

Scale: 1:200

Warning Sign

KEEP OUT

(0758)

(0759)

**CONSTRUCTION
EXCLUSION ZONE
NO ACCESS**

To be attached to Tree Protection Fencing
every 3 metres facing the site

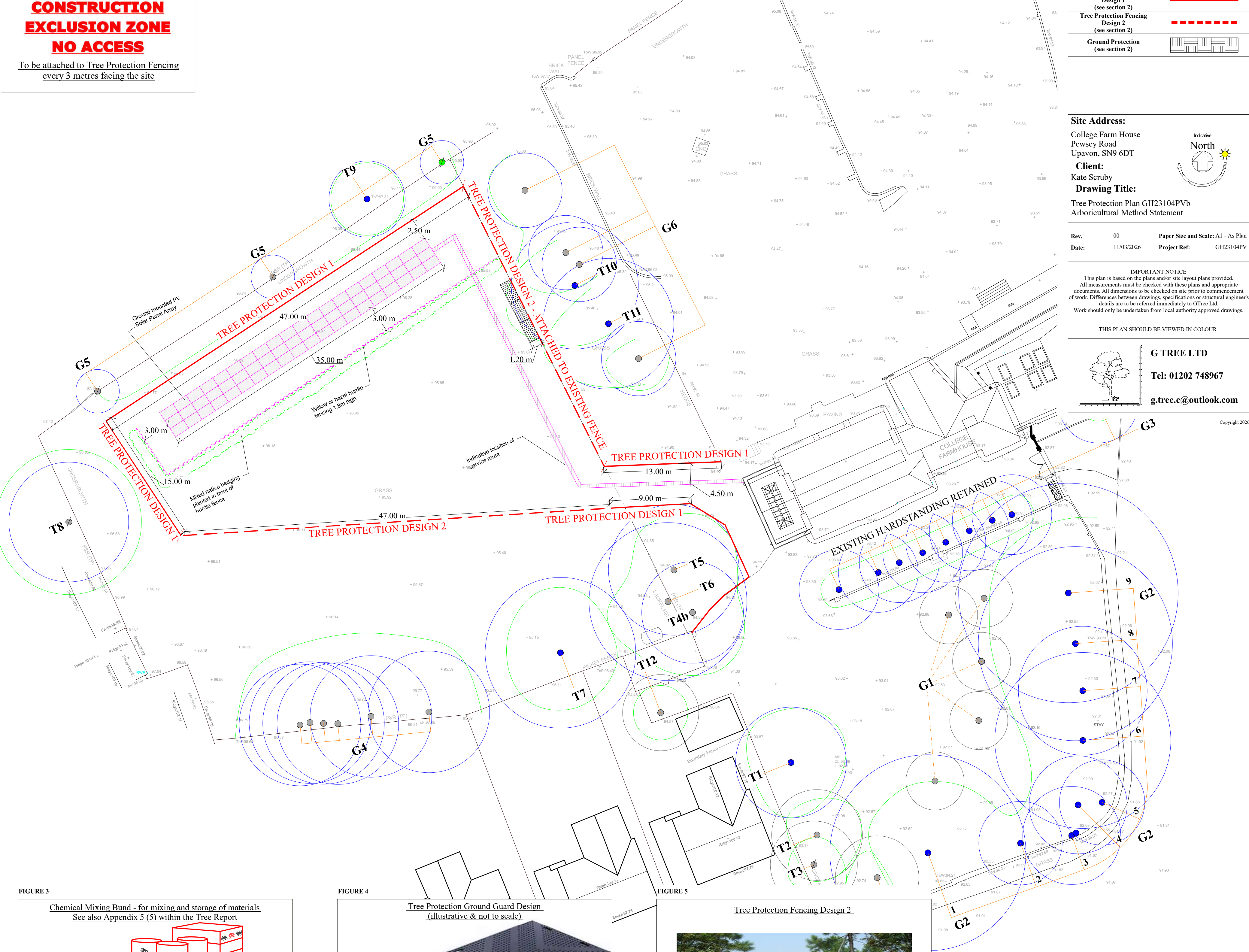
Tree Protection Fencing Design 1
(illustrative & not to scale)

Heras Panel

Heras Panel

Panel Stabiliser secured with Steel Pins

Rubber or Plastic Concrete-filled feet secured with Steel Pins



Chemical Mixing Bund - for mixing and storage of materials
See also Appendix 5 (5) within the Tree Report



The diagram shows a 3D perspective view of a chemical mixing bund. It is a rectangular concrete structure with a grid of reinforcement bars on top. Inside the bund are three drums: two smaller ones in the front and one larger one behind them. The drums have hazard symbols: a flame (flammable), a skull and crossbones (toxic), and a plant with a lightning bolt (corrosive). The bund is surrounded by a series of black, saw-tooth shaped barriers. The ground outside the bund is shaded with blue diagonal lines.

Required when working in close proximity of
Tree Protection Areas

Tree Protection Ground Guard Design
(illustrative & not to scale)

Secured to ground with steel pins or
bound together with heavy duty cable ties

Example thickness
 10 mm = 5 tonnes
 12 mm = 15 - 20 tonnes
 15 mm = <80 tonnes

Check with supplier product is fit
for your specific usage

Tree Work Schedule: Preliminary and development recommendations for tree management (see plan GH23105PvA)

Tree Constraints Plan: Specifies the Root Protection Area (RPA) in accordance with British Standard 5837:2012

Tree Protection Plan: Provides information about the proposed development, identifies the locations for Tree Protection fencing, and describes Ground Protection measures to preserve the Root Protection Area (RPA) of all retained trees

Arboricultural Impact Assessment: Evaluates the trees in proximity to the proposed development, determining the potential implications and viability of integrating the planned project with existing vegetation and trees

Arboricultural Method Statement: Outlines the procedures for safeguarding existing trees throughout both demolition and construction activities

Site description

To collect digital measurements, a Leica Disto D8 laser measurer was used. The topographical survey supplied did not include all trees within the site and adjacent sites. These tree locations have been plotted using the laser measurer. Thus, no guarantee can be given for their precise location. There are twelve individual and six groups of trees within the site, of which only seven trees and two tree groups are considered a constraint upon this proposal. All trees, including those which grow outside the site's curtilage, are detailed within this report. The trees, visible from public vantage points, are to be considered an amenity asset within the localised built environment. The collection of trees is visible from a distance from public vantage points. Thus, the trees are considered an asset within the rural character of the area. The loss of trees within this area could be accommodated in small numbers, if replacement trees are planted, and the canopy cover future proofed. An open paddock occupies the planned proposal site. The site's topography consists of an incline from south to north. All tree dimensions are measured where possible and estimated where there is lack of access.

Construction of Photovoltaic (PV) Panels and the installation of natural visual screening (hurdle fence <1.8 m & species rich native hedgerow)

None

No trees require removal, thus there will be no detrimental effect on the local character and visual amenity in relation to trees

1. Phased Development in relation to Tree Protection – in order of events A to F	
A.	A person with relevant experience, must design details leading to final PV service routes. These must include accurate locations of installation and, if proposed within or adjacent to tree RPA, Construction Method Statements for this specific operation. Agreement of the designs should be subject to Conditions within the Planning Application Approved Decision Notice and discharged prior to commencement of construction. Alternatively, agreement of designs should be acquired from LPA Arboricultural Officer and/or Arboricultural Consultant in writing, prior to commencement of construction.
B.	Installation of Tree Protection measures - see section 2
C.	Pre-commencement meeting, post installation of Tree Protection measures including chemical storage/mixing bund, (detailed within Figures 1, 2, 3 & 4, section 2 and plan GH23104PVb), and prior to construction. The pre-commencement meeting should be held and attended by developer's Arboricultural Consultant and designated site foreman to discuss details of the working procedures. A representative from the Local Planning Authority may request attendance at the meeting.
D.	Any time where access (person or plant) is needed within Tree Protection areas and/or in the event of any arboriculturally sensitive operation which may compromise trees within this or adjacent sites Arboricultural Supervision will be required
E.	Main construction & main construction completion
F.	Removal of Tree Protection measures - see section 3
	Rd = Arboricultural Supervision required
It is the responsibility of the project manager to arrange Arboricultural Supervision. The project manager will give the Arboricultural Consultant at least 48 hours' written notice prior to any Arboricultural Supervision activity. If there is a specific request from a representative of the LPA wishing to attend, 7 days' notice shall be required. An Arboricultural Supervision statement will be submitted to the Local Planning Authority, in writing after each supervision event.	

Tree Protection fencing Design 1 for construction and demolition, requires Heras panels with stabilisers, on rubber or plastic concrete-filled feet. For fencing design and specific locations see plan GH23104PVb and Figure 2. Laminated Construction Exclusion signs (Figure 1) should be placed upon side of fencing facing development at 3 metre intervals.

Tree Protection fencing Design 2 for construction and demolition, requires orange safety fencing, secured to steel pins every 3 m. For fencing design and specific locations, see plan GH23104PvB and Figure 5. Laminated Construction Exclusion signs (Figure 1) should be placed upon the side of the fencing, facing the development at 3 metre intervals.

Heavy loading Ground Protection in the form of rigid Ground Guards will be used, see Figure 4. For specific locations, see plan GH23104PVb. They will be laid on top of base layer of Geotextile membrane to separate Ground Protection from soil. The Geotextile separation fabric should be designed not to be punctured, ripped, or allow fines (e.g. fine particles, sand, broken stone, brick, soil etc.) to penetrate. Ground Guards should be securely attached (using the product specification), both together and to existing ground, having first established exact location of any underground services.

Chemical storage/mixing & welfare units Storage and mixing of chemicals will be required near Root Protection Areas, where use of a water-tight and chemical resistant bund will be essential, to avoid run-off from toxic materials, see Figure 3 for design details. Site cabins / welfare units must be located outside tree Root Protection Areas, unless otherwise agreed. All temporary services should run above ground or be contained within the facility and managed as appropriate.

Working Method: During demolition and construction, Tree Protection measures should not be removed or moved at any stage, unless agreed upon by representative of Local Planning Authority and/or acting site Arboricultural Consultant, or unless otherwise stated within this report.

Throughout the proposal, it is important to monitor condition of Tree Protective measures, assess whether they are still fit for purpose and meet design standard within this report. It is recommended that Tree Protection be added to the on-site risk assessment and protective fencing should be subject to Fixed Scaffolding Safety Checklist.

Reason: Retained trees and associated soil structure within this report take priority. Entering within areas designated for construction exclusion, will inevitably compromise health of valuable trees. Barriers should be fit for excluding construction activity and appropriate to degree and proximity of work taking place around retained trees.

Tree Protection may be removed only after project completion, following phased development, or with agreement from the Arboricultural Consultant. Written consent from the Local Planning Authority may also be required.

- In line with managing COSH (Control of Substances Hazardous to Health) in construction, environmental protection and preservation is an important factor in relation to trees. Spillages of cement or any other chemical within the soil occupied by tree roots or adjacent to trees can compromise tree health (including other species of fauna & flora). Adequate control measures must be in place to avoid soil contamination. As the trees within this site may be protected by law, failure to manage chemical spillage could result in prosecution of both operatives and managers.
- This report does not give guidance on building near trees, hedgerows, and shrubs in shrinkable soils [National House Building Council (NHBC) guidance in relation to trees, chapter 4.2], as this should be addressed during the Building Regulations phase, unless otherwise requested.
- The Tree Protection measures within this document and any other document must be included in any Construction Method Statement and Traffic Management Plan, relating to this site.

- 1) The tree survey has been carried out in relation to British Standard 5837-2012 'Trees in relation to design, demolition and construction – Recommendations' and may also assist in the landowner's duty under the Occupier's Liability Act 1984 and Common Law. To fully comply with the Occupier's Liability Act, a tree hazard assessment survey of all trees on the site should be conducted. This tree survey was carried out from ground level, identifying significant tree features which may have a significant bearing upon the condition and management of the trees, giving appropriate recommendations in relation to trees and development.
- 2) Trees are living organisms subject to change. It is strongly recommended that they are regularly inspected for this reason.
- 3) No guarantee can be given as to the absolute safety or otherwise of any individual trees. Extreme climatic events can cause damage to (or make unsafe) apparently healthy trees.
- 4) This report remains valid only for three years from the date issued and applies solely to the proposed construction described in these documents.