Tree No	Common Name	Age Class	Condition	Height (m)	Crown Spread (m)	Stem diam. (mm)	Dist to bldg. (m)	Roots Implicated	Pruning history	Recommendation	Tree work constraints	Notes	Owner address	Owner
												Cotinus Cotoneaster,	Peterborough,	
												Photinia and Ceanothus	PE3 9YZ	
SG3	Mixed species group	Mature	Fair	1.8	1.0*	30*	9.9	N	Subject to recent management	No work required		Species include Hebe, Honeysuckle, Cypress and Weigela	9 Barnard Way, Bretton, Peterborough, PE3 9YZ	PH
TG2	Mixed species group	Mature	Fair	8.9	4*	200	15.3	N	No significant recent management	No work required		Species include Hazel, Cherry, Sycamore, Ash and Eucalyptus	Peterborough City Council	LA

<sup>\*</sup> Value is estimated

Job ref: 134172

# 7.0 APPENDIX 2: SITE PLAN



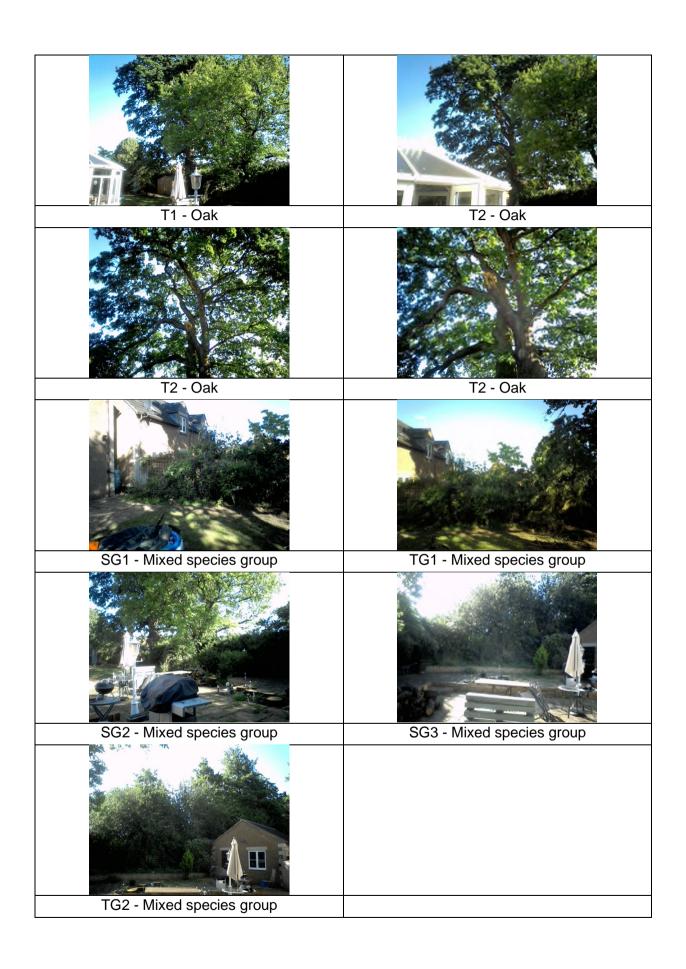
Location: 9 Barnard Way, Bretton, Peterborough, PE3 9YZ

Job Ref: 134172

Survey Date: 03/07/2019 - NTS

By Property Risk Inspection - Insurance Services
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# **8.0 APPENDIX 3: SITE PHOTOGRAPHS**





Property Risk Inspection
Insurance Services
2 The Courtyards
Phoenix Square
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01206 752539

insurance@propertyriskinspection.co.uk

www.propertyriskinspection.co.uk











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### RE: Re - TPO Tree Work Application - 20/00652/TRE 9 Barnard Way, Bretton & TPO 04-2006

### **Craig Thomas**

Tue 09/06/2020 13:05

To: Stephen Chesney-Beales

3 attachments (6 MB)

134172 2020-06-09 - Amended Arb report.pdf; 134172 - 2020-06-09 - PRI INS TPO Statement of Reasons for T1 Oak.pdf; 134172 - 2020-06-09 - PRI INS TPO Statement of Reasons for T2 Oak.pdf;

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Good Afternoon Stephen,

Thank you for your email and my apologies for the confusion here.

Please see attached our Amended Arb report and statement of reasons for both T1 and T2.

I can confirm this was a proofing error my end we are indeed intending to fell both T1 and T2 as per the recommendations in our Arb report and statement of reasons attached.

Again apologies for this error, if there is anything further you require please let me know.

Kind regards

Craig Thomas Administration Assistant

**Property Risk Inspection Limited (Insurance Services)** 

2 The Courtyards Phoenix Square Severalls Park Colchester CO4 9PE

4













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From: Stephen Chesney-Beales

Sent: 08 June 2020 13:03

To: Craig Thomas

Subject: Re: Re - TPO Tree Work Application - 20/00652/TRE 9 Barnard Way, Bretton & TPO 04-2006

Good Afternoon Craig

Thank you for e-mail, the contents of which have been noted.

Please can you check your response on the Statement of Reason for felling T.2 that the Arboricultural Report (not AIA), clearly links the T.2 Oak tree as the cause of damage to the risk address, and not T.1?

Please can you confirm by way of an updated Arb Report, why there has been a change to the Statement of Reason for the proposed works to T.1 from a fell to a reduction?

Also, to comply with BS3998:2010 guidance, please can the proposed reduction amount be expressed in terms of branch length removed and remaining tree height/spread in metres, as a '70% by vol canopy reduction', or a 70% reduction in crown volume, may be difficult for our residents to appreciate and understand, whereas, a reference to the length of branches in metres, to be removed and remaining tree height/spread is easier to understand and 'visualise'?

With regards to the proposal for 'biennial pruning to maintain 2019 dimension' to T.1? Please state what the dimensions are?

With regards to the ownership of T.2, at this time, I cannot confirm that T.2 is in the ownership of Peterborough City Council. This is something, I'm looking into presently, I'll update you once I have further information on this matter.

Kind regards

### **Stephen Chesney-Beales**

Tree Officer

Planning Services,

Place & Economy,

Sand Martin House,

Bittern Way,

Fletton Quays

Peterborough.

PE2 8TY

From: Craig Thomas

**Sent:** 08 June 2020 10:45

To: Stephen Chesney-Beales

Subject: RE: Re - TPO Tree Work Application - 20/00652/TRE 9 Barnard Way, Bretton & TPO 04-2006

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Good Morning Stephen,

Hope you are safe and well.

Thank you for your email and confirming that T2 is also protected by TPO - 06/00004/TPO.

Please find attached our updateD Arb report to confirm both T1 and T2 is subject to the TPO order. I have also attached our updated statement of reasons where the recommendation is to 70% by vol canopy reduction and biennial pruning to maintain 2019 dimension to the T1 Oak, and to fell and treat the T2 Oak.

When possible please could we have acknowledgement that you have received this response and are aware of the recommendation for both T1 and T2 as this will be a dual application as T1 is owned by our policy holder and T2 is owned by Peterborough Council.

If you require clarity on any of the above please don't hesitate to contact me.

Kind regards

Craig Thomas
Administration Assistant
Property Risk Inspection Limited (Insurance Services)

2 The Courtyards Phoenix Square Severalls Park Colchester CO4 9PE













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From: Stephen Chesney-Beales

Sent: 01 June 2020 11:39

**To:** Craig Thomas

Subject: Re - TPO Tree Work Application - 20/00652/TRE 9 Barnard Way, Bretton & TPO 04-2006

**Morning Craig** 

I hope this finds you well?

With regards to the above application, I apologise for the mix up on our part, but please can you agree to amend the application, to include T.2, as from my search of our records, it would appear that T.2 is also protected. Both T.1 (T.9 of the Order) and T.2 (T.8 of the Order) are protected by the TPO - 06/00004/TPO.

It appears both trees were protected in the past by the TPO - 70/00002/TPO, which was revoked, after development of the area. Our IT mapping system does not clearly identify both trees as being at or adjacent to the property in question, but after a site inspection and a search of our records, it would appear that these trees are the same trees.

If you wish to submit additional paperwork, please feel free, but I will amend the application on our system to show both trees being subject of the above application, once I hear back from you, that you are happy to amend the application.

If you wish to discuss the matter further, please do not hesitate to contact me.

Many thanks & kind regards

Cheers

Steve

43

### **Stephen Chesney-Beales**

Tree Officer

Planning Services,

Place & Economy,

Sand Martin House,

Bittern Way,

Fletton Quays

Peterborough.

PE2 8TY

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Policyholder:

**Subject Property Address:** 

9 Barnard Way Bretton Peterborough PE3 9YZ

### **INSURANCE CLAIM**

### **CONCERNING SUSPECTED SUBSIDENCE**

### **ENGINEERING APPRAISAL REPORT**

This report is prepared on behalf of claim for subsidence. It is not intended to cover any other aspect of structural inadequacy or building defect that may otherwise have been in existence at the time of inspection.

Date: 10/04/2019

Our Ref: 6871066

Continuation / 2 Our Ref: 6871066

### **INTRODUCTION**

The technical aspects of this claim are being overseen by our Building Consultant Andrew Knibbs BSc(Hon) BDMA Claims Prct, in accordance with our Project Managed Service.

### **DESCRIPTION OF BUILDING**

The subject property is a Detached house in a residential estate location on a plot that is level. The overall layout is recorded on our site plan.

The property also has a conservatory.

**DISCOVERY OF DAMAGE** 

The policyholder and homeowner, first discovered the damage in Summer 2018.

Over summer months, Policyholder has noticed some cracks appearing in the living room and the hallway and the policy holder wanted to check if it was structural damage or if it's just the plasterboard. Contacted insurers to inform of damage.

### NATURE AND EXTENT OF DAMAGE

**Description and Mechanism** 

The main area of damage is to the to the rear and left of the property and takes the form of tapering diagonal cracking.

This pattern of damage indicates a mechanism of downwards movement towards LHS.

Significance

The level of damage is moderate, and is classified as category 3 in accordance with BRE Digest 251 - Assessment of damage in low-rise buildings.

**Onset and Progression** 

has advised that damage first commenced in summer 2018.

We consider that the damage has occurred recently. It is likely that movement will be of a cyclical nature with cracks opening in the summer and closing in the winter.

### **SITE INVESTIGATIONS**

A site investigation has been arrangedarranged to confirm the cause of damage

Two trial pits were excavated at the property the first torear of the conservatory and revealed a concrete strip foundation sat at 850mm below external ground level on a brown fine to medium gravelly sandy silty clay. This was proved to a depth of 1.8m where the borehole was terminated as too hard to bore further. The second trial pit was located to the front left corner and revealed a conctete strip foundation 1.3m below external ground level a brown fine to medium gravelly sandy

Continuation / 3 Our Ref: 6871066

silty clay. This was proved to a depth of 3m where the borehole was terminated. Soil and root samples were obtained for analysis.

The soil was found to have a Plasticity Index in the range of 21 to 40 indicating a clay soil of medium volume change potential. The moisture content profile at depth indicates that mild desiccation is still present in the soil, particularly from the underside of the foundation.

Five sets of roots were obtained, extending to a depth of 2.3m and laboratory examination has found that all the roots originate from QUERCUS (Oak) or the related CASTANEA (Sweet Chestnut).

The drain at the the property was also surveyed and The CCTV survey revealed no defects to the drainage system which could be allowing the escape of water in the area of concern

The results of the ground investigation indicate that the clay soil has been affected by the drying action of the tree roots. Although the drain under the building is cracked, and may be leaking, there is no evidence that this

### **MONITORING**

We consider that level and crack width monitoring is required. This is to confirm the operation of a clay shrinkage subsidence mechanism. The monitoring has been installed and the base readings obtained this will continue on a 6 weekly basis.

### **CAUSE OF DAMAGE**

Based on the information detailed above, we are of the opinion that damage has occurred due to clay shrinkage subsidence. This has been caused by variations in the moisture content of the clay subsoil, resulting in volume changes, which in turn have affected the foundations.

### **RECOMMENDATIONS**

### Mitigation

We consider the damage will not progress if appropriate measures are taken to remove the cause. In this instance it is likely that vegetation for which the Local Authority is responsible is contributing toward the cause of damage.

### Repair

We have not yet decided on the final type of repair required, but have produced an outline of the most likely requirements. This involves undertaking superstructure strengthening, repairs and redecoration. This decision has been taken based on our knowledge and experience of dealing with similar claims. In addition the results of the Site Investigation, laboratory testing and monitoring have been taken into account.

Andrew Knibbs BSc(Hon) BDMA Claims Prct

Continuation / 4 Our Ref: 6871066

**Building Consultant** 

Mevish Rashid Claims Technician



# Review of information provided regarding the removal of a Mature Oak at 9 Barnards Way

Application reference 20/00652/TRE

Johnathan Harpham 03/11/2021

Having been approached by a resident concerned over the removal of the tree that was protected by TPO 06/00004 and subsequently met the individual, along with a number of other residents that are concerned over this matter, I have been asked to review the information provided and what is available online within the application and provide an overview/critique of the process that could be used in a meeting with Peterborough City Council to discuss and review this decision and its process.

I have not received and renumeration for this work and have attempted to remain impartial at all points.

### **Inaccuracies within the Arb Report**

Tree diameter is 1.64m at 1.5 m height not 1000mm as specified. While this may seem insignificant it does raise concerns over the accuracy of any further measurements taken or detail included.

Moisture demand and zone of influence has been left out of the report. In a situation where subsidence is theorized the moisture demand of all species would normally be included, along with the zone of influence of all species, especially those planted post construction. As an example, an Immature eucalyptus is not included within the report, it may possibly be a spelling error and recorded as Euonymous in SG2, but is clearly visible from the adjacent path. This species is of high moisture demand with a zone of influence of approximately 22.5 metres in diameter.

That the Oak is at fault. While a large tree is commonly blamed, and in some circumstances rightly so, it should be noted that this mature tree was present at the time of planning and construction and should have had a foundation designed to reflect its presence. It is clearly illustrated on the planning application no 98/01011/FUL drawing no 520/SB and Drawing no 520:1, which does not illustrate a conservatory. The Moisture demand is highly unlikely to have significantly increased during this time and given the species and age it is highly unlikely that the tree has vastly increased in size.

### **Condition C9**

It also seems that Condition C9 of the planning approval 98/01011/FUL has not been complied with the construction of the conservatory. Condition C9 clearly states "Notwithstanding the provisions of The Town & Country Planning (General Permitted Development) Order 1995 (or any order revoking and re-enacting that order with or without modification), No garage, carport or domestic enlargement or building or enclosure shall be constructed within the curtilage of plots 4 or 5 other than those expressly authorised by this permission. 9 Barnard way is recorded as plot 4 on the drawing no 520:1 and there is no recorded application for planning permission, or visible record with building control for the construction of this additional domestic enlargement, therefore it would appear that the structure has been erected illegally.

While this may not be the fault of the current homeowner, we would expect this issue to have been noticed when searches for the purchase of the property were carried out and the issue surrounding the building movement arisen.

It should also be noted that because of this condition, before any below ground repairs or replacement structures are erected a planning application must be made to satisfy this condition.

### <u>Subsidence</u>

While I am not a qualified structural engineer, I have consulted with an engineer regarding this matter and have also acted as an independent Arboricultural advisor for several disputed subsidence claims. As such I have reviewed the evidence from level monitoring and have an understanding of the figures presented.

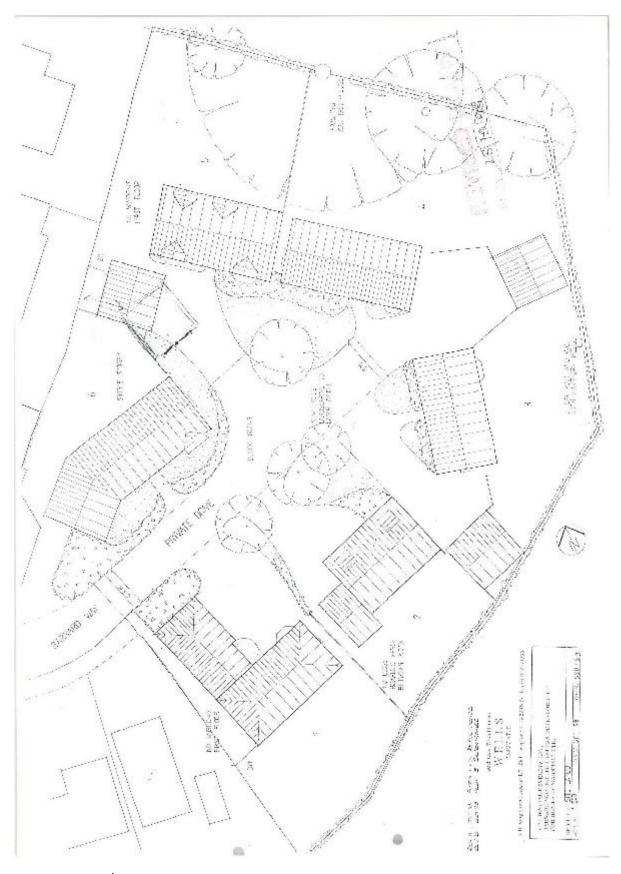
The level monitoring clearly indicates a **positive** figure across all 16 points, although these figures are greater to the points contained to the rear of the property. A positive figure usually indicates heave rather than subsidence. As clay soil rehydrates it expands, the volume of which is defined by the plasticity index. By plotting the dates with the highest increase in height against the rainfall obtained from the Cambridge NIAB weather station via the met office website, it would appear that these changes are in line with rehydration from rainfall in both the month prior and during the month of the level monitoring visit.

While there are differences in height increases from the front of the property to the rear, the rear being where there are the largest changes in height, these are greater on the conservatory than the actual house. This would be in line with the difference in loadings between foundations, the house foundation bearing more weight and being more substantial, rather than a difference in volume change potential, as indicated in the GSTL Liquid limit, Plastic Limit and Plasticity index report dated 05/03/2019 whereby TH1 test results indicates plasticity index of 23% at 0.85m depth and 21% at 1.35 while TH2 indicates at plasticity index of 40% at 1.3, 38% at 1.8, nothing recorded for 2.3 with 27% at 2.8

### **Conclusions**

With the points raised above I struggle to see the justification behind the removal of the protected tree and believe that before any decision is made further investigation into whether this is a case of subsidence or heave, as removal of the tree would result in further issues if heave were found to be the cause, should be carried out by an independent structural engineer.

I would also question as to to whether the justification for removal is sufficient, considering the conservatory is technically an illegal structure that would appear to not be compliant with building regs regarding foundation depth, and whether the Council would technically be liable for any issues with a structure that shouldn't be there.



Drawing no 520/SB

Page 7 of Arb report PRI ref 134172 illustrating inaccuracies in both mensuration and species ID

- Notwithstanding the provisions of the Town & Country Planning (General Permitted C9 Development) Order 1995 (or any Order revoking and re-enacting that Order with or without modification), no garage, carport or domestic enlargement or building or enclosure shall be constructed within the curtilage of plots 4 or 5 other than as those expressly authorised by this permission.
- R 9 In order that the Local Planning Authority can assess the impact of proposed future developments on protected traes.
- Q10 Notwithstanding the provisions of the Town & Country Planning (General Permitted Development) Order 1995 (or any Order revoking and re enacting that Order with or without modification), no windows shall be inserted at first floor level into the rear elevation of the building on plot 6 or into the west flank elevation of the buildings on plot 1 and plot 5, other than those shown in the approved drawings.
- R10 In the interests of residential amenity.
- No development shall take place until a scheme for the provision of fire hydrants has been submitted to and agreed in writing by the Local Planning Authority. The scheme shall be implemented in accordance with the approved details.
- In the interests of the safety of future residents.

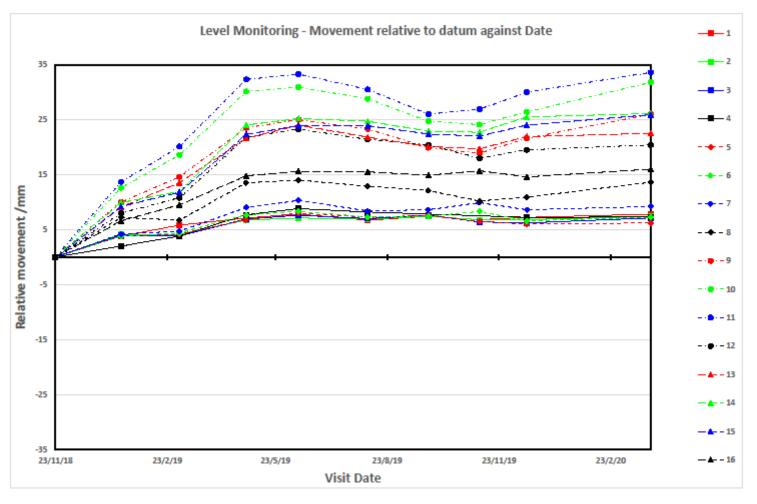
The notes on the following sheet should be read in conjunction with this decision notice:

Head of Planning Services

Ref: 98/01011/FUL

Page 4 Condition C9 of 98/01011/FUL







Tree No	Common Name	Age Class	Condition	Height (m)	Crown Spread (m)	Stem diam. (mm)	Dist to bidg. (m)	Roots Implicated	Pruning history	Recommendation	Tree work constraints	Notes	Owner address	Owner
Т1	Oak	Mature	Fair	12.3	8*	730	8.9	Υ	Subject to past management	Fell and treat stump			9 Barnard Way, Bretton, Peterborough, PE3 9YZ	РН
T2	Oak	Mature	Fair	17.5	14*	1000*	14.9	Υ	Subject to past management	Fell and treat stump		Large limb had recently fallen onto the garden and caused damage to the neighbours' fence	Peterborough City Council	LA
SG1	Mixed species group	Mature	Fair	1.8	0.5	10	1.8	N	Subject to recent management	No work required		Species include Rose, Dogwood, Maple and Honeysuckle	9 Barnard Way, Bretton, Peterborough, PE3 9YZ	РН
TG1	Mixed species group	Mature	Fair	4.1	2.5	50	4.6	N	Subject to recent management	No work required		Species include Dogwood, Birch, Pittosporum, Fatsia and Mespilus.	11 Barnard Way, Bretton, Peterborough, PE3 9YZ	P3P
SG2	Mixed species group	Mature	Fair	2	1.0*	30	6.9	N	Subject to recent management	No work required		Species include Dogwood, Ivy, Euonymous, Rose,	9 Barnard Way, Bretton,	PH

Property Risk Inspection - Insurance Services 2018

-7-

Job ref: 134172

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# Paul Harris BSc DIS (CEng MICE ACII FCILA Retired) Chartered Engineer

### **Comments on**

'Review of information provided regarding the removal of a

Mature Oak at 9 Barnards Way'

by Johnathan Harpham of Ethical Arboriculture dated 3 November 2021

for

### **Peterborough City Council**

These comments are specifically in relation to the report referred to above and are not intended to form a comprehensive or self-contained report on the matter.

### Summary

- Inaccuracies within the home owner's arboricultural report cited by Mr Harpham do not affect considerations of the cause of the damage, the Council's liability or the decision whether or not to fell the tree.
- Issues related to the absence of planning permission for the conservatory do not affect the Council's responsibilities, not least because the damage mainly affects the original house rather than the conservatory.
- Mr Harpham's concerns that the level monitoring indicates heave are unfounded. The level
  monitoring indicates a largely typical pattern of seasonal subsidence and recovery which
  would be expected from tree related subsidence of this type.
- It is possible that removal of the tree might cause some 'one off' heave damage to adjacent buildings. It is to be expected that the home owner's representatives have taken this into account. My understanding is that the Council has no legal liability for heave damage associated with tree removal.

### **Background**

- There has been structural damage (cracking) to 9 Barnard Way, which is a house. The damage mainly affects the house itself, although there is some additional movement of a conservatory.
- The damage is the result of subsidence which is in turn the result of drying shrinkage of the clay subsoil that lies beneath the foundations of the house.
- The drying shrinkage is the result of tree roots taking moisture from the soil during the growing season.
- Clay shrinks when it dries (in this case as a result of moisture extraction by trees during the growing season) and then swells again when it rehydrates out of the growing season. This results in a continuous annual cycle of subsidence of the house followed by recovery.

Page **1** of **5** 

Paul Harris BSc DIS (CEng MICE ACII FCILA Retired) Chartered Engineer
22 December 2021

- Oak tree roots have been found beneath the foundations, which confirms the involvement of oak trees
- The only oak trees in the vicinity are T1 (at the rear of the house in the private garden of 9 Barnard Way and subsequently felled) and T2 (a Council owned tree at the rear of the house which is the subject of this matter).
- T2 is very substantially larger than T1. The extent of its roots would be expected to encompass most, if not all, of the footprint of this house (and the adjacent one, 10 Barnard Way).
- So long as roots continue to extract moisture from beneath this house there will be continued seasonal subsidence with associated damage.
- The proposal is to fell T2 which will allow the moisture level of the soil beneath the foundations to stabilise which will, in turn, lead to stability of the house which will prevent future damage from this cause.
- A report from Mr Harpham has been put forward by a group opposed to the felling of the tree.

### **Comments on Mr Harpham's report**

Following the order of Mr Harpham's report:

### 1. Inaccuracies within the Arb Report

### 1.1. Tree diameter......

I have not measured the diameter of this tree. In fairness to PRI their measurement is marked with an asterisk which is referenced below the table as 'value is estimated'. The diameter of the tree is not relevant to either causation or liability.

### 1.2. Moisture demand and Zone of Influence........

Historically some arboriculturists listed the moisture demand category of the tree (high, moderate, low) and included a circular 'zone of influence' representing the hypothetical extent to which roots from the tree might influence soil moisture levels. These 'zones of influence' were usually calculated on the basis of figures contained in the guideline document 'NHBC Standards Chapter 4.2 Building near trees' produced by the National House Building Council (NHBC) — those figures take into account the moisture demand category of the tree.

This practice of including a 'zone of influence' has now largely been discontinued because:

- The zone of tree roots (and their consequent influence soil moisture levels) does not follow such a simplistic model. Root growth is relatively random and influenced by soils, moisture, topography, natural and built features and a myriad of other factors such that the zone of tree roots is highly unlikely to be represented by a circle.
- At any specific point near to a tree the extent of rooting and root influence (which are not necessarily the same thing) may be more, or less, than the hypothetical figure and the actual extent of influence is highly unpredictable.
- A theoretical 'zone of influence' takes no account of the depth of that influence which
  may be highly relevant where foundations are concerned only root influence below
  the foundation is relevant in matters of subsidence; root influence above the base of
  the foundation has no effect on the building.

Page **2** of **5** 

Paul Harris BSc DIS (CEng MICE ACII FCILA Retired) Chartered Engineer
22 December 2021

 The author of the NHBC guidelines, Dr Giles Biddle, has comprehensively demonstrated that whilst the guidelines are a useful method of reducing the risk of subsidence of buildings being constructed near to trees they are a very poor predictor of actual tree behaviour / influence.

### 1.3. ......an immature eucalyptus is not included within the report.....

This would appear to be a young tree of about 5 metres height in the rear garden of 10 Barnard Way.

- This tree is too small and too far away for its current influence to extend beneath the footprint of this house and as a result it is not involved in the current matter.
- The 'zone of influence' of 22.5 metres quoted, insofar as it might apply at all (see 1.2 above) relates to a fully mature tree whereas this tree is only young and small and the figure quoted therefore inappropriate.

### 1.4. That the Oak is at fault.

- The legal case of Loftus-Brigham v London Borough of Ealing heard by the Court of Appeal in 2003 specifically considered the relative influences of various trees in different ownerships. It identified the test for considering whether a particular tree was the cause of the damage as 'whether desiccation from the tree roots materially contributed to the damage'.
- Thus the oak tree is 'at fault' (with the issues of legal liability and requirement to remove it which flow from fault) if it materially contributed to the subsidence damage and the presence of any other contributory factor, such as the home owner's own oak tree T1, is irrelevant.
- Oak tree roots which are at least highly likely, if not certainly, from the oak tree T2 have been found beneath the foundations of the building. Since live oak tree roots must necessarily be extracting moisture from the soil (which is the cause of the subsidence) it follows that the Council's oak tree must be materially contributing to the subsidence damage, even if it is not the only influence, and therefore the Council's oak tree is 'at fault'. This is sufficient to engage the Council's responsibilities in the matter.

# 1.5. That the Oak is at fault......tree was present at the time of planning and construction and [the house] should have had a foundation designed to reflect its presence.

Agreed. However, this is not a defence to legal liability going forward or, therefore, the issue of whether the tree should be removed or not in order to prevent future damage to the building.

# 1.6. That the Oak is at fault......moisture demand is highly unlikely to have significantly increased ....... and ....... it is highly unlikely that the tree has vastly increased in size.

Agreed. However, as 1.5, this is not a defence to legal liability going forward. The oak tree is either a contributory factor (from which follows the issue of whether the tree should be removed or not to prevent future damage to the building) or it is not.

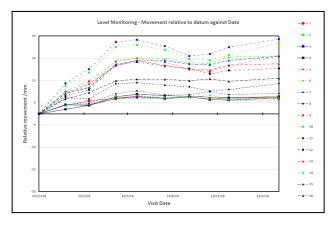
### 2. Condition C9

I note the position with regard to planning permission for the conservatory. However:

- The damage affects the house, not just the conservatory. Even leaving aside the
  conservatory the issue of whether or not the oak tree should be removed remains because,
  whatever arguments might or might not exist in relation to the conservatory, they do not
  apply to the house.
- As 1.5 the fact that the conservatory post-dates the tree is not a defence to legal liability going forward.
- The absence of planning permission is not a defence to legal liability going forward.

# 3. Subsidence. The level monitoring clearly indicates a <u>positive</u> figure across all 16 points........... A positive figure usually indicates heave rather than subsidence.

- Heave is where a previously stable building (or part of the building) starts rising as a result of rehydration and swelling of ground that was previously <u>permanently</u> drier than the norm. Heave is almost always associated with tree removal. Recovery is where a building that has previously subsided as a result of seasonal drying shrinkage of a clay subsoil moves back upwards towards its pre-subsidence position as the soil rehydrates and swells again. Heave occurs once (although it may take some time) whereas recovery (and the associated subsidence) will generally occur on an annual cycle until the cause of the cyclical movement is eliminated.
- It is correct that the level monitoring clearly indicates positive figures (ie above zero).
- However, whether the figures are positive or negative depends upon when, and at what stage of the ground moisture cycle, the monitoring started and is not in itself relevant to interpreting the monitoring. For example if the monitoring had started in May 2019 then the first readings thereafter would have been negative.



- Positive readings do not indicate heave (or recovery). What matters is the pattern of movement. Heave (or recovery) would be indicated by rising figures (whether positive or negative); subsidence is indicated by falling figures (whether positive or negative). The pattern of movement on the graph exactly mirrors the actual physical movement of the building.
- The allegation here is that the tree (on its own or in combination with others) has caused drying shrinkage of the clay subsoil. Because of prevailing weather (Mr Harpham has referred to rainfall records) the clay tends to dry, and shrink, in the summer and then rehydrate and swell again in the winter. We would expect that to be reflected in the pattern of movement of the house (reflected in turn in the monitoring). Thus we would expect the house to subside in the summer and to rise again in the winter. That is exactly the pattern of movement displayed in this monitoring.

- This pattern of subsidence in the summer and recovery in the winter is unique to drying shrinkage related subsidence (most commonly the result of moisture extraction by the roots of trees). The fact that it occurs here is proof that the cause of the subsidence is drying shrinkage of the clay soil. Since the drying shrinkage is virtually certainly the result of moisture extraction by the roots of trees it follows that the subsidence is connected with trees which, in this case, is the Council's oak tree, on its own or in combination with other trees.
- Mr Harpham has noted that the amount of movement is greater at the rear (nearer the trees) than at the front. The movement of the conservatory is greater than of the house; that is not surprising since the conservatory is nearer to the oak tree.

### 4. Conclusions.

# 4.1. ...... removal of the tree would result in further issues if heave were found to be the cause.

- Heave is not the cause of this damage. However, Mr Harpham is correct in saying that removal of the oak tree might cause heave damage (separate from the subsidence damage, or any normal recovery associated with it). Any such damage would occur over a relatively short period of time following tree removal and, unlike the continuous movement associated with the presence of the tree, would then cease, allowing the building to be repaired. Heave damage is uncommon.
- My understanding is that the Council is not liable for any heave damage to property
  associated with tree removal (and particularly in respect of any heave damage to 9
  Barnard Way where the owner's representatives have requested that removal and
  must be fully cognisant with any risk of heave damage) and it does not change the
  Council's liability position in relation to any subsidence caused by the tree.

# 4.2. .....whether the Council would technically be liable for any issues with a structure that shouldn't be there.

• This does not affect the Council's position. See point 2 above.

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