

TREES AND DEVELOPMENT DESIGN PRINCIPLES



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INTRODUCTION

Trees are dynamic living organisms and environmental assets that deliver important ecological, visual, and amenity benefits. Within the context of development, they contribute to local character and ecology, provide established landscape structure, and soften the impact of built form, supporting the creation of high-quality, sustainable living environments.

Where development proposals have the potential to affect trees, an assessment should be undertaken of their arboricultural value, the direct and indirect impacts arising from the proposed works, and any foreseeable future conflicts, including pressure for pruning or removal. Measures to protect retained trees, or to provide appropriate mitigation and compensation where tree loss is unavoidable, should be fully evaluated and may be secured by condition as part of the planning process.

The design process must take account of both the above-ground structure of trees, including stems, branches, and crown spread, as well as the below-ground root system, as defined by the Root Protection Area (RPA).

PRINCIPLES

Adherence to the following design principles will help to avoid or reduce impacts on existing trees, thereby supporting a compliant design, minimising the risk of arboricultural constraints affecting project delivery, and improving the likelihood of a smooth planning outcome:

No development should occur within Root Protection Areas (RPAs). The Root Protection Area is considered the minimum area required to preserve enough roots and soil volume to sustain a tree's health and stability. Areas beyond the RPA are generally considered suitable for development, in line with the guidance provided in BS5837:2012.

No development should occur near tree canopies, particularly where trees are young or semi-mature and anticipated to experience significant future lateral growth. Scaffolding requirements for proposed buildings near trees must also be considered to ensure adequate construction clearances can be provided, mitigating potential negative impacts on surrounding trees.

If tree removal is unavoidable, priority should be given to the removal of Category U trees, followed in order by Categories C, B, and A.

Hard surfacing should avoid RPAs. Hard surfacing should be located outside Root Protection Areas (RPAs). Where site levels permit, no-dig hard surfacing may be acceptable in limited circumstances, provided that less than 20% of the unsurfaced RPA of an affected tree is covered. Further advice on no-dig hard surfacing solutions is set out in Guidance Note 121 published by the Arboricultural Association.

Where feasible, remove existing hard surfaces within RPAs and replace them with soft landscaping to enhance water infiltration, improve soil accessibility, and ultimately promote tree health.

Ground levels within RPAs must remain unchanged. Raising or lowering levels can suffocate roots or sever them, respectively.

¹ Arboricultural Association (2020). Guidance Note 12: The Use of Cellular Confinement Systems Near Trees – A Guide to Good Practice. Available at: https://www.trees.org.uk/Trees.org.uk/media/Trees-org.uk/Misc%20images/Bookshop/AA_GuidanceNote12_CellularConfinementSystems-Web.pdf

Route services outside RPAs wherever possible; if this cannot be achieved, trenchless installation methods may be necessary.

Plan demolition works outside RPAs wherever possible; if this cannot be achieved, use controlled dismantling methods and low-impact techniques to prevent root damage.

Locate temporary site compounds, storage areas, and machinery routes outside RPAs wherever possible; if this cannot be achieved, define, mitigate (temporary group protection) and maintain designated access routes to minimize soil compaction and root damage.

Engage an Arboriculturist early in the design process to ensure compliance with key principles and to identify arboricultural constraints and opportunities from the outset.

Soils must be thoroughly assessed, and foundations should comply with NHBC Standards Chapter 4.2: *Building Near Trees* (2021) ² to prevent future structural damage. On shrinkable clay soils, tree growth can cause differential movement as moisture is extracted during the growing season. Therefore, buildings near existing or proposed trees on such soils must incorporate suitable foundations, as advised by a qualified engineer.

Early adoption of these principles helps minimise arboricultural impacts, facilitates tree retention, and supports a smoother planning application, contributing to high-quality, sustainable development.

² National Housing Building Council (NHBC) (2023). NHBC Standards. Available at: <https://nhbc-standards.co.uk/>

