

CONSTRUCTION PHASE HAZARD IDENTIFICATION
In accordance with the Construction
(Design and Management) Regulations 2015

The hazard sign is a notification to other designers and contractors of foreseeable exceptional risks which could not be fully mitigated or removed by design and are beyond those which could be reasonably expected to be identified by a competent person as defined in the Construction (Design and Management) Regulations 2015.

DRAWING REVIEWED	YES
EXCEPTIONAL RISKS MITIGATION	None or see warning triangle

EXISTING TREES

Retained and protected in accordance with 'BS 5837-2012: Trees in relation to construction'. All trees that are being retained on site should be protected by barriers and/or ground protection 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. Where, due to site constraints, construction activity cannot be fully or permanently excluded in this manner from all or part of a tree's RPA, appropriate ground protection should be installed.

The protected area should be regarded as sacrosanct, and, once installed, barriers and ground protection should not be removed or altered without prior approval from the local planning authority Arboricultural Officer.

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

Work within Root Protection Area to be in accordance with 'BS 5837-2012':

GROUND PROTECTION DURING DEMOLITION AND CONSTRUCTION REFER TO FIG. 3 AND 4, AND PLAN FOR EXTENT OF GROUND PROTECTION.
Where construction working space or temporary construction access is justified within the RPA, this should be facilitated by a set-back in the alignment of the tree protection barrier. In such areas, suitable existing hard surfacing that is not proposed for re-use as part of the finished design should be retained to act as temporary ground protection during construction, rather than being removed during demolition. The suitability of such surfacing for this purpose should be evaluated by the project arboriculturist and an engineer as appropriate.

Where the set-back of the tree protection barrier would expose unmade ground to construction damage, new temporary ground protection should be installed as part of the implementation of physical tree protection measures prior to work starting on site. 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:

- 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;
- for pedestrian-operated plant up to a gross weight of 2t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150 mm depth of woodchip), laid onto a geotextile membrane;
- for wheeled or tracked construction traffic exceeding 2t 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.

In all cases, the objective should be to avoid compaction of the soil, which can arise from the single passage of a heavy vehicle, especially in wet conditions, so that tree root functions remain unimpaired.

ADDITIONAL PRECAUTIONS OUTSIDE THE EXCLUSION ZONE

Planning of site operations should take sufficient account of wide loads, tall loads and plant with booms, jibs 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 transit or traverse of plant in proximity to trees should be conducted under the supervision of a banksman, to ensure that adequate clearance from trees is maintained at all times. Access facilitation pruning should be undertaken where necessary to maintain this clearance.

AVOIDING PHYSICAL DAMAGE TO THE ROOTS DURING DEMOLITION OR CONSTRUCTION

To avoid damage to tree roots, existing ground levels should be retained within the RPA. Intrusion into soil (other than for within the RPA is generally not acceptable, and topsoil within it should be retained in situ. However, limited manual excavation within the RPA might be acceptable, subject to justification. Such excavation should be undertaken carefully, using hand-held tools and preferably by compressed air soil displacement. Roots, whilst exposed, should immediately be wrapped or covered to prevent desiccation and to protect them from rapid temperature changes. Any wrapping should be removed prior to backfilling, which should take place as soon as possible.

Roots smaller than 25mm diameter may be pruned back, making a clean cut with a suitable sharp tool (e.g. bypass secateurs or handsaw), except where they occur in clumps. Roots occurring in clumps or of 25 mm diameter and over should be severed only following consultation with an arboriculturist, as such roots might be essential to the tree's health and stability.

Prior to backfilling, retained roots should be surrounded with topsoil or uncompacted sharp sand (builders' sand should not be used because of its high salt content, which is toxic to tree or other loose inert granular fill, before soil or other suitable material is replaced. This material should be free of contaminants and other foreign objects potentially injurious to tree roots.

TREE PROTECTION DURING DEMOLITION

Where demolition is proposed on a site where trees are to be retained, access facilitation pruning should be undertaken as necessary to prevent injurious contact between demolition plant and the tree(s). In some cases, working space may be provided by temporarily tying back tree branches. Pruning or tying should be undertaken in accordance with a specification prepared by an arboriculturist.

NOTE: The local authority will be able to advise whether the trees are under statutory protection such that consent for tree works might be required.

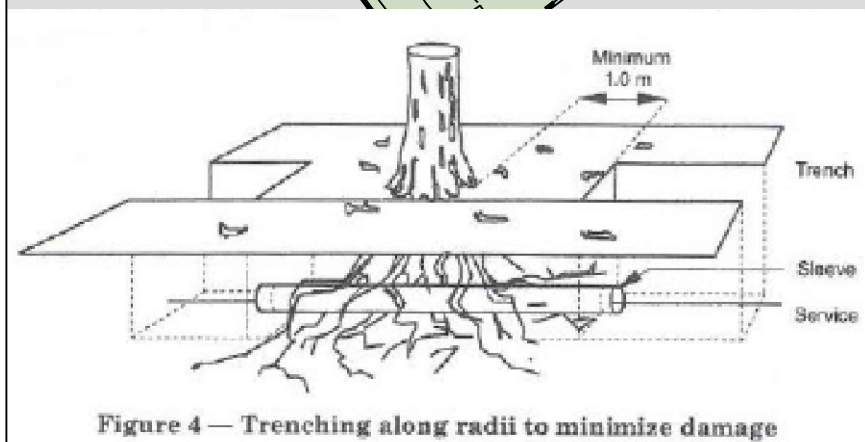
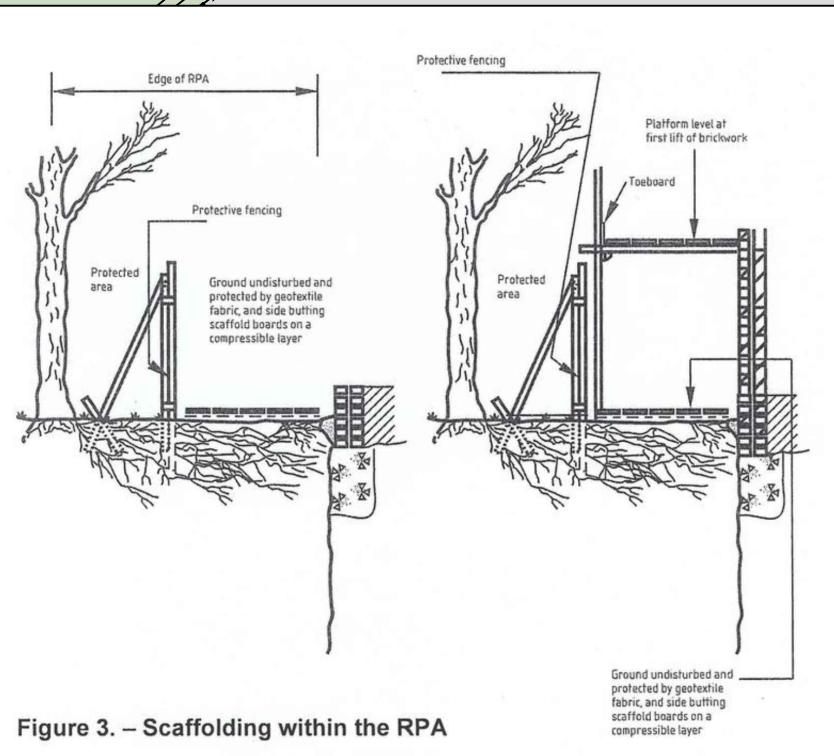
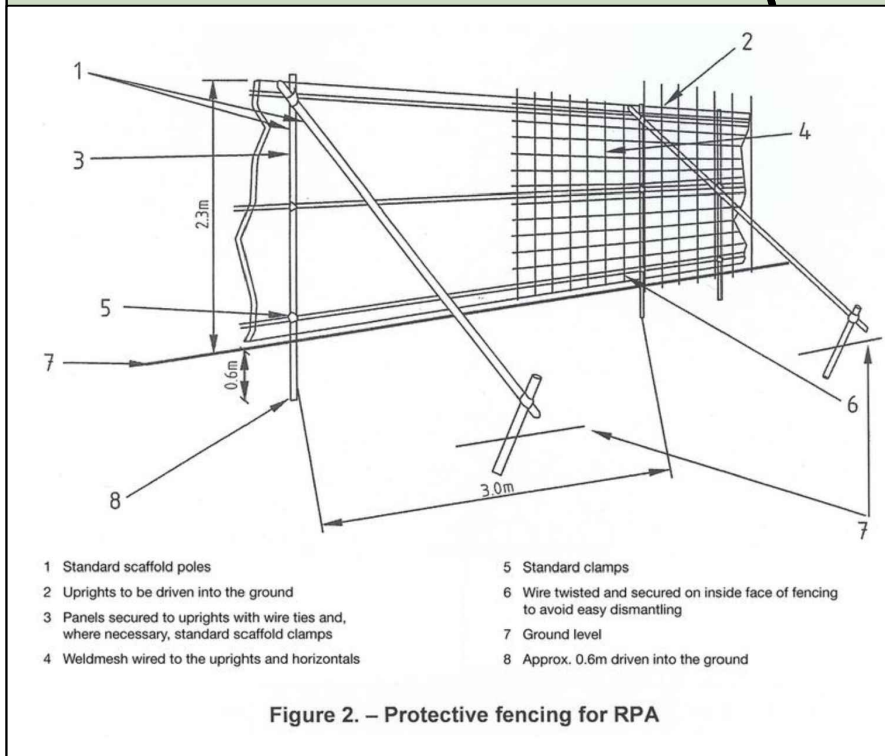
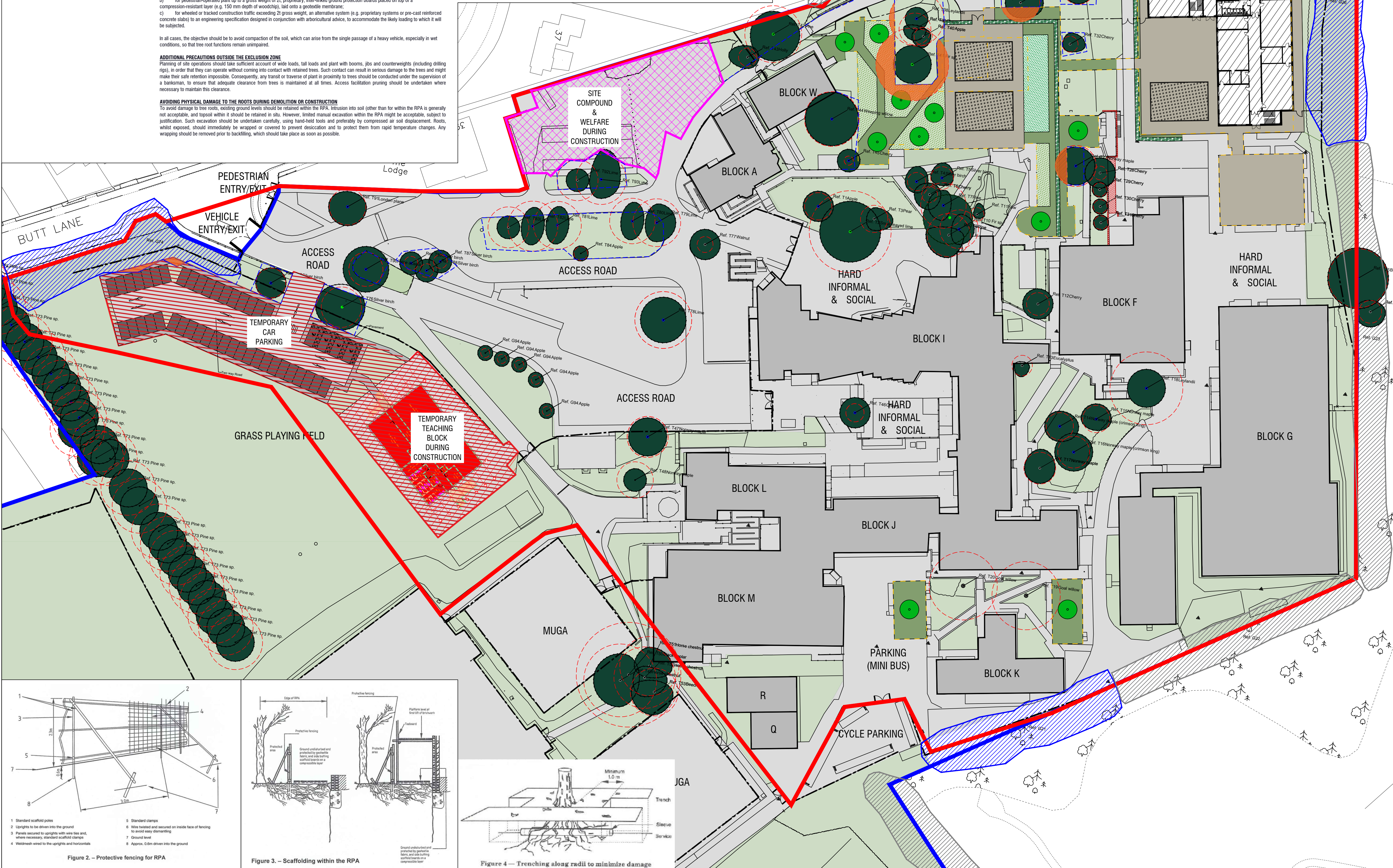
When demolishing a structure (including underground structures) within what would otherwise be the RPA, barriers should be erected, and ground protection installed, to protect the underlying soil to the edge of the existing structure.

All plant and vehicles engaged in demolition works should either operate outside the RPA, or run on the ground protection. Where such ground protection is required, it should be installed prior to commencement of operations. Where trees stand adjacent to structures to be removed, the demolition should be undertaken inwards within the footprint of the existing building (often referred to as "top down, pull back").

NOTE: Where there is a significant build-up of dust on the foliage, it might be necessary to hose down the tree(s).

The advice of an arboriculturist should be sought where underground structures present within the RPA are, or will become, redundant. In general it is preferable to leave such structures in situ, as their removal could damage adjacent tree roots.

Where an existing hard surface is scheduled for removal, care should be taken not to disturb tree roots that might be present beneath it. Hand-held tools or appropriate machinery should be used (under arboricultural supervision) to remove the existing surface, working backwards over the area, so that the machine is not moving over the exposed ground. If a new hard surface is to be laid, it might be preferable to leave any existing sub-base in situ, augmenting it where required.



THIS DRAWING MUST NOT BE SOLD

CONTRACTOR SHALL CHECK ALL DIMENSIONS ON SITE

NOTES:

- This drawing should be read in conjunction with all other relevant details, drawings and specifications.
- All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the Architect & Engineer for verification. Forwarded dimensions only are to be taken from this drawing.
- The DWG file is issued for the purposes of construction only and do not represent formal drawings and are not to be printed in any form. Formal issue of drawings is via DWG. Adobe PDF files and/or hard copies and their associated information issue sheets.
- Note that all care has been taken with the report of DWG files and their content, but we recommend that you make due dimensional checks before using any DWG file information.
- Any errors found are to be reported to MAC Consulting immediately.
- All levels are shown in metres above Ordnance Datum (m AOD).
- In the event of any contradiction between this drawing and the specification, then the contractor shall seek clarification from the landscape architect before proceeding.
- The works on site affect statutory undertakers apparatus, where the contractor is required to verify the location and depth of all such apparatus prior to commencement of work and to take any precautions necessary when working in the vicinity of apparatus.

TREE PROTECTION PLAN KEY

- HINKLEY ACADEMY SCHOOL SITE BOUNDARY
- AREA OF PROPOSED WORKS
- APPLICATION SITE BOUNDARY
- AREA OF BUILDINGS TO BE DEMOLISHED
- EXISTING CAT A TREE RETAINED
- EXISTING CAT B TREE RETAINED
- EXISTING CAT C TREE RETAINED
- EXISTING CAT U TREE REMOVED
- EXISTING TREE GROUP
- HATCH COLOUR DENOTES CATEGORY BS5837
- ROOT PROTECTION AREA
- PROPOSED TREE PROTECTION FENCE
- Refer Fig 2 from BS5837:2012
- GROUND PROTECTION
- Refer Figures 3 and 4 from BS5837:2012
- Category A - high quality
- Category B - moderate quality
- Category C - low quality
- Refer to tree survey
- 551775p1Sep21_TCPlex_FV1

THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH THE FOLLOWING DOCUMENTS:

- SPL0001-MAC-XX-XX-DRL-4-0004-Site Landscape Plan Sheet 1
- SPL0001-MAC-XX-XX-DRL-4-0005-Site Landscape Plan Sheet 2
- SPL0001-MAC-XX-XX-DRL-4-0006-Site Landscape Plan Sheet 3
- SPL0001-MAC-XX-XX-1-1-0001-Outline Landscape and Planting Specification

0 12 24 Metres

N

NO.	REVISION	DATE	BY	CHK
001	ISSUED FOR CONSTRUCTION	23/11/2022	MS	MS
002	ISSUED FOR CONSTRUCTION	23/11/2022	MS	MS
003	ISSUED FOR CONSTRUCTION	23/11/2022	MS	MS
004	ISSUED FOR CONSTRUCTION	23/11/2022	MS	MS
005	ISSUED FOR CONSTRUCTION	23/11/2022	MS	MS

DRAWING TITLE: TREE PROTECTION PLAN

DRAWING NO: A1

SCALE: 1:500

DATE: 23/11/2022

DRAWN BY: MC

CHECKED BY: MS

STATUS: S3

CLIENT: REDS10

PROJECT: HINKLEY ACADEMY
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