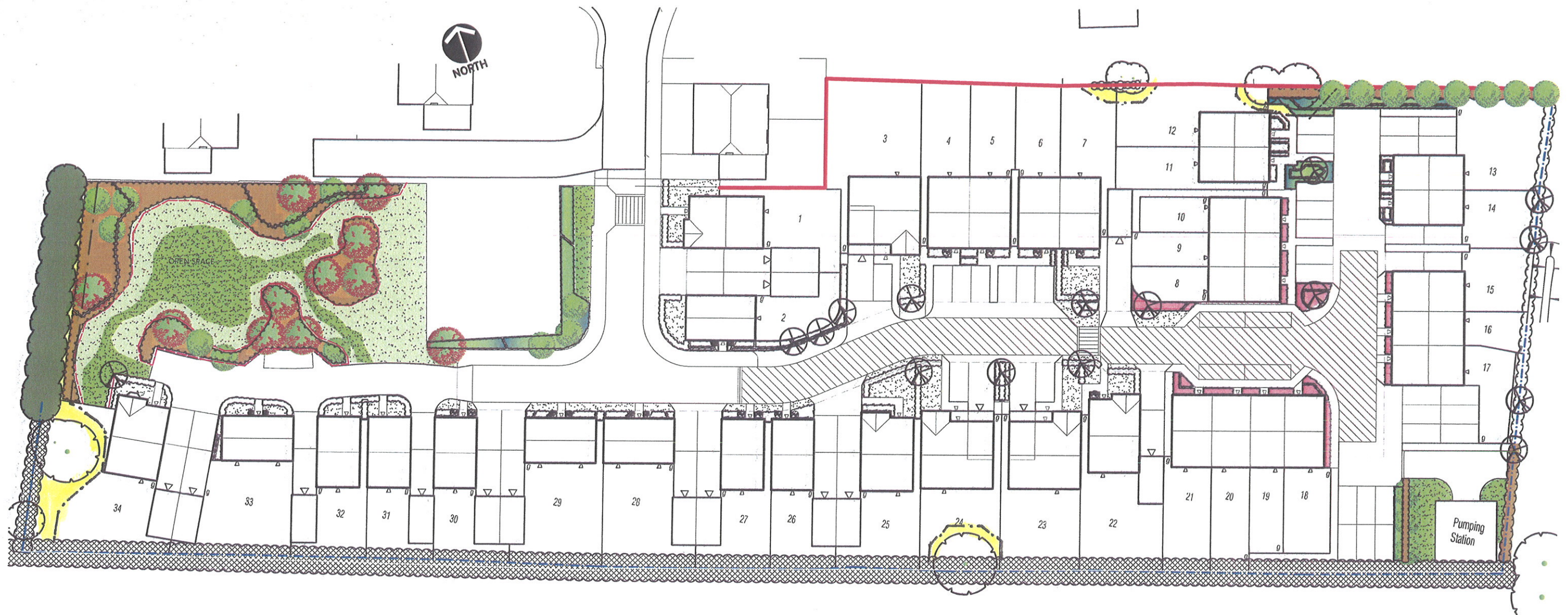
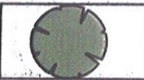
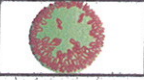
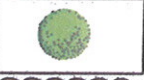




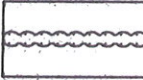
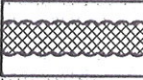
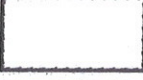
MANAGEMENT COMPANY RESPONSIBILITY

-  Existing vegetation retained
-  New Native Trees
-  New Ornamental and Fastigate Trees
-  New Native Shrub and Tree Planting
-  Temporary Rabbit and Dog proof fence
-  New Native Hedgerow
-  New Ornamental Planting
-  Long Grass mown twice per annum
-  Mown Grass

REGISTERED SOCIAL LANDLORD RESPONSIBILITY

-  New Tree and Ornamental Planting

HOUSE OWNER RESPONSIBILITY

-  Existing vegetation retained
-  New Trees
-  Ornamental Hedge
-  Native Hedgerow
-  New Ornamental Planting
-  Mown Grass

Client
BELLWAY HOMES

Project
FELLOWS GARDENS - YAPTON
Drawing Title

AREAS OF TREE PROTECTION

Drawing No
TPO/01

Scale
1:500@A3

Date
02-14

Drawn By

**Fellows Gardens
Yapton**

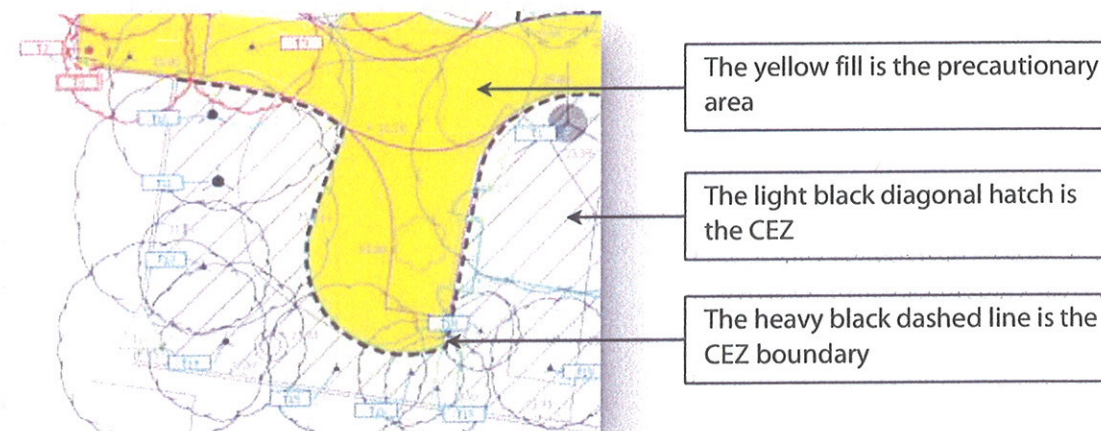
Introduction

1. Purpose and use of this guidance

This general guidance is for construction site management to help protect trees that have been agreed for retention. It must be read in conjunction with the site-specific proposals shown on the tree protection plan and explained in the body text of this report. It supplements and expands upon the principles set out in the British Standards Institution (2012) BS 5837: *Trees in relation to design, demolition and construction – Recommendations* (www.bsigroup.com) and the National Joint Utilities Group (NJUG) (2007) Volume 4, Issue 2: *Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees* (www.njug.org.uk). More specifically, it describes useful practical precautions that can be taken when working close to retained trees and provides sources of further information. Important terms include:

- **Root protection areas (RPAs):** RPAs are the areas surrounding retained trees where disturbance must be minimised.
- **Construction exclusion zone (CEZ):** This is the RPA where no construction activity should occur and damage is prevented by either installing fencing to restrict access or installing ground protection that allows limited access above the ground, while protecting the rooting environment below.
- **Precautionary area:** This is RPA outside the CEZ where limited works are proposed, but must be carried out with care to minimise any impact on the tree rooting environment.

These areas are illustrated on our plans and annotated as follows:



At the planning stage, this guidance describes practical methods and examples of how trees can be protected to assist the local planning authority (LPA) in deciding whether the proposal is feasible. If the LPA issues consent, this guidance, in conjunction with the report and tree

Protecting retained trees

protection plan, will act as a written record for reference during the construction process. Once work starts on site, this guidance is designed to help the site personnel implement effective tree protection. All personnel working in RPAs must be familiar with this document and be properly briefed about their responsibilities to protect important trees.

2. Arboricultural supervision

All work within RPAs requires a high level of care. Qualified arboricultural supervision is essential to minimise the risk of misunderstanding and misinterpretation. Site personnel must be properly briefed about protecting retained trees before any work starts. Ongoing work near trees must be inspected regularly by an arboriculturist and, on completion, the work must be signed off to confirm compliance by the contractor. This supervision arrangement will normally include a pre-commencement meeting, regular inspection visits and sufficient flexibility to allow for visits as necessary to deal with emerging tree protection issues.

Primary tree protection

3. Primary tree protection

The CEZ is the RPA surrounding retained trees that must be protected from any disturbance by the construction activity. In practice, this can be done by any combination of fencing and ground protection, to be finalised and agreed at the pre-commencement meeting. Whether the CEZ is protected by fencing or ground protection, all the protective measures must be installed before the start of any site works that could affect trees. No protective measures should be removed or temporarily dismantled without consulting the supervising arboriculturist. Furthermore, the condition of all the protective measures should be regularly monitored to ensure they remain fit for purpose. The main means of preventing damage to trees and their RPAs in the CEZ are fencing, barriers and ground protection.

4. Protective fencing

Various fencing options are illustrated in figure 1 and photos 2–4 below. The minimum specification for the fencing must be as described in figure 2 of BS 5837 (figure 1 below) or an equivalent design that effectively restricts access to the RPA it protects.

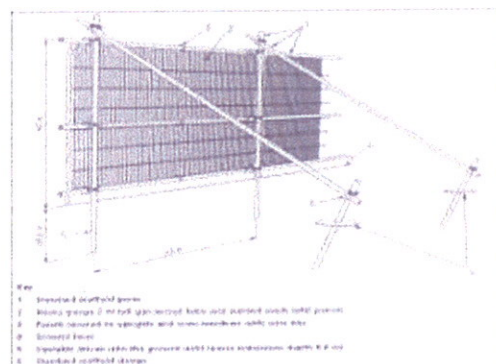


Figure 1: Recommendations taken from figure 2 of BS 5837.



Photo 2: Heras fencing wired to scaffold braced posts is a robust and effective interpretation of the BS specification.

Protecting retained trees



Photo 3: Close up of bracing detail, essential for increasing the stability of the vertical framework.



Photo 4: Board specification on secure wooden posts is a suitable alternative to the standard braced scaffold design.

The precise form of the fencing can vary, provided it is fit for purpose in that it effectively restricts access and damaging activities within the RPA that it encloses. More specifically, behind the fencing, there must be no vehicular access; no fires; no storage of excavated debris, building materials or fuels; no mixing of cement; no service installation or excavation; no raising or lowering of soil levels; and no excessive cultivation for landscape planting. Any variations to these restrictions must be agreed by the supervising arboriculturist.

5. Trunk protection

Where individual trunks or branches are vulnerable to impact damage, a framework of scaffold or wood can be constructed to provide protection (photos 5 and 6).



Photo 5: A scaffold braced framework surrounding the trunk reduces the risk of accidental impact.

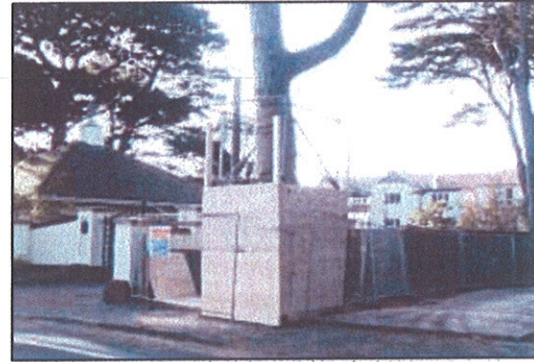


Photo 6: Board secured to scaffold framework adds another layer of protection for vulnerable trunks and branches.

6. Ground protection

Where it is not practical to protect the CEZ by the use of fencing alone, BS 5837 (6.2.3) allows for the fencing to be set back and the soil protected by ground protection. This allows improved access during construction, with the ground protection preventing damage to the CEZ outside the protection of the fencing. A range of methods can be used, including retaining existing hard surfacing or structures that already protect the soil, installing new materials, or a combination of both. Whatever the choice of method, the end result must be that the underlying soil (rooting environment) remains undisturbed and retains the capacity to support existing and new roots.

**Fellows Gardens
Yapton**