

CAMBRIDGE CITY COUNCIL

REPORT OF: Streets and Open Space – Asset Manager
TO: Planning Committee – 4th March 2015
WARDS: Arbury

OBJECTION AND REPRESENTATIONS TO TREE WORKS PROPOSED TO FIVE LONDON PLANE TREES GROWING ON ALEXANDRA GARDENS

1.0 INTRODUCTION – DECISION MAKING

- 1.1 Members are invited to comment on proposed tree works to London plane trees growing on Alexandra Gardens because objections and representations have been received to the works. The Council's Tree Works Protocol requires these objections and representations to be referred to Planning Committee to make a recommendation on the proposed tree works.
- 1.2 After the matter has been considered by Members of the Planning Committee it will be referred to the Director of Environment for a decision under delegated powers. The Director is required to consult the relevant Executive Councillor and, if it is agreed that Planning Committee's recommendation shall be followed, the decision will be made by the Director.
- 1.3 If the Director, having consulted the relevant Executive Councillor, is of the opinion the decision may be contrary to the views of the Planning Committee, the formal decision shall be made by the appropriate Executive Councillor at a Scrutiny Committee meeting and subject to the pre-scrutiny process
- 1.4 The City Council is currently considering a number of insurance claims relating to property damage caused by Council owned trees on Alexandra Gardens along the boundary lines of both Alpha Road and Carlyle Road (See Appendix 1). This report intentionally does not identify specific properties to protect the privacy of claimants.

- 1.5 The implicated trees are London Planes, which are a species that has been widely planted in cities and towns across the UK, because they thrive in urban environments, being resistant to drought, amenable to regular pruning and unaffected by impacted soil.
- 1.6 This report sets out the issues for the Council and makes recommendations based on the following objectives:
- a) Protecting the amenity and asset value and associated benefits gained from the trees;
 - b) The Council's legal duties to avoid damaging the homes of nearby residents; and
 - c) The Council's potential liability to pay damages and legal fees
- 1.7 The trees grow within a conservation area. However, because the trees grow on land managed by the City Council, the Council is exempt from the statutory notification¹ procedure.
- 1.8 The Planning Committee would ordinarily consider objections and representations to tree works in conservation areas and tree preservation order applications. As the Council has a crucial role in maximising the benefits trees give the City, both through exercising its statutory powers and by encouraging and supporting tree management the Tree Works Protocol replicates in part the statutory tree works application process.
- 1.9 A statutory tree works application that prompts objections, which cannot be resolved by Tree Officers', would ordinarily be referred to Planning Committee for determination.
- 1.10 This report sets out the tree work proposed and details the objections and representations received. The Planning Committee are asked to make a recommendation on the proposed tree works.
- 1.11 The Planning Committee is not being asked to make a policy decision in relation to the trees, but to make a decision as the Planning Committee, in the same way that it would for trees in other ownership. This report follows the same format used in determining statutory tree works in conservation areas and Tree Preservation Order tree works applications.

¹ The Town and Country Planning (Tree Preservation)(England) Regulations 2012 paragraph 12

2.0 RECOMMENDATIONS

2.1 To advise the Executive Councillor for City Centre and Public Places that the Planning Committee supports the proposal to:-

a) Reduce by ~30-40% by branch length (which equates to approximately ~70% by volume) trees T17, T21, T22, T23, & T24 , and maintain bi-annually at their reduced volume; and that cyclical pruning work is carried out to trees T18, T19, T20 and T27 to retain these trees at their current dimension; and

b) Instruct Officers' to consider the adoption of the Joint Mitigation Protocol as policy in the forthcoming Tree Strategy.

3.0 BACKGROUND

3.1 The trees are mature London plane trees planted in 1905 when Alexandra Gardens were laid out. The surrounding streets of terraced properties had been built in the late nineteenth century. The old brickworks had closed in 1887 and it was decided to convert the site into an amenity space. London plane trees were planted in a line on the boundary fronting Carlyle Road and in an avenue following the rear boundaries of properties on Alpha Road. Ten trees front Carlyle Road and eight face Alpha Road with an additional three around the play area. They have matured to provide an effective and impressive boundary feature to the open space. They separate the tranquillity of the Gardens from the noise and activity of Carlyle Street busy with commuters using the designated cycle route into the city. From within the space the continuous line of trees provides an effective screen from the outside world and ensures the Gardens are a secluded place in which to relax. As such the trees are a significant public resource.

3.2 All the trees appear to be in good health; dead wood is removed routinely.

3.3 The trees measure circa 20-25m in height and have a crown radius of circa 8-10m. As individual plants each tree is a fine specimen, collectively they create an impressive and statuesque feature. They are best viewed from within the park, but are a significant amenity to Alpha Road and can be viewed from the streets linking Alpha Road, and Victoria and Chesterton Roads and can be glimpsed from Victoria Road along Holland Street. Their upper canopies are visible over the rooftops from the surrounding streets.

- 3.4 A location plan with all trees shown is available at Appendix 1.
- 3.5 The surrounding nineteenth century streets are part of a designated conservation area, and they are attractive and have a character of their own. The decision to lay out the Gardens was typical of Victorian philosophy at that time and so the trees are an essential part of the history and thence the character of the local area.
- 3.6 The request to undertake these tree works has been made by insurers acting for the owners of nearby properties that have suffered structural damage. It has been evidenced that the trees are an effective cause of damage and the works are required to prevent further structural damage. (see Appendix 2 & 3 for a history of each claim).

4.0 MANAGEMENT OPTIONS CONSIDERED

- 4.1 In February 2014 a Member/Officer working group was set up to investigate and review the most appropriate action to limit liability to the Council, whilst being mindful of residents previous concerns (relating to a claim in 2010/11) and the best way of maintaining the amenity and asset value of the trees. The following management options were considered at subsequent meetings:-
- 4.2
- a) Retain the trees without any responsive major pruning or felling – This was deemed as high risk of the Council being found liable from any associated subsidence damage with potential damages payable of £711,000 +, and more if new claims arose.
 - b) Major prune all or selected trees – Third party expert opinion recommended ~30% reductions (by branch length) which equates to approximately 70% by volume. It was recognised that this would have a significant negative impact on the amenity of the trees but would reduce the risk of further claims whilst retaining the trees.
 - c) Selective removal of individual trees where implicated in damage – It was accepted that tree avenue management approaches would need to be considered e.g. replace gaps; plant new avenue adjacent the old avenue; remove and replant; managed decline. Notwithstanding any decision about the retention of these trees, early removal to mitigate those trees implicated in subsidence could be seen as a valid reason to bring forward a ‘managed decline’ approach if desirable.
 - d) The introduction of Root Barriers at Carlyle Road – Whilst

root barriers are now an established method for dealing with subsidence issues it is not fool proof due to the many utility access and egress points and the cost of implementing may outweigh the claims received. A root barrier is currently not considered feasible by Officers on Alpha Road as the costs are deemed prohibitive due to the complexities of working in a confined space with no easy access.

e) Hybrid approach - Elements of the four above approaches could be combined into a single compromise option.

5.0 SEEKING EXPERT OPINION

5.1 In November 2014, Julian Forbes Laird ²(JFL) was commissioned to review the Member/ Officer working group recommended actions all information supplied to support current claims (on Alpha Road only) and make recommendations on whether or not each recommended action was appropriate; and if not, what alternative action should be considered. JFL had been endorsed by local residents to give advice on a previous Alexandra Gardens claim case. JFL has experience in working as an expert witness in subsidence claims similar to that experienced by Cambridge City Council.

5.2 As part of their commission, JFL undertook a CAVAT³ (Capital Asset Valuation for Amenity Trees) assessment of the trees along Alpha Road. The total asset value of the eleven plane trees, (to which the Member/ Officer working group recommended management action) is just over £1.7million, with a mean value per tree of £155,000 (the range being £61,000- £242,000). The CAVAT score is available as a background document to this report.

5.3 It was recommended in the JFL report that insurers for the affected properties should be provided with the expert advice note from JFL, accompanied by a request for the further information relating to their claim. This was completed.

5.4 JFL recommended that insurers for Claim G should be asked to provide details of the cost of the underpinning works that would be

² Julian Forbes-Laird (JFL) is a Chartered Arboriculturist, a Chartered Surveyor, an Arboricultural Association Registered Consultant and an Expert Witness to High Court level

³ 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.

required in the event that the two nearest trees are not subject to pruning or removal. This would enable the Council to compare the cost of funding structural augmentation with the cost to asset value of tree work. The underpinning works have subsequently been completed.

- 5.5 A table detailing all claims is included at Appendix 3 with the City Council's insurers' response to the JFL requests as set out at 5.3 & 5.4 of this report.
- 5.6 JFL recommended that *'a strategic decision should be taken generally as to whether to retain the trees substantially intact (notwithstanding any necessary tree maintenance works), and fund underpinning works to those adjacent properties offering a sound evidential case, or to implement the significant crown reduction and future management...'* This issue is addressed in the conclusions section of this report.
- 5.7 Attention is drawn to the fact that JFL did not recommend felling. JFL argued that *'whilst this would deliver certainty of outcome, in my judgment the value of the trees is sufficient to exclude this is a reasonable and proportionate response, given that pruning and onward crown size regulation, or alternatively underpinning, should provide adequate options for loss control'*
- 5.8 Advice and evidence received from the City Council's insurers indicates that on the balance of probabilities it is their view that the trees are an effective cause to the damage to properties on Alpha Road and therefore tree works should be carried out to enable insurers to be able to defend the Council against current claims for properties where engineering solutions have not yet commenced and any new claims.
- 5.9 Based on JFL's CAVAT assessment at 5.2, the recommended pruning management actions (if all five trees are pruned) will reduce the value of the trees.
- a) The total capital asset of the planes would fall to £328,012: a reduction of just under £500,000;
 - b) The mean value for the trees reduces by ca. £92,000 to just under £63,000, and the value range becomes £37,000-£91,000; and
 - c) In addition, the trees will require the introduction of ongoing regular pruning in the order of £5000 bi-annually.

5.10 The JFL report final recommendation to the City Council was that it adopts the Joint Mitigation Protocol⁴. Officers are agreed that this protocol will greatly streamline the evidence gathering and assessment process. It would also lead to more effective decision-making in terms of whether to fell, prune or underpin. It is recommended that during the drafting of the forthcoming Tree Strategy, Officers' considers the adoption of the Joint Mitigation Protocol as policy.

6.0 CONSULTING ON OPTIONS

6.1 Based on JFL recommendations and our Insurer's subsequent response and advice, we recommended the following management actions to the trees at Alexandra Gardens:

- a) It was recommended that no work is needed to be completed to trees T52, T53 or T55. (The underpinning works have now started on Claim C and these are anticipated to be completed by the end of March 2015 therefore the opportunity to consider a root barrier to reduce the value of this claim has passed).
- b) It was recommended that significant crown reduction of 30-40% reductions (by branch length) which equates to approximately 70% by volume) is completed to trees T17, T21, T22, T23, & T24, and bi-annual pruning works to retain them at their reduced dimensions; and that pruning work is carried out to trees T18, T19, T20 and T27 to retain these trees at their current size, the need for pruning will be assessed on a bi-annual basis.

7.0 CONSULTATION PROCESS

7.1 The consultation plan followed the process prescribed in the Council's Tree Work Protocol which is broadly comparable with the statutory tree works process. The consultation period was extended from 10 days to 28 days at the request of the Executive Councillor.

- Consult Ward Members 6th January 2015;
- Commencement of public consultation on 12th January 2015;
- The consultation period was 28 working days and closed on the 18th February 2015;

⁴ The Joint Mitigation Protocol is an agreed method of subsidence claims management where trees are implicated as being the cause of building movement. It seeks to establish best practice in the processing and investigation of tree root induced building damage, benchmarking time scales for responses and standards of evidence

- 10 days allowed comment and objections to be considered;
- Report for Planning Committee 4th March 2015;
- If the Executive Councillor agrees with the Planning Committee recommendations, this then can lead to a delegated decision;
- If the Executive Councillor disagrees with the Planning Committee recommendations, this would then become a Community Services Scrutiny Committee Agenda item on 19th March 2015

7.2 A further public drop in meeting was held at St Luke's Church on the 16th February from 3.30pm til 7.30pm, and this was intended to provide further information and answer further questions prior to the closing of the consultation period.

7.3 Officers attended Alexandra Gardens on the 18th February to answer final questions and accept comments and objections.

8.0 OBJECTIONS REPRESENTATIONS POINTS OF CONCERN

8.1 The following paragraphs are a summary of objections, representations and points of concern:-

- We received 84 written objections to the consultation from 89 respondents; 4 responses arrived after the closing date and these have been included.
- The public drop in session was attended by 49 members of the public. Ward Councillors, the County Councillor and the Executive Councillor for City Centre and Public Places also attended for the duration;
- 3 people attended the site based visit on the 18th February; and
- A detailed report on the consultation is available as a background paper to this report.

8.2 A summary of frequently used or repeated questions with Officer reply follows:-

Q1 Why did you protect trees five years ago?

In 2010/11 the Council sought expert legal opinion and accepted liability for subsidence in the single property making a claim and paid for that property to be underpinned. There has since been one other claim that has been settled, and 5 properties that have indicated that they are likely to pursue claims against the Council.

Q2 The trees where proven not be the cause in 2010/11, what is different now?

Local residents invested a significant amount of time in making the case that the trees were not the main cause of the subsidence, and the Council also asked for three separate opinions, our legal advisers said that we were likely to lose any case against the householders' insurance because we could not dispute four key points:

- a) Tree roots intrude - This was evidenced by samples taken from bore holes around the affected property.
- b) The tree roots caused damage - The damage would be examined in conjunction with the findings of the samples by experts. There may be arguments that at least some of the cracking could be caused due to clay soil or other factors. Case law states that the tree roots need only be a "substantial and effective" cause of the damage to the property to establish legal liability.
- c) The damage was reasonably foreseeable - Damage by tree roots was reasonably foreseeable in general terms, a local authority will be deemed to have the necessary expertise to appreciate the risk of subsidence caused by tree roots in an area where the ground is susceptible to subsidence.
- d) Were all reasonable practicable steps taken to minimise or reduce the cause of the damage? The issue of what constitutes reasonable steps varies according to the circumstances, and will also relate to how foreseeable it was that the tree would cause damage.

Q3 Has it been proved that the roots are causing the damage?

Insurers need to show that on the balance of probability the roots are an effective cause of the subsidence, and our legal advisers have told us that this is the case in several of the claims against the Council.

To demonstrate the balance of probability claimants will provide to our insurers for their consideration:-

- a) An Engineers report that details the location, nature and extent of the damage and the BRE (Buildings Research

Establishment)⁵Categories. The report should also have a site plan with areas of damage and drainage runs. The engineer should also provide an opinion as to causation.

b) An Arboriculturist's report. Detailing all the vegetation in the area and whether it is deemed to be within a zone of influence of the property and which trees are deemed to be affecting the property. The report should also detail what action is recommended with regards to the offending vegetation.

c) Root identification. If roots are taken from a trial pit or borehole they are sent for analysis to see what species of vegetation they belong to. This way we can ascertain whether they are from a Council tree. The location of the roots is also important; if they are not underneath foundation depth they cannot be affecting the soils that support the foundation.

d) Soil data needs to be provided following the excavation of a trial pit and bore hole, to a depth of 3m where practicable. It should also include soil type, plasticity and liquid limits and whether it is desiccated. The foundation depth and type should also be detailed.

e) Monitoring results. Monitoring movement is important to understanding what is happening to a building. Shrinkable soils, particularly clay, will expand and contract as a result of moisture variations through the seasons; this can be exacerbated by the presence of roots. If the soil contracts too much, the foundations which sit upon the soil move and cracking can occur.

f) Crack width monitoring is requested for a minimum period of 1 year, with readings taken monthly. This measures the opening and closing of the cracks to see if this occurs in line with the growing season of vegetation. Ideally level monitoring should also be provided, this measures fixed horizontal points on a building to assess whether they are moving and if so whether this is upwards (heave) or downwards (subsidence)

g) Drain tests. These are required to see whether the drains are sound. If leaks are occurring it is possible that they are causing the soil to expand thus causing heave. Alternatively if the soils have a granular element the water can wash away the fine grains and create an unstable pocket

⁵ The Building Research Establishment is a former UK government establishment that carries out research, consultancy and testing for the construction and built environment sectors

which can affect the soils ability to support foundations and cause crack damage.

Information and documentation is also requested from the Council:

- a) Inspection history, for the offending vegetation. If there is none then this can make a defence difficult as the Council will be unable to determine whether their trees present a risk to properties and whether any action should be taken.
- b) Maintenance history, for the offending vegetation. If no maintenance has been carried out, despite a foreseeable risk of damage, then this weakens any potential defence.
- c) Tree policy. A copy of the Councils policy and regime with regards to the trees under their control is required so that we may ascertain whether this has been followed. If not then the Council may weaken any defence that they have with regards to reasonable precautions being taken.
- d) Claims history. Details of previous claims or notifications are required. If the Council were on notice of previous claims then further claims could be deemed to be foreseeable if the Council did nothing about managing the risk.

8.3 The Surveyor supports the Loss Adjuster⁶, they will attend site and provide a second opinion as to causation following inspection of the crack damage and vegetation and following review of the Claimants evidence. The Surveyor will advise on the associated cost of the repairs so that this can be cross referenced against the amount claimed.

8.4 If a Council regularly maintain their trees, in line with a set tree policy and inspection regime it offers Insurers the opportunity to defend such claims. The absence of any maintenance opens Insurers and the Council open to expensive claims and potential underpinning costs which can range from £40,000 to £100,000.

Q4 The subsidence is because of the underlying brick pits/ the houses are constructed on sloping ground.

Because other properties in the same area appear to suffer

⁶ A Loss adjuster will verify that coverage applies through an insurance policy, investigate liability for the damages caused, and make compensation to the claimant based on their physical property damage

cracking which is not due to tree root subsidence this does not mean that the damage to the current claimants properties is not of a kind which is characteristic of, and due to, tree root subsidence.

Q5 Can't the council undertake an independent survey?

We've undertaken two - the most recent of which was by Julian Forbes Laird and this advice was considered when preparing recommendations for the consultation and to the Planning Committee.

The Councils insurer has also appointed a Loss Adjuster' whose job it is to analyse all this information to ascertain whether, on the balance of probabilities, the Council vegetation has had a causative affect and whether a liability is likely to attach. The Loss Adjuster can then either repudiate the claim, or admit liability, either on a partial or full basis.

Q6 Won't the trees be damaged by this harsh pruning?

Yes, this kind of pruning is designed to drastically limit root growth and moisture uptake to limit the trees' impact on the subsidence affecting the properties concerned.

Q7 Can't we prune them less harshly?

Pruning the five trees concerned less harshly than is currently suggested would likely fail to mitigate any of our liability at all.

Pruning does encourage more active growth but only as a direct genetic response to regain the same level of transpiration possible before the pruning. To do this leaves will use a higher percentage of the available stomata, will direct energy towards producing more leaves rather than extension growth and will produce larger leaves capable of increased levels of transpiration. It is for this reason that minor pruning does not work in the long term.

Q8 Aren't trees more important than the needs of insurance companies?

The courts would to a certain extent include the importance of trees as an amenity as part of their judgements. The CAVAT scores for the five trees would be considered in any

court judgement. However the judge would also consider the duty of the council to prevent damage to people's houses, and this would affect our financial liability if we fail to prevent such damage.

Q9 What happens if we don't do this heavy pruning?

We may remain liable for the full cost of any underpinning undertaken in neighbouring properties.

The Council could also face an injunction against it. If it is found that the council was aware of the nuisance, and that the threat of damage was both proximate and likely, the council could be forced to remove the trees entirely.

The Council's insurers would not meet the expenses incurred because the costs do not fall within the scope of the insurance policy; and they would not meet any future claims against these five trees because the trees are known to have caused structural damage.

Q10 Why hasn't there been a longer consultation? Why can't we have longer now to talk about the options?

The consultation was extended from the ten days we normally have under the Tree Works Protocol to 28 days as we expected a significant response.

Our last independent report was delivered in late November. This was undertaken by Julian Forbes Laird, who the Alexandra Gardens Trees Group engaged in 2010; we are now fairly certain that we will get no more independent consultants whose conclusions substantially differ from the reports that we have now commissioned.

We did not want to open the consultation over Christmas, as many people would have been away, so we delayed opening it until mid-January.

To delay past this point would mean that we could not undertake any mitigating works (heavy pruning) until 2016. This would leave the Council liable for all the outstanding claims plus any new ones that come in over the summer, and we have already exceeded the money set aside for this.

Q11 10 days to resolve objections is inadequate

The ten days in the consultation plan is intended to allow Officers to consider and respond to objections, feedback and points received. It is not intended that objections will resolved.

This ten day period is broadly comparable with the statutory tree works process for Tree Preservation Orders

Q12 We need a public meeting to see the detailed evidence

Extracts from the latest report by Julian Forbes Laird including a summary of the critique of the claims, the amenity value using CAVAT and some of his recommendations where included in the Officer report that supporting the consultation.

The JFL report was a point in time and his recommendation relate to specific claims and requests for further information. The consultation report also summarised the insurers/ loss adjusters position having sought the further information.

A redacted copy of the JFL report made publicly available may compromise the Council in settling any claim.

It would not be possible to discuss individual cases in a public meeting because the release of this detailed information that may prejudice future legal processes.

The public drop in session was considered as an alternative and was attended by 49 members of the public. Ward Councillor, the County Councillor and the Executive Councillor for City Centre and Public Places also attended for the duration.

The public drop-in meeting was the chosen forum to provide further information and answer further questions prior to the closing of the consultation period.

It has not been possible within the time available to involve a legal barrister in any public meeting but a clear legal explanation is included in the replies to respondents.

9.0 CONSIDERATIONS

9.1 Officers are content with expert and third party opinion that the trees are causing structural damage to neighbouring property.

9.2 Option A - the trees can be pruned.

This may lead to some heave of the underlying ground as the clay recovers. The period over which this recovery takes place can be extensive and is weather dependent. The claimants' buildings would be monitored until such time as they become sufficiently stable for any remedial works to be limited to the superstructure only.

Cost implications:

- The insurers could be expected to seek to reduce the costs of any remedial works.
- The cost of tree works, approximately £7500 for crown reduction.
- Loss of amenity value per tree has been calculated using CAVAT as:-
 - T17 - £67,231
 - T21 - £118,383
 - T22 - £46,922
 - T23 - £114,387
 - T24 - £151,676
 - Total £498,599.
- A loss of collective amenity value for which no calculation is available.
- We have been advised the trees have been identified as posing a "high risk" and the Council has a Duty of Care to manage these and other adjacent trees responsibly to prevent damage to property.
- The Council's insurers may require all the London plane trees on Alexandra Gardens that could influence a neighbouring property to be pruned to minimise the risk of movement to a property.
- Regular tree maintenance on this scale could cost £1000 per tree every two years.

Insurance implications

- The Council's cover would remain intact and unaffected.

9.2 Option B - the five trees are retained/not reduced, and the properties are underpinned to prevent further structural damage.

Cost implications:

- The claimants insurers can be expected to seek to recover the costs of underpinning, estimated at circa £60,000 - £80,000 per property. There are currently 6 claims and the potential for a further 13 on the Alpha Road boundary.
- The occupants would be re-housed whilst the building works were being undertaken. The claimant's insurers could be expected to seek to recover the £20,000 relocation costs for each claim.
- Any underpinning would require a party wall agreement with neighbours and it is possible that the neighbour's insurer may also lodge a claim.
- We have been advised the trees have been identified as posing a "high risk" and the Council has a Duty of Care to manage these and other adjacent trees responsibly to prevent damage to property. We will be liable for costs if we do not mitigate the damage.
- The Council's insurers may require all the London plane trees on Alexandra Gardens that could influence a neighbouring property to be managed to minimise the risk of movement to a property.
- The claimants may seek an injunction for the removal of the trees.
- We anticipate future claims and there is no way of knowing what the upper limit of this could be, but the Council would probably have to set aside between £500,000 and £1.5 million to ensure we had enough to cover any potential liability.

Insurance implications:

- The Council's insurers would not meet the expenses incurred because the costs do not fall within the scope of the insurance policy.
- The Council's insurers would not meet any future claims against these three trees because the trees are known to have caused structural damage.

10. CONCLUSIONS

10.1 It has been evidenced, on the balance of probabilities, a third party and expert advice confirms, that Council the trees are an effective cause to structural damage to the properties on Carlyle and Alpha Road.

- 10.2 Tree works must be undertaken in order:-
- To fulfil the Council's responsibility to take steps to prevent or mitigate damage to the neighbouring properties and address its potential legal liability if it fails to do so;
 - to ensure insurance cover in respect of future claims;
 - to manage the Council's financial resources responsibly;
 - To consider the current claims and minimise the difficulties experienced by the owners.
- 10.3 If tree works are to be undertaken Members should consider the option A set out in section 9 of this report.
- 10.4 The work requires five trees to be crown reduced by ~70% in volume. This presents a considerable reduction of a tree that measures circa 20-25m in height and has a crown radius of circa 8-10m. In order to achieve these reductions major branches will be cut close to their union with the trunk creating sizeable wounds, far in excess of good arboricultural practice and standards. The re-growth will appear unnatural in outline and will comprise of long, leggy shoots with larger than normal size leaves. These new shoots will require regular management; it is likely that they will be 50% thinned and 50% reduced every two years.
- 10.5 This surgery cannot be regarded as pollarding. Pollarding should be initiated when the tree is a young plant and repeated regularly. In this way the tree adapts to the procedure and only small wounds are made. The tree becomes robust to these pruning wounds and is more resistant to disease and decay. An example of such management is the lime avenue to Mill Road Cemetery which has been pollarded annually since it was planted.
- 10.6 The Alexandra Gardens trees will look like those on Maids Causeway. These trees are pruned on a bi-annual basis to prevent structural damage to properties on Maids Causeway under an arrangement for the County Council. The height and spread of these trees is reduced, but they still retain their overall presence in the street. Their appearance is not as attractive as a tree with a natural outline but some find this contained, managed, knobbly growth curious and not displeasing. Certainly, it is preferable to have trees of this size and mass on the street rather than none at all.

10.7 Whilst London plane generally responds well to pruning, the size of the wounds that will be made on these Alexandra Gardens trees will make them vulnerable to disease and decay. A wound of this size cannot callous over and repeated fresh wounding as re-growth is removed will expose the timber to infection even further.

11 RECOMMENDATIONS

11.1 Planning Committee often consider Tree Preservation Order or Conservation Area notification tree works applications, and where there is strong or compelling evidence that the trees are cause of damage, the Officer recommendation would be not to object⁷ to the works. If the Council chose to object to the works, liability would attach to the Council. A recent decision similar in nature by South Cambridgeshire District Council is available as a background paper⁸.

11.2 Felling of the trees would deliver certainty of outcome, however the amenity value of the trees is sufficient to exclude this is a reasonable and proportionate response, given that pruning and onward crown size regulation should provide adequate options for financial loss control.

11.3 If the Planning Committee are minded not to recommend the proposed tree works then it is considered the Council's potential liability to the affected property owner for compensation is disproportionate to the amenity value afforded by the retention of the trees.

11.4 If the Planning Committee are minded not to recommend the proposed tree works and after any subsequent action the work is then approved, the affected property owner and the Council will both have unnecessarily incurred additional cost and delay in arriving at the same position, with attendant lack of certainty for all stakeholders in the meantime

11.5 The Planning Committee is not being asked to make a policy decision in relation to the trees, but to make a decision as the Planning Committee, in the same way that it would for trees in other ownership. This report follows the same format used in

⁷ Unless there was significant merit to retain the trees and that the Council was prepared to pay compensation for the trees retention.

⁸ South Cambridgeshire District Council Planning Committee 1 August 2012 – The Old Rectory, Little Gransden, Consideration of whether to confirm tree preservation order 01/12/SC 2012

determining statutory tree works in conservation areas and Tree Preservation Order tree works applications.

11.6 It is therefore recommended to advise the Executive Councillor for City Centre and Public Places that the Planning Committee supports the proposal to:-

- a) Reduce by ~30-40% by branch length (which equates to approximately ~70% by volume) trees T17, T21, T22, T23, & T24 , and maintain bi-annually at their reduced volume; and that cyclical pruning work is carried out to trees T18, T19, T20 and T27 to retain these trees at their current dimension; and
- b) Instruct Officers' to consider the adoption of the Joint Mitigation Protocol as policy in the forthcoming Tree Strategy.

12.0 IMPLICATIONS

(a) Financial Implications

There are a number of on-going insurance claims that affect the buildings and trees on both boundaries of Alexandra Gardens and the potential for new future claims. As a result, the liability to the Council is currently high and could possibly increase.

A contingency risk budget of £570,000 was set aside in 2011/12 to offset the Council's liability. However, as can be seen from the breakdown of settled claims and anticipated future claim estimates below, the Council faces a potential current budget shortfall of £141,817. A synopsis of each of the settled and anticipated claims, identifying status, nature and financial values is included in appendix 2.

• Claim A and B	£177,117 settled
• Claim C	£160,000 engineering works started
• Claim D	£75,000 engineering works not started
• Claim E	£60,000 engineering works complete
• Claim F	£100,000 estimated
• Claim G	£60,000 engineering works complete
• Claim H	£79,700 engineering works not started
Total	£711,817

If the recommended works to the trees is carried out, the Council's insurers may be able to act on our behalf and defend the claims for properties where engineering solutions have not yet commenced (liability value estimates £122.883) and any new claims. If the tree

works are carried out we would be in a position to argue that there is no longer a requirement to carry out the engineering solutions and so incur the associated liability costs £112,883. In addition we would be in a position to defend any future claims.

If we don't undertake this work - which will see the branches of five of the trees in Alexandra Gardens reduced by ~30% in length, which is ~70% in volume - we may remain liable for the full cost of any underpinning undertaken in neighbouring properties. There is no way of knowing what the upper limit of this could be, but the Council would probably have to set aside between £500,000 and £1.5 million to ensure we had enough to cover any potential liability. This sum does not include the £710,000 of current liabilities. The Council currently has a budget of £570,000 set aside for this, so current liabilities alone exceed our budget by £140,000. And it doesn't include any ongoing liability - meaning that where we pay for underpinning, and the underpinning fails, we might have to pay to underpin the properties again.

The Council's insurers would not meet any future claims against these five trees because the trees are known to have caused structural damage

- (b) **Staffing Implications** none identified
- (c) **Equal Opportunities Implications** none identified
- (d) **Environmental Implications**

Nationally, there is currently concern over the potential for shrinkage and expansion of clay soils, which in turn could exacerbate subsidence and movement, and increase demands for tree removal to protect buildings and walls. This is a significant problem in some urban areas with soils that are prone to shrinkage and expansion – London is the most significant example – and is an issue in Cambridge. The adoption of the Joint Mitigation Protocol will greatly streamline the evidence gathering and assessment process. It would also lead to more effective decision-making in terms of whether to fell, prune or underpin.

Future risk could be avoided by ensuring that foundations for new houses are 'fit for purpose' over their intended lifetime, and ensuring that the levels of evidence required to support the

removal of a tree are proportionate to its value, have also been recommended⁹¹⁰.

(e) **Community Safety** none identified

BACKGROUND PAPERS: The following are the background papers that were used in the preparation of this report:

- The City Council's Tree Works Protocol;
- Julian Forbes Laird CAVAT scores;
- Redacted copies of all consultation responses;
- Consultation Report on the proposed tree works on Alexandra Garden - 12th January until the 18th February 2015;
- BRE (Buildings Research Establishment) Categories
- South Cambridgeshire District Council Planning Committee 1 August 2012 – The Old Rectory, Little Gransden, Consideration of whether to confirm tree preservation order 01/12/SC 2012
- Tree Design Action Group – No Tree, No Future

To inspect these documents contact Alistair Wilson on extension 8514

The author and contact officer for queries on the report is Alistair Wilson on extension 8514.

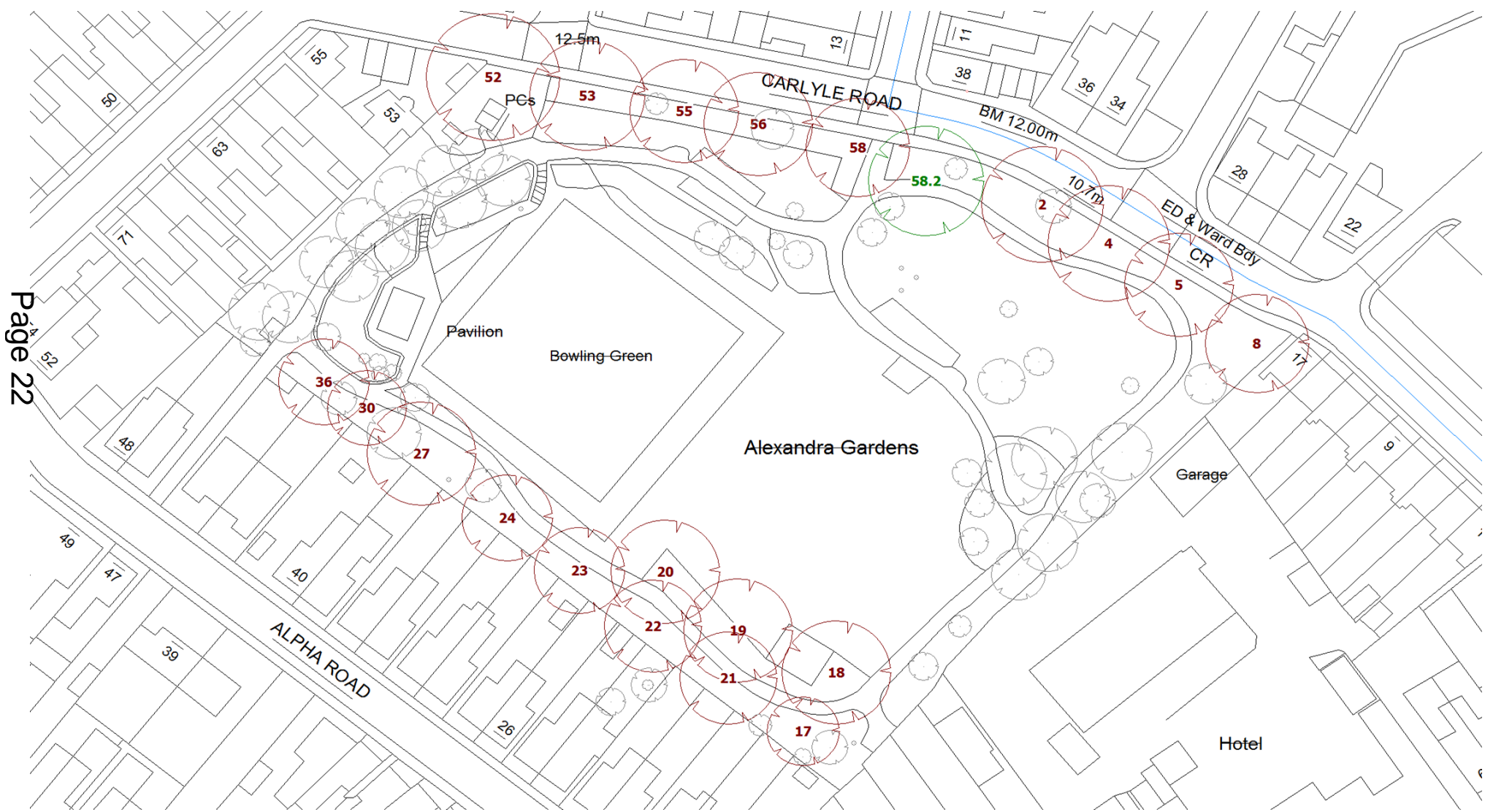
Date originated: 20th February 2015

Date of last revision: 24th February 2015

⁹ The Joint Mitigation Protocol will ensure the correct levels of evidence are provided

¹⁰ Tree Design Action Group - No Tree, No Future, p. 10

Appendix 1 Alexandra Gardens Site Plan identifying tree numbers



Appendix 2

Alexandra Gardens Tree Root Subsidence Claims as of the 15/05/2014

Carlyle Road side

Address	Plane trees affected	Mitigation requested	Estimated costs	Status	Loss Adjuster Comments	Timescales for Tree Works
Claim C	T53 direct T52 & T55 indirect	Fell and grind stump ¹¹	£45k-£160k	On-going	Waiting on result of tree works prior to carrying out repairs. Claimants representative have chased for update on tree works. No timescale; hopefully can be appeased by works in Autumn/Winter. Root Barrier could be an alternative feasible option ¹² .	Autumn/ Winter work, decision as soon as possible
Claim A	T55, 56, 58	Remove (56) Reduce below 16m (55&58) ¹³	Settled	Settled	No further comment	None

Alpha Road

Address	Plane trees affected	Mitigation requested	Estimated costs	Status	Loss Adjuster Comments	Timescales for Tree Works
Claim E	T19,20,21 & 22	Remove (T22 & T23) Do not allow to exceed current dimensions (20 & 19) ¹⁴	£50k-£60k	On-going CCC under formal notice of construction	Solicitor appointed Unsure at this stage if they will push for underpinning Timescales dependant on claimant May wait for tree works	Autumn/ Winter, decision as soon as possible

¹¹ Arboricultural Assessment Report by OCA dated 12/1/12

¹² But no longer because underpinning has taken place

¹³ Arboricultural Consultancy for Royal Sun Alliance by Marishall Thompson dated 19/7/04

¹⁴ Arboricultural Consultancy for Esure by Marishall Thompson dated 16/2/10

					We need to give claimant indication of timescales	
Claim B	T19, 21 & 22	30% crown reduction ¹⁵	£50k-£60k	On-going (time frame for limiting costs by managing trees has passed)	Underpinning complete Negotiation to take place on settlement.	Not applicable
Claim H	T27, 24 & 23	Remove (T24) Do not allow to exceed current dimensions (T27 & T23) ¹⁶	£79k	On-going	No solicitor appointed Waiting on result of tree works prior to carrying out repairs.	Autumn/ Winter, decision as soon as possible
Claim G	T23 & 24	Significant reduction, removal preferred ¹⁷	£50k-£60k	On-going	Recently passed to loss adjusters. No update available.	Autumn/ Winter, decision as soon as possible
Claim F	T20, 22 & 23	No details at present	£100k	Not a claim at present, currently being monitored	No update	Unknown
Claim D	T17	Removal of Plane trees ¹⁸	£75k	On-Going (Recent Claim)	Solicitor appointed Suggested recently no response within 14 days, no alternative but to seek engineering solution.	Immediate, decision as soon as possible

¹⁵ Letter from Graham High Group at 26/6/08

¹⁶ Arboricultural Consultancy for Canopus by Marishall Thompson dated 3/7/12

¹⁷ Analysis of site investigation data by Graham High Group dated 5/3/13

¹⁸ Claim from Beachcroft solicitors 10/1/14, analysis by Soiltech Surveys 9/10/12

Appendix 3

Alexandra Gardens Tree Root Subsidence Claims as of the 18/12/2014

Property	Notification Date of Claim	Structural Position	Insurance Position	Claim Position	Cost Reserve /	CCC Loss Adjuster Comments - Dec 14
Claim A	May-08	Underpinning Complete	Not Covered by CCC Public Liability Insurance - Cost met direct by CCC	Closed	Collectively disclosed as £177,117	N/A
Claim C	Jan-12	Underpinning has commenced and is likely to be complete well before March	Unlikely to be covered by CCC Public Liability Insurance - Cost met direct by CCC	Open	£160000	No further update on this claim other than works have commenced on the property
Claim D	Jan-14	No evidence that property repairs have been completed	No confirmation on insurance position provided to date, if the tree works are carried out it is		£75,000.00	GAB Robins ¹⁹ have advised that it is apparent that JFL are not in possession of the documents provided by the Claimants in support of their claim or their Surveyors report. Gab Robins have advised from the data available on this claim that within TP2 roots were found to a depth of 2.5m which is below foundation depth and in the area of made ground but not extending into the clay beneath. The root analysis for the roots removed from TP2 found live roots to a depth of 1.5m from the

¹⁹ GAB Robins is a loss adjusting and claims management company head quartered in the UK

			possible that CCC will be able to maintain a defence on this claim			Platanus species and dead roots to a depth of 2.5m. Soil samples were analysed from both TPBH1 and 2 through a laboratory and found that the plasticity of the soils ranged from 29% through to 52% which is high and very high plasticity. The soil moisture content reduced at 1000mmm below ground level, though it is inconclusive if this is a natural occurrence or not and thus desiccation is not confirmed. A drainage survey was conducted in October 2012 and all drainage was found to be in good condition and to be watertight. The Surveyor for Gab Robins has attended the site and inspected the property. The damage is mainly restricted to the rear addition (original) and its junction to the main loss address and takes the form of BRE category 1, 2 and 3 cracks to the walls/ceilings. Originally it was stated as BRE category 1 and 2 cracks in August 2012. The Claimants have not, despite requests, provided their Engineering Appraisal report to date. Following his site inspection and following review of the data available the Surveyor from the Gab Subsidence Team concluded that on the balance of probabilities the Council tree had been causative and on this basis the tree works should be carried out. Regarding liability Gab felt that this was likely to attach but the additional data from the Claimants would assist in establishing this further. In summary therefore Gab are of the opinion that the tree should be crowned as recommended.
Claim B	Nov-07	Underpinning Complete	Not Covered by CCC Public Liability Insurance - Cost met direct by	Closed	Collectively disclosed as £177,117	N/A

			CCC			
Claim E	Sep-09	Property Repairs Complete	Not Covered by CCC Public Liability Insurance - Cost to be met direct by CCC	Open	£60,000.00	Gab have reviewed the Forbes Arbo. report in relation to Claim E and have noted that Forbes recognise the evidence that does actually support the view that the trees have caused the crack damage and the suggestion that further monitoring would be useful. They have advised that repairs have now been completed on this matter and as such further monitoring is not possible. Legally tree root trespass cases are dealt with on the basis of the balance of probabilities and the Courts have firmly set out that Defendants cannot hold out for all possible evidence before deciding on liability. Based on the evidence available our Surveyor has advised that on the balance of probabilities the Council vegetation has caused crack damage to the Claimant's property. Regardless however I note that decision is hopefully to be made shortly to proceed with the tree works. Gab Robins are currently in discussion with the Claimants regarding quantum and will return to us and Zurich in this regard shortly.
Claim G	Mar-13	Property Repairs Complete	Not Covered by CCC Public Liability Insurance - Cost to be met direct by CCC	Open	£60,000.00	Gab note on this case that Forbes accept that the evidence indicates tree related subsidence damage but has suggested that further monitoring would be useful as a last check. Gab Robins have advised that things have moved on considerably from the point in time reflected in the docs reviewed by Forbes. Repairs have now been completed so no further monitoring is possible. Gab Robins are awaiting the final repairs docs so that they can assess quantum, these have been chased recently.

Claim H	Sep-12	No evidence that property repairs have been completed	No confirmation on insurance position provided to date, if the tree works are carried out it is possible that CCC will be able to maintain a defence on this claim	Open	£79,700.00	After Gab Robins review of this case they formed the view that liability had not been established as the Claimants evidence was inadequate. This is in line with Forbes views and we have requested and still await the Claimants additional evidence. However, unlike Forbes, Gab Robins feel it prudent on a precautionary basis to proceed with tree management works and we remain of this opinion. As given the history of subsidence in the area we anticipate that the Claimants will ultimately be able to establish, on the balance of probabilities, that the trees have had a causative effect on the crack damage. Gab Robins have noted that CCC are aiming to carry out tree works next year and can confirm that they are of the opinion that this is the correct course of action.
					£611,817.00	