## 1375 Moor Row, Whitehaven – Washington Homes October 2024

Arboriculturist Method Statement – to BS5837

The development consists of the erection of 19 No new build dwellings on a planning consented site. The Reserved Matters Application is accompanied with a site layout plan & landscape plan.

The site is bounded by a mature hedge line to the Eastern boundary with the planting sited within land owned by Cumberland Council and forming a sports field

It is proposed to keep all construction activities away from this boundary where possible and to avoid compaction of tree roots and hedges. A secure temporary physical boundary will be placed between the construction works and this boundary, this will be achieved in the following manner.

### **Tree Protection Fences**

With regard to barriers erected to protect the retained trees, Section 6.2.2.1 of the standard states:

'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.'

'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 m 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 project arboriculturist that provides an equal level of protection. Such alternatives could include the attachment of the panels to a free-standing scaffold support framework.'

A diagram of a tree protection barrier based default specification shown in BS 5837 (2012) is shown below : -



TREE PROTECTION MEASURES Syke Road, Wigton

### **Ground Protection**

With regard to protecting the soil within the RPA from compaction, Section 6.2.3.3 of BS 5837 (2012) states:

'New temporary ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil.

NOTE The ground protection might comprise one of the following:

a) for pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression- resistant layer (e.g. 100 mm depth of woodchip), laid onto a geotextile membrane;

b) for pedestrian-operated plant up to a gross weight of 2t, proprietary, interlinked ground protection boards placed on top of a compression-resistant layer (e.g. 150 mm depth of woodchip), laid onto a geotextile membrane;

c) for wheeled or tracked construction traffic exceeding 2 t gross weight, an alternative system (e.g. proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected.'

It is not anticipated that item c) will be applicable given the size of the site and nature of construction activities close to the boundary.

# Construction within the RPA

'The use of traditional strip footings can result in extensive root loss and should be avoided. The insertion of specially engineered structures within RPAs may be justified if this enables the retention of a good quality tree that would otherwise be lost (usually categories A or B). Designs for foundations that would minimize adverse impact on trees should include particular attention to existing levels, proposed finished levels and cross-sectional details. In order to arrive at a suitable solution, site-specific and specialist advice regarding foundation design should be sought from the project arboriculturist and an engineer. In shrinkable soils, the foundation design should take account of the risk of indirect damage'

No properties are to be constructed within any RPA areas therefore there will be no requirement in consideration of strip footings in this area. As part of the planning requirements the LPA are requesting the installation of a Ball Fence on / close to the boundary line, we have established that these will be completed with localised pad foundations and as such subject to final sizing will be compliant with works within the RPA. The design of the foundation pads for the fence will be set out to mitigate the impact on the RPA's where possible.

# Temporary ground protection

The ground within the RPAs of retained trees should be protected throughout the project from compaction and contamination. If required due to the erection of the Ball Fence the following will be considered for use.

BS 5837 (2012) recommends using a three-dimensional cellular confinement system, such as:

- Cellweb http://www.geosyn.co.uk/product/cellweb-tree-rootprotection (accessed 31/05/19);
- Geocell http://www.terram.com/products/geocells/tree-rootprotection- geocell.html (accessed 31/05/19); or
- Treeguard www.civilsandlintels.co.uk/wpcontent/uploads/2018/11/Centurion- Brochure.pdf accessed 31/05/19).

# Design and construction considerations

• Construction processes and site operations can adversely affect trees in many ways. It would be beneficial for all members of the project

team to be aware of tree protection recommendations contained within this report. This will avoid unnecessary damage to retained trees

## Temporary tree protection barriers

- Temporary tree protection barriers should be erected outside the RPAs and canopies of retained trees unless the trees and soil within their RPAs can be protected by other means. Attached below is a Tree Protection Plan that shows suggested locations of temporary tree protection barriers. These barriers must be robust enough to withstand impacts from machinery and plant that will operate close to them
- The protective barriers should be erected prior to any other development activity taking place and remain in-situ for the duration of the construction phase and should not be moved without the written consent of the LPA or until the completion of construction activity.

