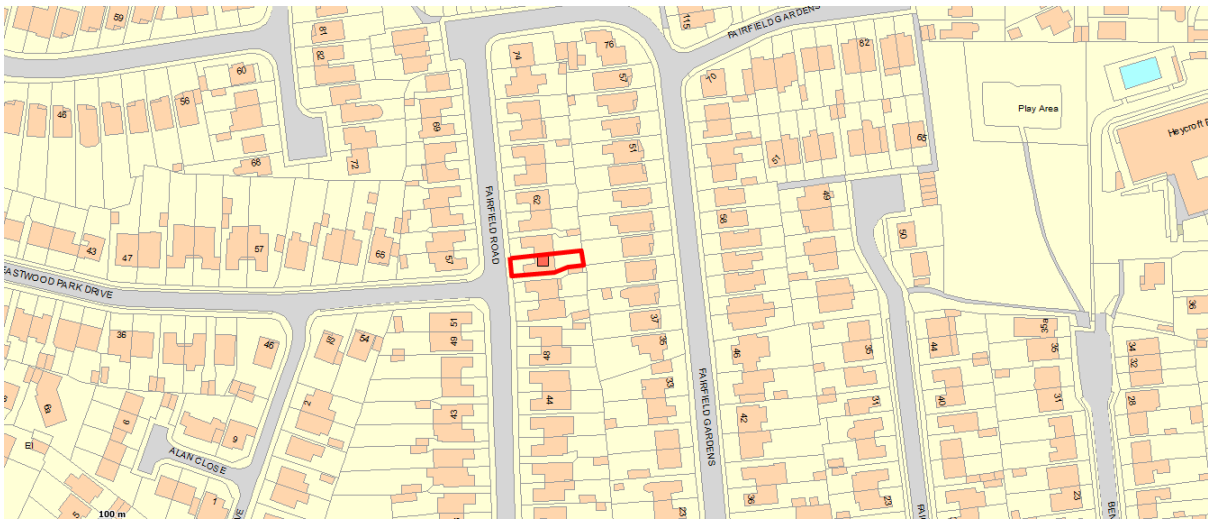


Reference:	20/00696/TPO	
Application Type:	Tree(s) subject to TPO	
Ward:	Eastwood Park	
Proposal:	Remove to ground level 1 Oak Tree (T1) at rear (Application for works to trees subject to a Tree Preservation Order)	
Address:	56 Fairfield Road, Eastwood, Essex	
Applicant:	Subsidence Management Services	
Agent:	IG Environmental Services of Innovation Group Environmental Services	
Consultation Expiry:	31 st July 2020	
Expiry Date:	10 th September 2020	
Case Officer:	Abbie Greenwood	
Plan Nos:	<p>Tree Plan, Arboricultural Consultancy for Lloyds Bank (Engineers Report) reference SA-242046, Subsidence Survey Letter from Innovation Group reference IFS-LBG-SUB-18-0078729, 2 x Bore Hole Data Reports by Geotechnical reference C42563G22286 for BH1 and reference R30899 for BH2, Drainage Investigation Report by Subs Network reference IFS-LBG-SUB-18-0078729 and C42563 D14516, Soil Analysis reference C16325S42563, Engineer Addendum Report by Innovation Group dated 31.03.20 ref IFS-LBG-SUB-18-0078729, Root Identification Report reference R24818, Levels Monitoring Report reference M13687, Crack Monitoring Report reference M13687, Photos of damage</p>	
Recommendation:	Members are recommended to GRANT CONSENT TO CARRY OUT WORK TO TREES	



1 Site and Surroundings

- 1.1 The tree is a large mature oak tree situated on the rear boundary of 56 Fairfield Road. It is about 13m high and overhangs the surrounding rear gardens. It is approximately 15 from the applicant's property number 41 Fairfield Gardens which backs onto the rear garden of 56 Fairfield Road to the east.
- 1.2 The tree forms part of a wider group of large oak trees which run along the rear boundaries of the properties north and south of the application site. Large groups of oak trees are a defining characteristic of the local area and were in existence before most of the houses were built.
- 1.3 Although situated in the rear garden, the tree is visible above the bungalows in Fairfield Road and makes a contribution to local character both individually and as part of the wider group of mature trees. The bungalows are tightly spaced in the streetscene (approximately 1.25m to side boundaries or less).
- 1.4 The tree is covered by TPO 4/67 A4. The property was built circa 1968, the year after the preservation order including the oak tree at 46 Fairfield Road was confirmed.

2 The Proposal

- 2.1 Permission is sought on behalf of the owners of 41 Fairfield Gardens to fell this tree because it is causing structural damage to the property. The following supporting documents have been submitted in evidence of this damage:

- Tree Plan,
- Arboricultural Consultancy for Lloyds Bank (Engineers Report) reference SA-242046,
- Subsidence Survey Letter from Innovation Group reference IFS-LBG-SUB-18-0078729,
- 2 x Bore Hole Data Report by Geotechnical reference C42563G22286 for BH1 and reference R30899 for BH2,
- Drainage Investigation Report but Subs Network reference IFS-LBG-SUB-18-0078729 and C42563 D14516,
- Soil Analysis reference C16325S42563,

- Engineer Addendum Report by Innovation Group dated 31.03.20 20 ref IFS-LBG-SUB-18-0078729,
- Root Identification Report reference R24818,
- Levels Monitoring Report reference M13687,
- Crack Monitoring Report reference M13687,
- Photos of damage

2.2 The application form states that the tree works are proposed to stop the influence of the tree(s) on the soil below the building foundation level and to provide long term stability. It is stated that it is the expert opinion of both the applicant's case engineer and the applicant's Arboriculturist that on the balance of probabilities the supporting information demonstrates the influence of the trees(s).

2.3 In relation to other options the agent has confirmed that a root barrier was considered but this was discounted because it would not be feasible. This is because it would not be possible to get the necessary digging equipment into the rear of the property given the access constraints. (it would need to be dug to at least 3m and potentially across several properties to be effective)

3 Relevant Planning History

3.1 No planning history.

4 Representation Summary

Public Consultation

4.1 8 neighbouring properties were consulted and a site notice displayed. No letters of representation have been received.

Park (Trees)

4.2 The Council's Tree Officer consideration of the submitted reports has been incorporated into the appraisal in section 7 below but can be summarised as:

- The tree is a mature oak which is 15m from the property
- The applicant seeks to fell the oak due to subsidence, the application therefore needs to demonstrate that the oak is the cause and that there are no alternatives to felling
- The Engineers Report confirms that the rear of the building has cracks of up to 15mm (moderate) which have downwards and slightly rotational movement which suggests a drop in foundations most likely caused by subsidence
- The Arboricultural Report identifies that the oak tree T1 (in the garden of 56 Fairfield Road) as the principal cause of the subsidence damage. Due to the size and proximity of the oak tree the report states that it is consistent with the location of damage and the advised mechanism of movement and recommends removal.
- The CCTV survey confirms the drains are not implicated.

- The Geotechnical Reports and Bore Hole Analysis showed the foundations to be 1.1m and oak roots of less than 1mm found below some live and some dead. Although this would seem to be little in the way of evidence of active tree roots it is likely that where there is one live and three dead oak roots there will be others in the soil surrounding the locations of the trial pits/boreholes.
- The Soil Analysis confirmed the soil samples show the soil to be highly shrinkable clay and that desiccation is present especially at depths between 1.0 and 2.0m.
- The Crack Analysis confirmed a cyclical pattern of opening in the summer months and closing in the winter which is consistent with subsidence damage being caused where shrinkable clay soil beneath the building foundations is being affected by vegetation absorbing moisture from the soil
- The Level Monitoring readings again demonstrate a cyclical pattern of dropping in the summer months following by lifting in the winter. These readings also support the report conclusion that vegetation in the form of the oak tree is the cause of the subsidence damage
- The Engineers Report Addendum commented that the diagonal aspect of the cracks and their locations on the building, together with the fact that they increase in width with height is indicative of subsidence as a result of shrinkage of the clay subsoil due to the moisture extracting influence of nearby vegetation.
- Their engineers have stated that in order for an effective root trench and barrier to be installed it would have to span across the widths of neighbouring gardens as well as the property concerned and would need to be to a depth of 3.5m. They state that this would not be possible due to access restrictions for the equipment which would be required. So this rules out a root barrier as an alternative to removal of the tree.

Given this evidence we cannot object to the application for the removal of this tree on the basis of subsidence damage being caused to the private property.

4.3 This application was called to committee by Councillor Walker.

5 Planning Policy Summary

5.1 The National Planning Policy Framework (NPPF) (2019)

5.2 Core Strategy (2007) Policies KP2 (Development Principles) and CP4 (Environment & Urban Renaissance)

5.3 Development Management Document (2015) Policy DM1 (Design Quality)

5.4 Design & Townscape Guide (2009)

6 Planning Considerations

6.1 When determining a TPO application the authority should consider the following:

- The likely impact of the proposal on the amenity of the tree and whether or not the proposal is justified having regard for the reasons for the application and any supporting information supplied with the application
- whether any loss or damage is likely to arise if consent is refused or granted subject to conditions

- whether any requirements apply in regard to protected species
- whether there are any other material considerations, including development plan policies

7 Appraisal

- 7.1 The Council seeks to protect preserved trees which make a positive contribution to local character. Applications for pruning and felling of preserved trees therefore need to be justified.
- 7.2 The tree in question is in private ownership and is a mature oak located in the rear garden of property 56 Fairfield Road. This property shares a rear garden boundary with 41 Fairfield Gardens and the tree is around 15 metres away from the neighbouring property building at number 41.
- 7.3 The applicant has applied for the tree to be felled on the grounds that subsidence damage is occurring at property 41 Fairfield Gardens and the main cause of this damage are the roots from the preserved oak tree in the nearby garden of 56 Fairfield Road.
- 7.4 A number of investigations have been carried out at the property to demonstrate that the tree is the cause of the damage. The Council's Tree Officer has reviewed these documents and provided the following comments on their findings.

Engineers Opinion Report, October 2018

- 7.5 This initial report describes the site and the damage to the property and suggests a cause based on initial findings. The report states that the damage was first noticed on 28th August 2018 which is consistent with vegetation related subsidence as summer is the time that water demand on the soil from plants is at its greatest. The report also suggests that the most likely cause of the damage is *'shrinkage of underlying soils due to seasonal variations in moisture content. This will have been exacerbated by the moisture extracted by the roots of the vegetation on the neighbouring property.'*
- 7.6 The report identifies an oak tree and one other broadleaf tree nearby as having potential influence on the damaged property. The damage is described as *'indicative of slight downward and rotational movement to the rear of the property, relative to the remainder of the building'* which suggests that the foundations to rear of the property have dropped. The damage is rated as Category 3 (crack widths are 5 to 15mm or several cracks of 3mm) under the 'Building Research Establishment (BRE) Digest 251 – Assessment of damage in low-rise buildings'. This means that the weathertightness of the walls may be compromised.
- 7.7 The report concludes that vegetation management in the form of removal or reduction will be required for the damaged property to regain stability.

Arboricultural Report, December 2018

- 7.8 The arboricultural report was carried out before any of the site inspections and subsequent soil testing reports or crack and level monitoring readings had commenced. As such the report was produced using the Engineers Opinion Report only as background information regarding the condition of the building and the potential causes of the observed damage. It outlines that: *'this report is based on the understanding the engineers are satisfied that damage is due to clay shrinkage subsidence exacerbated by vegetation.'*
- 7.9 The report identifies the oak tree T1 (in the garden of 56 Fairfield Road) as the principal cause of the subsidence damage. The oak tree is approximately 15m from the damaged building which is within the rooting area of the tree. The report states: *'it is our opinion on balance of probability that roots from the above vegetation (the oak tree T1) will be in proximity to the footings of the insured property'*. [This was later confirmed in both trial pit/boreholes at either rear corner of the building- see below]. The report dismisses pruning of the oak tree as effective management due to the size and proximity of the tree and recommends its removal. The report also identifies a number of other garden trees but does not implicate these in the current damage to the building.

CCTV Drain Survey, March 2019

- 7.10 The CCTV survey submitted did identify some defects within the drains but these were in an area remote from the damaged area of the building. As such they were considered not to have any effect on the subsidence problem.

Geotechnical Reports (Trial pit/borehole results) dated 28 January and 15 July 2019

- 7.11 These reports record results from the two trial pits/bore holes excavated at the rear of the property. They confirmed the soil to be shrinkable clay and the foundations to be around 1.1m. Occasional roots were found in both boreholes below foundation depths

Root Identification Reports, January and July 2019

- 7.12 Two small roots of less than 1.0mm in diameter were sampled from trial pit/borehole 1 at a depth of between 1.08-2.6m. The identification confirmed that the roots were from an oak tree. The starch indicated that they were not alive when sampled.
- 7.13 Three small roots of 1.0mm or less in diameter were sampled from trial pit/borehole 2 between depths of 1.1-2.6m again from an oak tree. The starch indicated that only 1 of 3 was alive when sampled.
- 7.14 In relation to these results the Councils Arboricultural Officer comments that although this would seem to be limited evidence of active tree roots in the vicinity of the foundations, it is likely that where there is one live and three dead oak roots there will be others in the soil surrounding the locations of the trial pits/boreholes.

Soil Analysis, July 2019

- 7.15 The soil samples from the bore hole were analysed to determine if the soil is desiccated. Desiccation or drying of the soil occurs naturally to an extent in the summer months but can be exacerbated by the influence of vegetation as the roots of trees and shrubs penetrate throughout the airspaces between soil particles and absorb water. The moisture content of the samples was found to be close to the 'Plastic Limit' of the soil which means it is dry and acting like a plastic. The other tests carried out confirm that the soil samples show desiccation is present especially at depths between 1.0m and 2.0m.

Crack Monitoring, June 2019-March 2020

- 7.16 Internal cracks appear in the bathroom, the kitchen and the landing and the external crack is in the gable wall below the bathroom window. The dimensions of the cracks were measured every 8 weeks. The report confirms that the cracks show a cyclical pattern of opening in the summer months and closing in the winter. This is typical for subsidence damage being caused where shrinkable clay soil beneath the building foundations is being affected by vegetation absorbing moisture from the soil during the dryer summer months.

Level Monitoring, June 2019-March 2020

- 7.17 Level monitoring is often a better indicator of subsidence damage as it provides an actual reading of how the building is dropping and lifting over time. The recording station placed at the rear of the property showed the greatest changes again confirming a cyclical pattern of dropping in the summer months following by lifting in the winter. These readings support the report conclusion that vegetation in the form of the oak tree is the cause of the subsidence damage.

Engineers Report Addendum, March 2020

- 7.18 This final report summarises the findings and test results carried out. It concludes that the above reports confirm that there are oak tree roots below the foundations and the diagonal aspect of the cracks together with the seasonal changes and the fact that they increase in width with height is indicative of subsidence damage resulting from a reduction of the moisture content in clay soil caused by vegetation. It recommends felling the tree as the only option in this case.
- 7.19 Overall it is considered that sufficient evidence has been provided to implicate the preserved oak tree with the subsidence damage occurring at property 41 Fairfield Gardens.
- 7.20 In deciding whether to allow the felling of this tree the Council has a duty to consider all options. The installation of a root barrier as an alternative to felling the tree was queried with the agent but they advised that this would require digging down over 3m deep across a number of gardens and that this option has been discounted due to access restrictions as it would not be possible to get a mechanical digger into the rear garden of the property.

7.21 Other options include undertaking more complex repairs to the property which will enable the tree impact to be mitigated in the future. In relation to this the agent has confirmed that:

- *'The application form states that the tree works are proposed to stop the influence of the tree(s) on the soil below building foundation level and provide long term stability.*
- *Estimated costs of repair to the building are £10,000 for standard superstructure repairs, making good and decoration if the tree is felled. If the tree is retained the cost would include an additional £48,000 for underpinning with pile/beam to the rear and return flanks which will need to be added to the standard repairs making a total of £58,000*
- *Granting permission will therefore significantly limit these costs.*
- *In the event of a refusal we, or our clients, will seek to secure compensation for the additional costs incurred through Section 202(e).*

7.22 On balance the Council's Arboricultural Officer considers that the evidence presented satisfactorily demonstrates that the tree is implicated in the damage to the property and that there are no other reasonable options which would enable the tree to be retained. The felling of the tree is therefore accepted. In this instance, given that the tree is located to the rear of the dwellings, it would not be reasonable to require a replacement as this would have no public amenity value for many years.

7.23 In regard to the other issues noted above there is no known evidence of protected species or nesting birds, however, as a precaution, a condition can be imposed to ensure that the works are carried out in accordance with British Standard BS3998 which covers the protection of wildlife and its habitat.

8 Conclusion

8.1 Having taken all material planning considerations into account it is considered that the evidence submitted has satisfactorily demonstrated that the tree is the cause of the damage and that there are no other viable or reasonable options to felling this tree. The proposal is therefore, on balance, considered to be acceptable and compliant with the objectives of the relevant development plan policies and guidance and the application is recommended for approval.

9 Recommendation

9.1 Members are recommended to GRANT CONSENT TO CARRY OUT WORK TO TREES subject to the following conditions:

01 The works covered by this consent must be begun not later than the expiration of two years beginning with the date of this consent.

Reason: To enable the circumstances to be reviewed at the expiration of the period if the consent has not been implemented, in accordance with the National Planning Policy Framework (2019), Core Strategy (2007) Policy KP2 and CP4, Development Management Document (2015) Policy DM1 and advice in the Southend Design and Townscape Guide (2009).

02 The works shall be carried out in accordance with British Standard BS 3998 (2010) by a suitably qualified person.

Reason: In the interests of ecology and in accordance with the National Planning Policy Framework (2019), Core Strategy (2007) policy KP2 and CP4, Development Management Document (2015) Policy DM1 and the Southend Design and Townscape Guide (2009).

The Local Planning Authority has acted positively and proactively in determining this application by assessing the proposal against all material considerations, including planning policies and any representations that may have been received and subsequently determining to grant planning permission in accordance with the presumption in favour of sustainable development, as set out within the National Planning Policy Framework. The detailed analysis is set out in a report on the application prepared by officers.