YEW TREE AND GARDENS

– Land at Pendle Street East, Sabden, Lancashire.

ARBORICULTURAL IMPACT ASSESSMENT
FOR PROPOSED DWELLINGS

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CONTENTS

1. SITE

A. SITE DESCRIPTION

1. The proposed development site is comprised of a single enclosed field at Pendle Street East, Sabden, Lancashire.

2. The development area is as indicated in Appendix 5: Tree Constraints Plan and tree stock is as detailed within Appendix 1: Tree Schedule and Appendix 2: Tree Location Plan. The proposed development is based upon the construction of sixteen semi-detached and detached dwellings with access routes and associated hard / soft landscaping.

3. The survey area consists of the boundaries of a single enclosed field of permanent grazing cover. The site is bounded by residential dwellings to the north, maintained grounds to the west, a mixture of dwellings and a public footpath to the east and a public footpath to the south.

4. Tree stock is present within and adjacent to the site, it is limited in scope and size. No significant tree stock is located within the site. Two more established individual trees are located to the south of the site boundary and adjacent footpath.

B. SURVEY DETAILS

1. The site was surveyed on 18/05/2023, tree heights were estimated via use of clinometer (Suunto PM-5), measurements of DBH taken at 1.5m height and crown spread was taken by ground measurements. The position of tree references within the site are taken from the supplied topographic survey. All images were taken at the date with Samsung A32. Sun positions were estimated on site via Sun Surveyor software. Weather conditions were overcast with partial sun and light to no wind.

2. All surveying of tree stock on the site was carried out visually from the ground only. Where ivy cover was encountered on trees then only limited visual checking of structure and potential defects was possible.

3. At the time of surveying all trees were recorded on standard tree record sheets, see Appendix 1: Tree Schedule. Trees were surveyed throughout the entire site, detailed individual details were recorded for all significant trees within the existing site. Where larger numbers of smaller trees were encountered in the survey area these are included as a Group record which includes the approximate height range and maximum Diameter at Breast Height (DBH) of trees within the group, these groups are referred to by group i.e. Group 2 (G2).

4. The surveyed trees are categorized by the standard retention categories as defined in BS5837:2012. Such retention categories seek to inform the design process of trees which may be worthy of consideration for inclusion within the proposed development. All work recommendations relate to trees within the context of the current site layout and usage.

5. **Note**: the report and schedule recommendations form components of a development survey and are not intended to be used as a specific tree hazard assessment

6. Trees requiring removal to facilitate the proposed development or which are unsuitable for retention are annotated in red on the Tree Constraints Plan and may be further identified in the work recommendation section of the Tree Schedule.

2. PROPOSED DEVELOPMENT

A. PROPOSED DEVELOPMENT

1. The proposed development plan is for the construction of residential dwellings with vehicle access from Pendle Street East.

2. Areas of soft and hard landscaping are included within the development proposal. The proposed scheme is illustrated in Appendix 5: Tree Constraints Plan.

3. TREE PRESERVATION ORDERS AND CONSERVATION AREAS

A. SITE DESCRIPTION

1. The site is not located within a Conservation Area.

2. We have undertaken a check of the online Ribble Valley Tree Preservation Orders (TPO) list, this does not show any TPO is present at the site address.

3. The status of all trees within and adjacent to the site should be verified prior to works being undertaken on them.

4. It should be noted that trees located outside of maintained grounds and not covered by an active TPO are subject to the standard Felling License constraints imposed by the Forestry Commission. These regulations restrict the volume of timber which may be removed in a calendar quarter without a felling licence to 5 cubic metres.

4. IMPACT OF DEVELOPMENT ON TREE STOCK

A. CURRENT TREE STOCK

1. Trees which are located within or adjacent to the development site boundaries are detailed in the schedule Appendix 1 and are as follows.

2. Trees within the site are Group G1, G2 and tree T3. None of these groups or trees are significant mature individuals. G1 is comprised of semi mature Common Beech and Goat willow, G2 is comprised of two Goat Willow, two Apples and a boundary hedge, T3 is a young Norway Maple in the eastern section of the site.

3. Tree reference T2 is an early mature Oak located to the south of the public footpath, T3 is an early mature Common Beech located on the same footpath boundary.

4. No other trees are located within or adjacent to the development area. Further small trees are located along the southern edge of the public footpath but these are outside of any development zones.

4. IMPACT OF DEVELOPMENT ON TREE STOCK (CONT.)

B. PROPOSED DEVELOPMENT

1. We have reviewed the supplied proposed layout and this forms the basis of our Tree Constraints Plan (see Appendix 5). The Tree Constraints Plan and the assessments contained below are based upon the proposed layout.

2. The proposed development will not impact upon the retention of any significant or notable trees or groups of trees.

3. Group G1, the two shrubby Goat Willows in G2 and the young Norway Maple T3 would require removal in the proposed development.

4. The removal of these small trees would not represent the loss of trees with significant retention values. Their removal can be mitigated by replacement planting in the development.

5. The hedge at the rear of G2 along with the two small Apples may be retained through the installation of a single section of protective fencing at the eastern edge of the group.

6. There would be no impact upon off site trees T1 and T2 to the south of the footpath. If the site garden boundary fence is installed initially then this would prevent any incursion onto the footpath and Root Protection Area. Similarly, if Heras site fencing is used along this boundary during construction it would serve as protection for these trees.

7. No other trees are located within the proximity of the proposed development area and no conflict with retained tress (either on site or off site) would be created by the proposed development.

5. SUGGESTED MITIGATION MEASURES

A. GUIDELINES

1. Guidance for the protection and retention of trees within the site.
2. Erection of protective fencing as indicated in Appendix 5: Tree Constraints Plan.
3. No material storage should take place in these areas.
4. No mixing of cement-based or other building materials should take place within the root protection area, no storage of fuels should take place within this area.
5. The tree protection must remain in place until work is completed and there is no risk to the RPAs
6. Once construction has been completed and the landscaping phase is complete the protective fencing may be removed.
7. No site specific guidelines in relation to construction.

B. PROTECTIVE FENCING

1. Once erected all protective fencing will be regarded as sacrosanct and will remain in place until the completion of the construction phase. It shall not be removed, relocated or breached at any time without consultation with the project arboriculturalist.
2. Protective fencing will be constructed of robust barriers fit for the purpose of excluding construction traffic from root protection areas. Details of appropriate fencing types are included in Appendix 6.
3. Signs will be affixed to every third panel stating ‘Tree Protection Area Keep Out’. See Appendix 6 for examples of signage.
4. All fencing will be securely affixed to avoid movement of fencing during the construction phase.
5. For the sections marked on Appendix 5 fences will be constructed of site fencing of ‘Heras’ type which must be securely braced with additional measures to prevent movement of the fence during construction. Where fences are located against an existing hedge with a limited RPA and no opportunity for external bracing then panels may be positioned outside the hedge canopy and secured to driven wooden fence posts.
6. Indicative positions for protective fencing are shown in purple on Appendix 5: Tree Constraints Plan

5. SUGGESTED MITIGATION MEASURES (CONTINUED)

C. GENERAL PRINCIPLES TO AVOID DAMAGE TO TREES.

1. Protective fencing installed to prevent mechanical damage to trees adjacent to the development.
2. An indicative list of recommended practices during construction phase is listed below:
3. Once installed tree protection must remain in place and be observed at all times.
4. No fires within 10m of the crown of any retained trees.
5. Soil levels in rooting areas to be retained with minimal level changes, no greater increases than 300mm from existing levels.
6. No cement mixing/washout to take place within 15m of any retained trees.
7. No chemicals, bitumen etc. to be stored within 10m of any retained trees.
8. Any spillage of fuel, chemicals or contaminated water occurring within 2m of the root protection areas to be reported to project supervisor.
9. No additional underground services have been indicated to us at this time but they may be safely routed to avoid rooting zones, if additional services require routing through the root zones of trees for retention then appropriate sub surface or hand trenching methods should be used and guidance sought prior to any works being undertaken. See BS3857:2012.

D. MITIGATION PLANTING.

A specific landscaping plan has not been produced to accompany the development.

The proposed layout includes indicative tree planting, an appropriate species selection based upon the indicative layout would provide mitigation for the limited tree removals required within the development and represent an increase from the existing tree stock within the site.

6. CONCLUSION / SUMMARY

1. Limited tree stock is located within and adjacent to the site boundaries.

2. All significant tree stock may be retained within the development.

3. A total of two groups of small trees and a single young tree, all in retention category C require removal. These removals can be mitigated by replacement planting.

4. The proposed tree removals could be mitigated by the planting of replacement trees as shown in the development plan. The use of appropriate trees species in suitable locations would allow longer term contribution than those requiring removal within the development.

5. The proposed development layout would not lead to an increase in pressure for future works / tree removals over the existing site usage.

6. Retained tree / hedge stock may be protected during the construction phase by standard tree protection fencing and suitable working methods / site management.

7. RECOMMENDATIONS

It is recommended that

1. The management of the development reflects the guidance contained within this report both for the management of trees for retention and the protection of same during the proposed development phase and that due consideration is given to the position of any development in relation to retained trees and the removal of trees which are unsuitable for long term retention from the site prior to any development.

Type	Name	Age	DBH	Height	1stB	N	E	S	W	Cond	Life Exp	Comments	Recommendations	RPR m	RPA m^2	Category
G1	Fagus sylvatica (Beech),Salix caprea (Goat Willow)	SM	110 Fs	5	0.5	4	4	4	4	Fair	10+	2 x young Beech and 2 x Goat Willow located adjacent to boundary fence. G1 extends 14m into site from S boundary	Would require removal in development	1.32	5.47	C2
G2	Crataegus monogyna (Hawthorn),Malus (Apple),Salix caprea (Goat Willow)	EM	150 ave	7	0	6	6	6	6	Fair	10+	Mixture of dense bramble scrub cover, 2 x shrubby formed self-seeded Goat Willow, 2 x Apple and section of semi maintained hedge along boundary	Goat Willow would require removal in development, hedge and Apple trees can be retained via protective fencing	1.8	10.18	C2
T1	Quercus petraea (Sessile Oak)	EM	240	12	1	4.5	4.5	4.5	4.5	Good	40+	Younger aged tree located on banking to S of footpath	Outside of development area an separated from it by public footpath. Site boundary fencing would serve as protection for T1	4.07	52.05	B2
H1	X Cupressocyparis leylandii (Leyland Cyp	EM	120 Est	2	0	0.5	0.5	0.5	0.5	Mix	10+	Garden boundary hedge, separated from site by close boarded fence	Would not be impacted upon by development, no requirement for specific tree protection measures	1.44	6.52	C2
T2	Fagus sylvatica (Beech)	EM	350	12	1	3.5	3.5	3.5	3.5	Fair	20+	Tree located on S side of footpath, stem bifurcates at 1.2m with tight angled union	Outside of development area an separated from it by public footpath. Site boundary fencing would serve as protection for T2	4.2	55.42	B2
T3	Acer platanoides (Norway Maple)	Y	65	3.5	0.5	1	1	1	1	Fair	20+	Young tree located in site, 4.5m from fence	Would require removal in development	0.78	1.91	C1

Appendix 1b : BS5837 Cascade chart

Table 1 **Cascade chart for tree quality assessment**

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see **4.5.7**.*			See Table 2
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	See Table 2
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	See Table 2
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	See Table 2

Tree Location Plan

Tree Locations by retention category
T3-NE
T3-SE
T3-C2
T2-U

Root Protection Area (radius)
- RPA Category A
- RPA Category B
- RPA Category C
- Category U tree unsuitable for retention

Restricted Root Potection Area (polygon)

Surveyed Canopy Extents

Estimated Shadow Plot (midsummer)

Project Title:
Pendle Street East
Date of Survey:
18/05/2023
Surveyor:

Date File Created:
24/05/2023
1:500

Yew Tree & Garden
Yew Tree House
Hale Milnthorpe
Cumbria LA7 7BJ

RPA only indicated for significant trees. Small garden trees and juvenile specimens may not be indicated
Retention Categories:
As defined in BS5837: 2012
RPA:
Plotted from individual RPA sheets.
Where restricted rooting conditions are present RPA is also plotted as an area polygon

Project
Pendle Street East Sabden

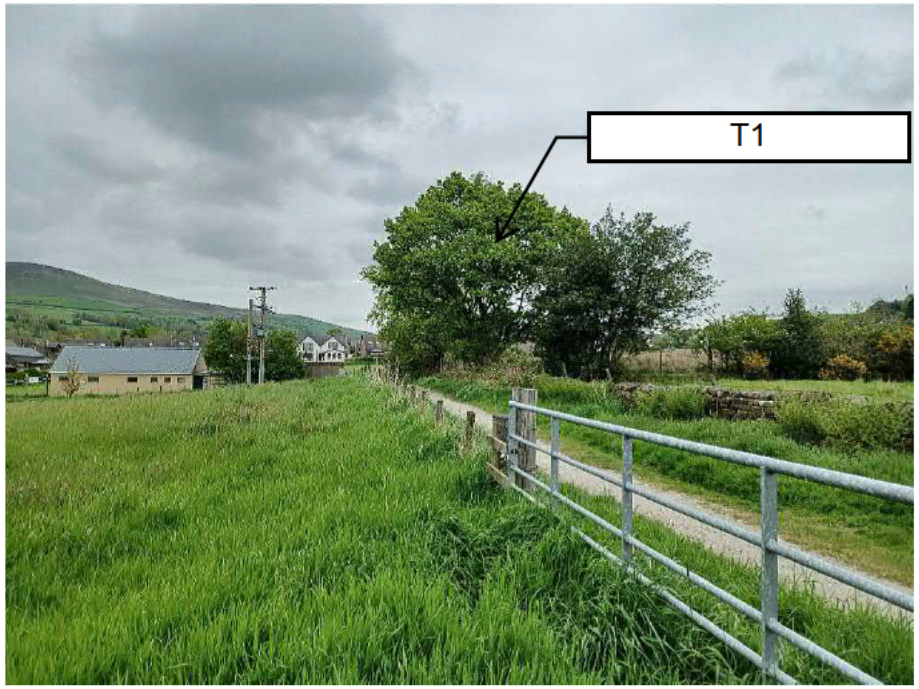
Title
Site Plan and Street Elevation

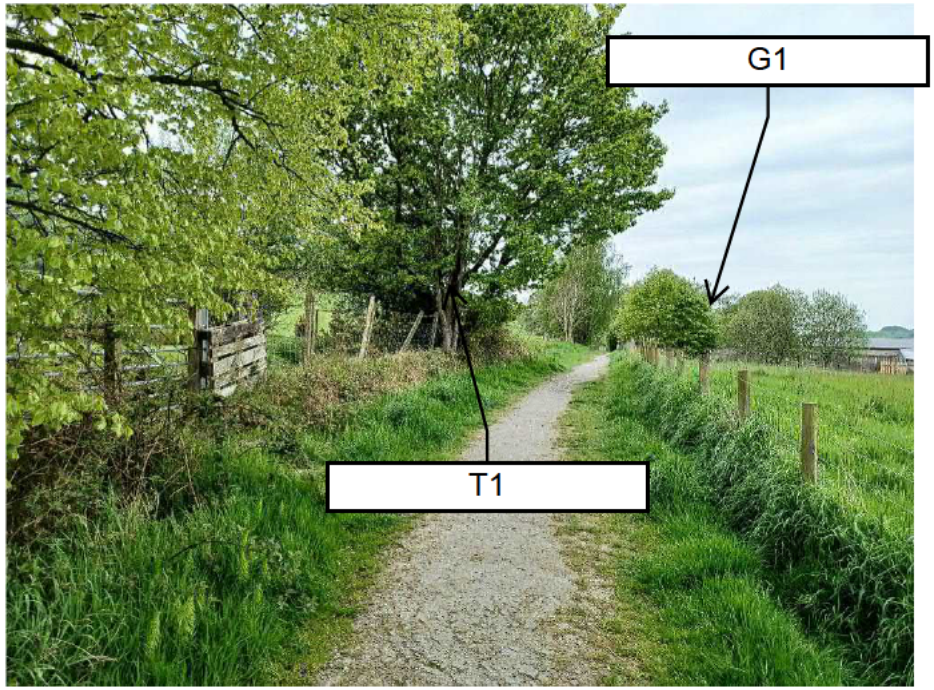
Scale @ A3	Date	Ref	Drawn
1:500	April 2023	179	JSWR

Drg No **179/PSE/SP** Rev **-**

Appendix 3: Images

Pendle Street East





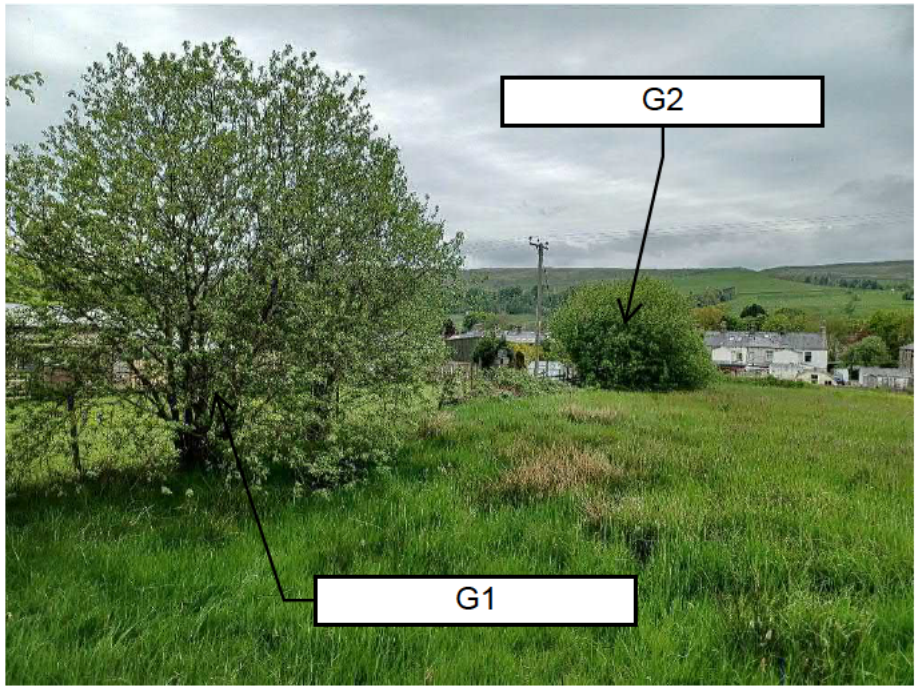
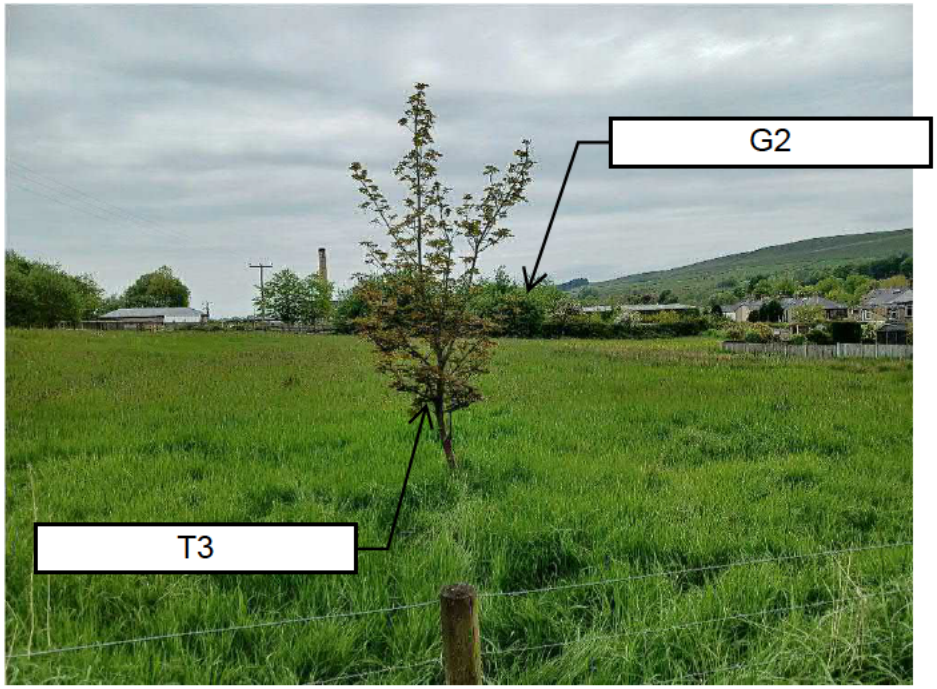
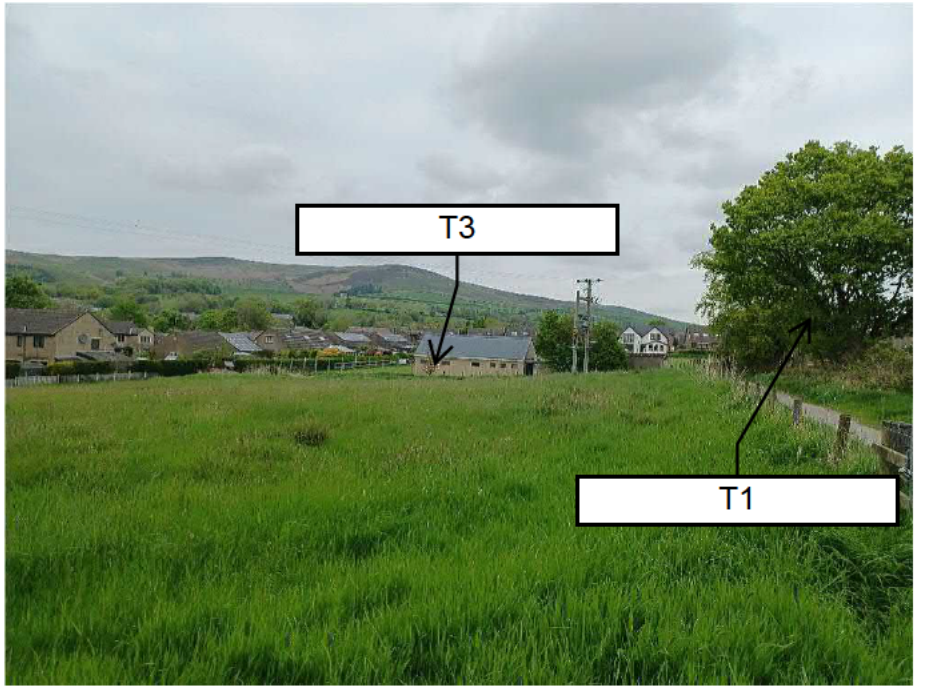


Image date: 18/05/2023

Appendix 3: Images

Pendle Street East





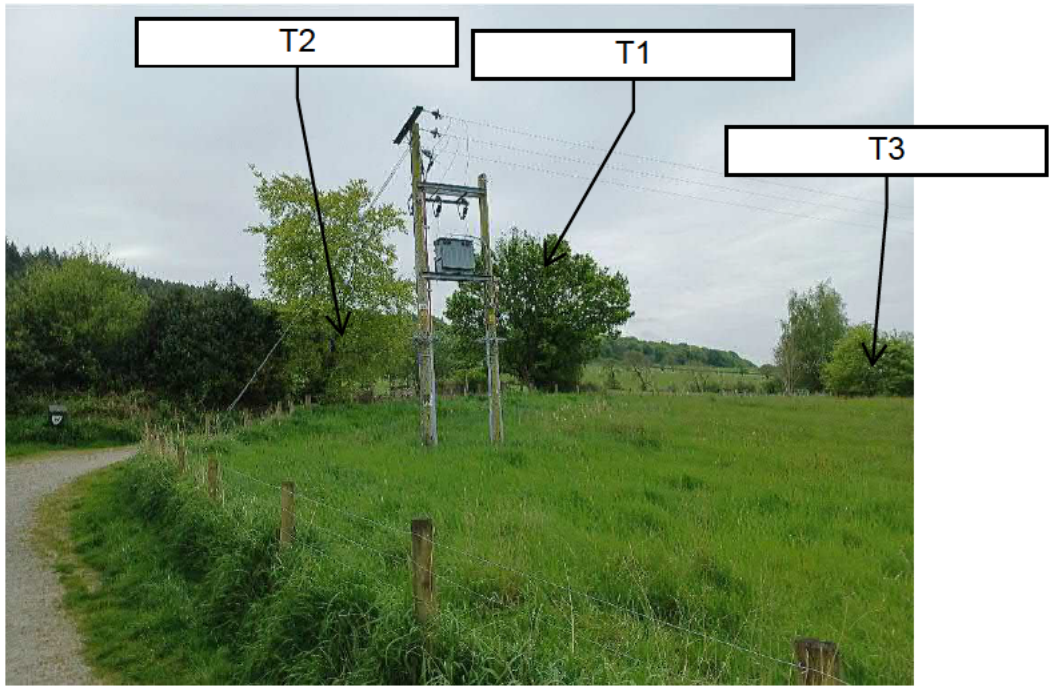


Image date: 18/05/2023

APPENDIX 4

Selected Reference List

The Body Language of Trees by Claus Mattheck & Helge Breloer (1994) London:HMSO.
Diagnosis of ill-health in trees by R.G. Strouts and T.G. Winter. (2000) London:HMSO
Principles of Tree Hazard Assessment and Management by David Lonsdale.(1999) HMSO
BS5837:2012 British Standards Institute
BS3998:2010 British Standards Institute
Trees Their Use, Management, Cultivation and Biology Robert Watson 2006
Tree roots in the built environment (Research for Amenity Trees) (2013) Arboricultural Association
Law of Trees, Forests and Hedges
by Dr. Charles Mynors (Author) Sweet & Maxwell; 2nd Revised edition (14 Dec. 2011)
Assessment of Tree Forks, Assessment of Junctions For Risk Management by Dr. Duncan Slater : Arboricultural Association (Nov 2016)
Collins Tree Guide by Owen Johnson (2006): Harper Collins, London

KEY:

- EXISTING TREES (RETAINED)
- EXISTING TREES (REMOVED)
- PROPOSED TREES
- LOCKABLE BIKE SHEDS
- REFUSE STORAGE
- PRIMARY ACCESS (FRONT DOORS)
- SECONDARY ACCESS (DOOR TO GARDEN)
- LOCKABLE GARDEN ACCESS GATE
- SITE BOUNDARY
- SWALE

Rev B	Pedestrian link to East added	CC 03.02.25
Rev A	Site access and Type A HT's revised	CC 23.01.25

HIGHALL Developments

PROJECT TITLE
PENDLE STREET EAST, SABDEN

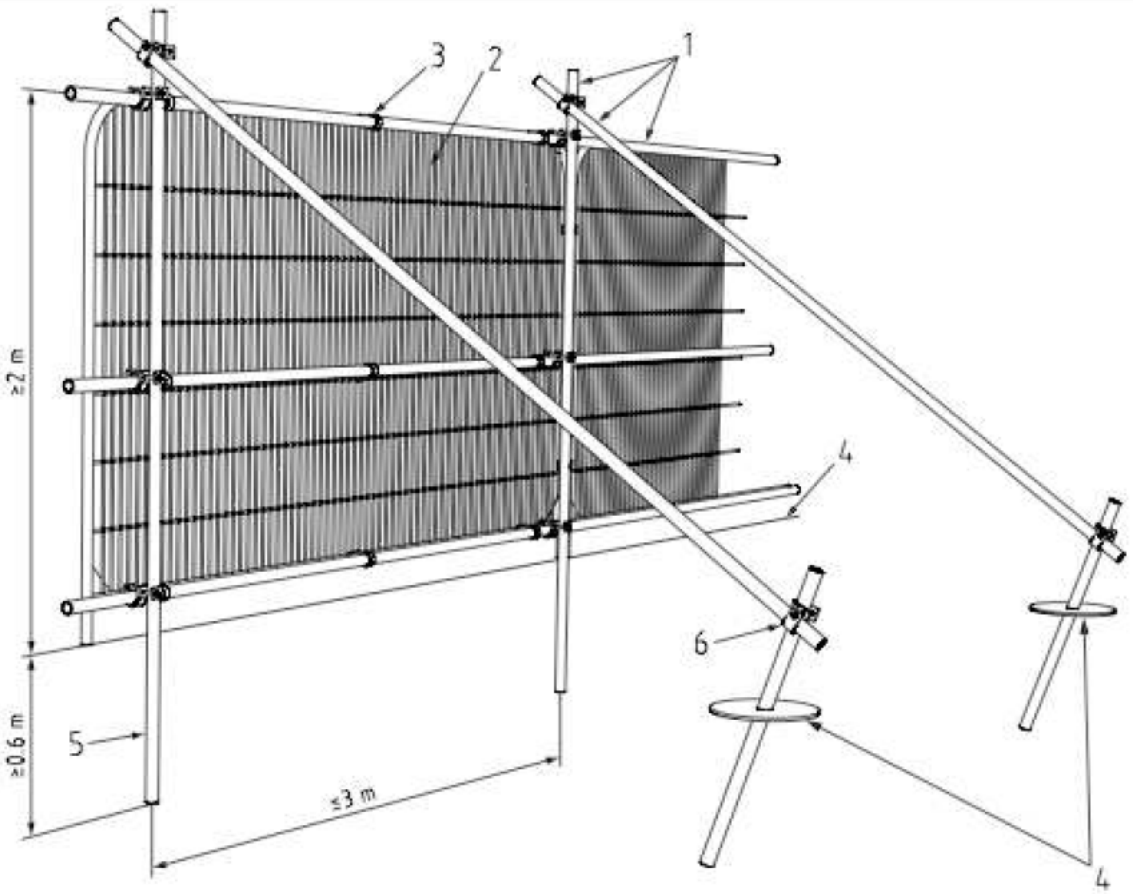
DRAWING DETAIL
CAD SITE LAYOUT

DRAWN	CC	DATE	04.11.24
CHECKED	-	SCALE	1:500@A2

DRAWING NUMBER	REVISION
PSES.P.CSL.01	B

Tree protective fencing

Figure 2 **Default specification for protective barrier**

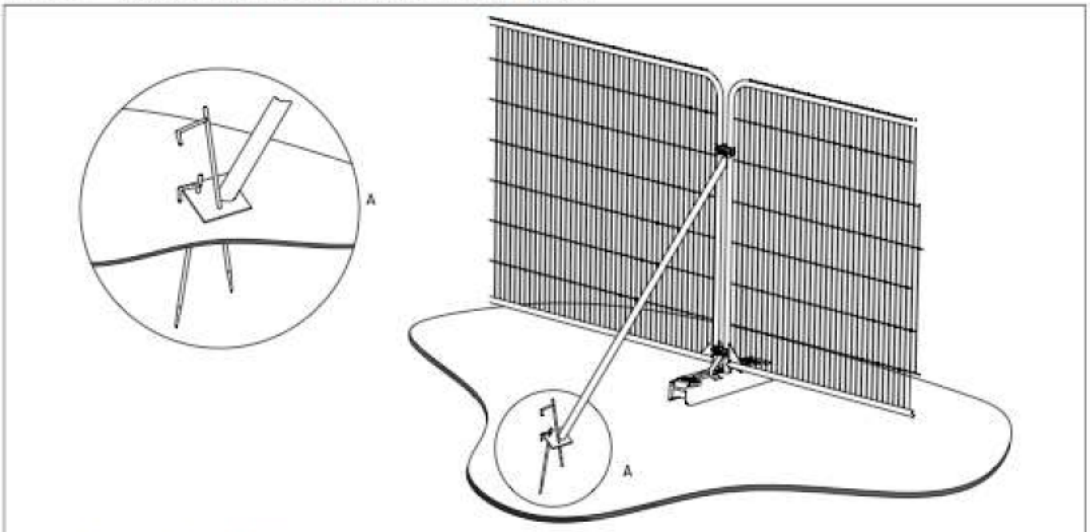


Key

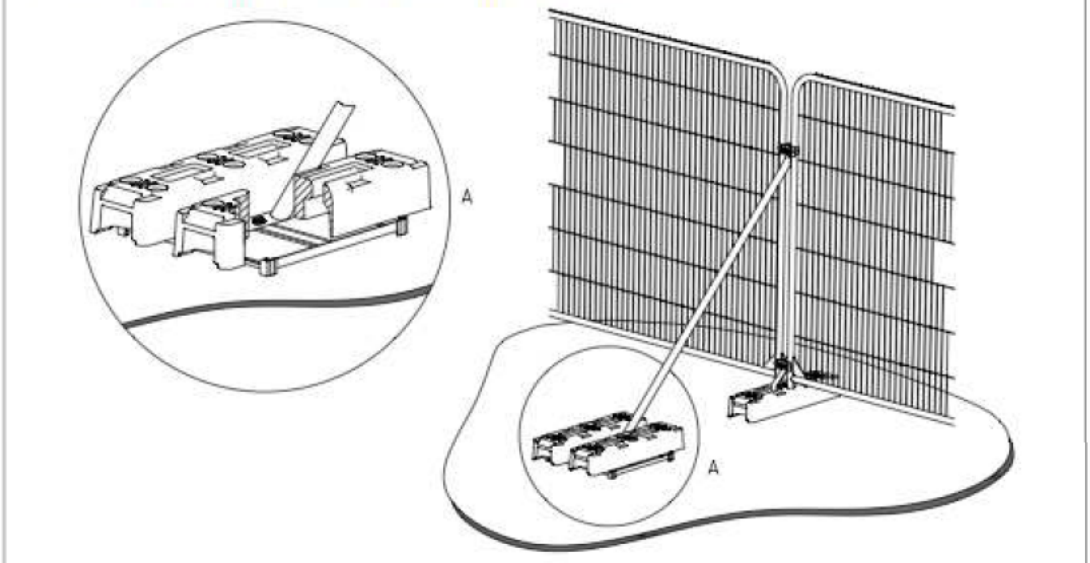
1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Tree protective fencing

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

TREE PROTECTION AREA

KEEP OUT!

ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE AGREEMENT OF THE LOCAL AUTHORITY OR ARBORICULTURAL CONSULTANT