

BS 5837:2012

6.2 Barriers and Ground Protection

6.2.1 General

6.2.1.1 All trees that are being retained on site should be protected by barriers before any materials or machinery are brought onto the site and before any demolition, development or stripping of soil commences. Where all activity can be excluded from the RPA, vertical barriers should be erected to create a construction exclusion zone.

6.2.1.2 Areas of retained structural planting, or designated for new structural planting, should be similarly protected, based on the extent of the soft landscaping shown on the approved drawings.

6.2.1.3 The protected area should be regarded as sacrosanct, and, once installed, barriers should not be removed or altered without prior recommendation by the project arboriculturalist and where necessary approval from the local planning authority.

6.2.1.4 Where required, pre development tree work may be undertaken before the installation of tree protection measures, with the agreement of the project arboriculturalist or local planning authority if appropriate.

6.2.1.5 It should be confirmed by the project arboriculturalist that the barriers have been correctly set out on site, prior to the commencement of any other operations.

6.2.2 Barriers

6.2.2.1 Barriers should be fit for the purpose of excluding construction activity and appropriate to the degree and proximity of work taking place around the retained tree(s). Barriers should be maintained to ensure that they remain rigid and complete.

6.2.2.2 The default specification should consist of a vertical and horizontal scaffold framework, well braced to resist impacts, as illustrated in Figure 2. The vertical tubes should be spaced at a maximum interval of 3 metres and driven securely into the ground. Onto this framework, welded mesh panels should be securely fixed. Care should be exercised when locating the vertical poles to avoid underground services and, in the case of the bracing poles, also to avoid contact with structural roots. If the presence of underground services precludes the use of driven poles, an alternative specification should be prepared in conjunction with the projects arboriculturist that provides an equal level of protection. Such alternatives can include the attachment of the panels to a free standing scaffold support framework.

6.2.2.3 Where the site circumstances and associated risk of damaging incursion into the RPA do not necessitate the default level of protection, an alternative specification should be prepared by the project arboriculturist and, where relevant, agreed with the local planning authority. For example, 2 metre tall welded mesh panels on rubber or

concrete feet might provide an adequate level of protection from cars, vans, pedestrians and manually operated plant. In such cases, the fence panels should be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence. The distance between the fence couplers should be at least 1 metre and should be uniform throughout the fence. The panels should be supported on the inner side by stabiliser struts, which should normally be attached to a base plate secured with ground pins (Figure 3a). Where the fencing is to be erected on retained hard surfacing or it is otherwise unfeasible to use ground pins e.g. due to the presence of underground services, the stabiliser struts should be mounted on a block tray (Figure 3b).

6.2.2.4 All-weather notices should be attached to the barrier with words such as:

‘CONSTRUCTION EXCLUSION ZONE – NO ACCESS’

6.2.4 Additional Precautions Outside the Exclusion Zone

6.2.4.1 Planning of site operations should take sufficient account of wide loads, tool loads and mobile plant with booms, jeeps and counterweights (including drilling rigs) in order that they can operate without coming into contact with retained trees. Such contact can result in serious damage to the trees and might make their safe retention impossible consequently, any transits or traversal plants in proximity to trees should be conducted under the supervision of her banksman, to ensure that adequate clearance from trees is maintained at all times. Access facilitation for union should be undertaken where necessary to maintain its clearance who stop.

Figure 2 Default specification for protective barrier

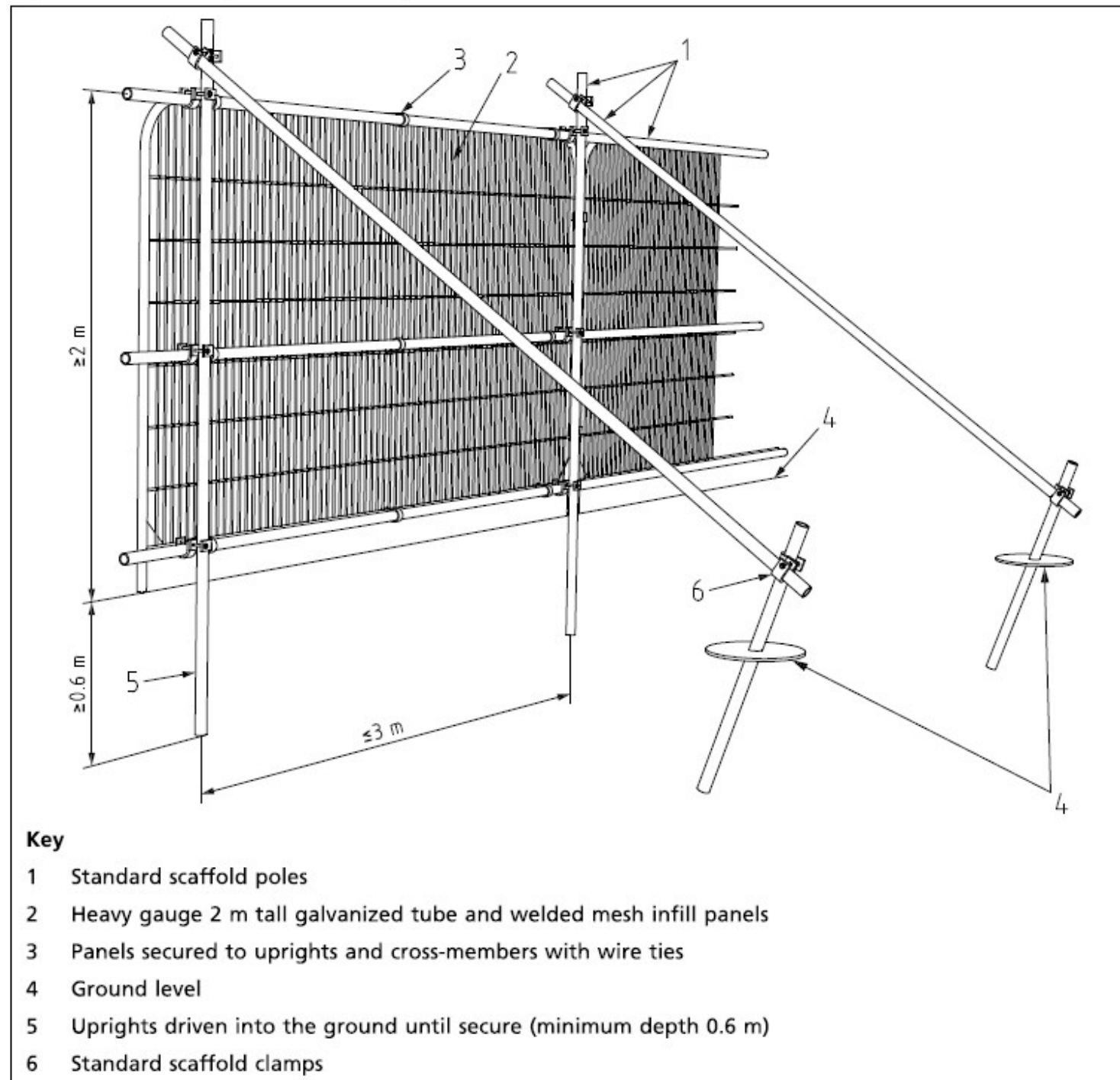
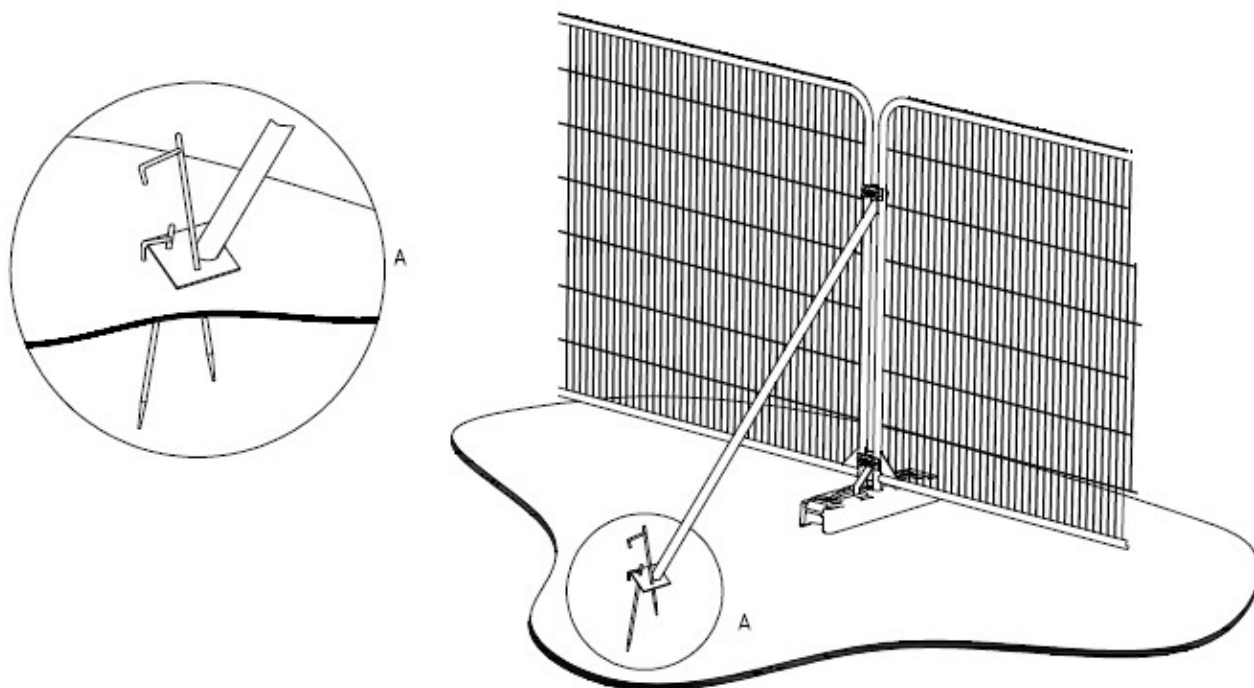
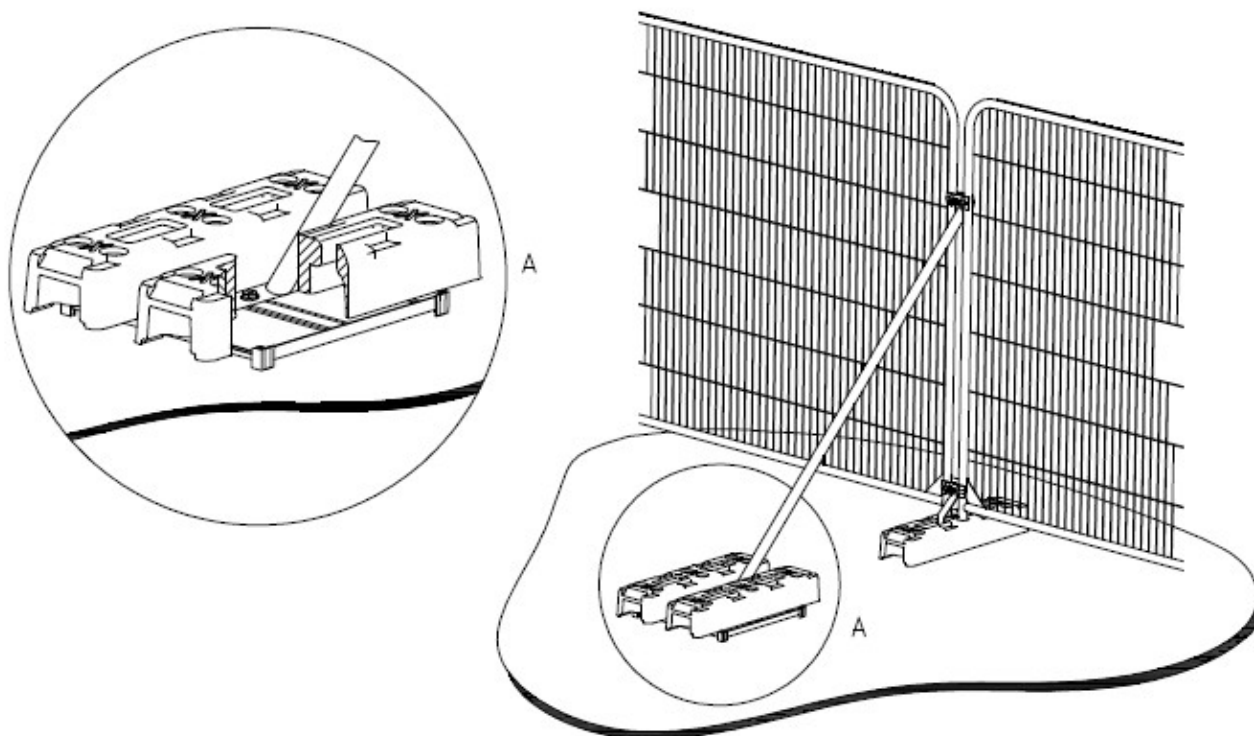


Figure 3 Examples of above-ground stabilizing systems



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray