

Arboricultural Report - evidence to support application

1.0 LOCATION

- Grass verge (**Fig.1**) to the east of 11 Aldwick Place, Bognor Regis PO21 4AD.



Fig.1 — Aldwick Place (Microsoft product screen shot reprinted with permission from Microsoft Corporation)

2.0 TREE DETAILS

- **Species** Scarlet oak (*Quercus coccinea*)
- **Height** 14.5m
- **Stem diameter** 760mm at 1.5m above ground level
- **Crown spread** N-7m
E- 8m
S- 6m
W-9m
- **Age class** Mature
- A mature, single-stemmed tree that divides into three or four main ascending stems and large-diameter upswept branches to form a broad flat-topped crown. The tree is included in tree preservation order number **TPO/AW/237/10**.

3.0 APPRAISAL

- **Foliage and branch tips** – a reasonably full crown of live foliage in the west and north-west quadrants but significant loss of foliage and apical dieback in the east and south-east quadrants and the central upper crown (**Fig. 2**).



Fig.2 – sparse chlorotic foliage and apical dieback.

- **Branches** – apical dieback, minor deadwood and death of entire branches throughout the crown but more noticeable to the east and north-east (**Fig.3**).



Fig.3 – apical dieback, minor deadwood and entire dead branches.

- **Main stem** – loose, lifting and missing bark in a broad strip around the south quadrant of the stem, to around 2.5m above ground level, leaving dysfunctional tissue exposed in places (**Fig. 4**).



Fig.4 – bark loss and exposed dysfunctional tissue.

Black exudates were present higher on the stem and also on the north-east sector of the stem (**Fig.5**) – which sounded hollow when tapped with a nylon mallet.



Fig.5 – exudates on north-east sector of stem.

- **Buttresses and stem base** – minor wounding and bark loss noted on south-west buttress root (**Fig.6**).



Fig.6 – bark loss on buttress root.

4.0 COMMENT

- Last pruned in 2019 – to remove significant deadwood and shorten branch tips where apical dieback was advanced – the tree has shown a rapid decline in condition. Some live growth from dormant buds remains at pruning points of shortened branches low in the crown but has died back elsewhere or not responded at all.
- Loss of foliage and apical dieback is more extensive to the east and north-east and is likely to be related to the death of the cambial layer and loss of vascular tissue on the main stem rather than due to exposure to the prevailing wind; NB - *the tree of heaven (Ailanthus altissima)*, to the north-west of the oak, has the loss of foliage at branch tips in the upper south-west crown typical of many species exposed to two days of drying winds as new leaves were emerging at the end of May 2021 (**Fig. 7**).



Fig.7 – Tree of heaven – loss of foliage in exposed upper crown.

- The hollow sound when the north-east sector of the main stem was tapped indicates further loss of cambium immediately under the bark rather than decay and hollowing of the heartwood.

- Bark loss on the buttress root is due to mechanical damage rather than disease.

5.0 CONCLUSIONS

- There were no signs of new cambium/bark development at the margins of dysfunctional tissue exposed by bark loss and the continued loss of cambium and vascular tissue will lead to a rapid increase in the decline of the tree.
- There were no obvious fungal fruiting bodies present or signs of heartwood decay that would indicate a loss of structure or an increased potential for sudden stem failure but there is an increased risk of falling dead branches.
- Further pruning to remove dead and dying branches may temporarily reduce those risks but will result in an unattractive, one-sided form that will continue to deteriorate.

6.0 RECOMMENDATIONS

- Fell tree and plant suitable replacement.

7.0 DETAILS

- Inspection date - 16th October 2021
- Date of report - 27th October 2021

References

Lonsdale, D. (2005). *Principles of tree hazard assessment and management, third impression*. TSO
Mitchell, A. (1974). *Collins Field Guide. Trees of Britain and Europe*. HarperCollins.
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