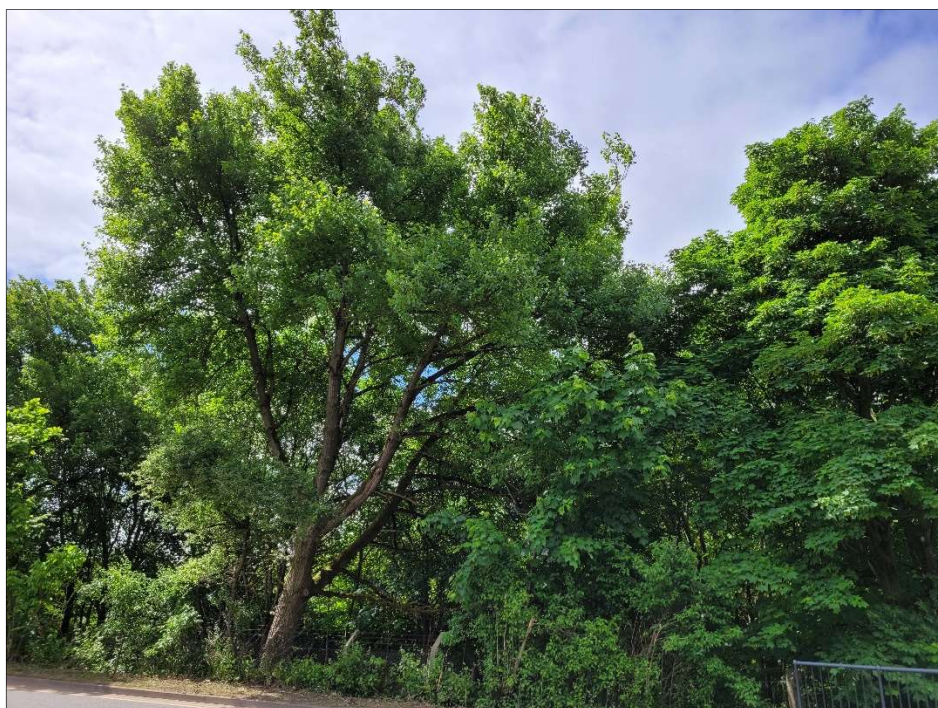




Arboricultural Constraints Appraisal

in Relation to Proposed Construction of
Vehicular Access & Vortex Control Unit at



**Land off Prescott Park Way,
Prescot, Merseyside, L34 1JZ**

Prepared by:

Bowland 
Tree Consultancy Ltd

June 2022

ARBORICULTURAL CONSTRAINTS APPRAISAL LAND OFF PRESCOT PARK WAY, PRESCOT

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**ARBORICULTURAL CONSTRAINTS APPRAISAL
LAND OFF PRESCOT PARK WAY, PRESCOT**

PROJECT DETAILS

Project No.: BTC2392

Site: Land off Prescott Park Way, Prescott, L34 1JZ

Client: United Utilities Property Services Ltd

Council: Knowsley Borough Council

Survey Dates: 17 JANUARY 2022 & 27 MAY 2022

Surveyed by: Joe Lambert BSC(Hons) FdSc MArborA & Roland Jones HND Arb MArborA

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Date of Issue: 9 June 2022

Version No: 2

TREE SURVEY SCHEDULE FOR ARBORICULTURAL CONSTRAINTS APPRAISAL							
Site:		Land off Prescott Park Way, Prescott, Merseyside, L34 1JZ					
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No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m²)	RPA Radius (m)
T1	Hybrid Black Poplar	16	550	N 8 E 6 S 4 W 5	2-E 1	SM	M	- Situated on eastern side of dry ditch with approximately 1m drop. - Slight stem lean to west. - Numerous lower dead branches to west up to approximately 150mm diameter. - Pruning wounds over highway averaging 100mm diameter. - Open spreading crown.		10+	C1	137	6.6
T2	Hybrid Black Poplar	17.5	750	N 5 E 7 S 8.5 W 5	5-S 4	M	M	- Soil raised and path installed immediately north of stem as part of highway alteration works associated with adjacent residential development. - Lower stem covered with climbing Honeysuckle. - Unable to access or view stem base due to dense bramble, close board fencing and Honeysuckle. - Large 300mm diameter pruning wound with decay to stem at approximately 2m height. - Stem bifurcates at approximately 3m height. - Primary branch of approximately 350mm diameter previously removed at 2m to west, now largely obscured but decay evident. - Further partially occluded pruning wounds to 250mm diameter up stem, with evident decay pockets indicating likely connecting internal decay column. - Multiple branches up to 200mm diameter failed to north-east of canopy. - Approximately 250mm diameter branch at approximately 8m height over road on east side has sustained secondary branch failure with resultant 150mm wide x 1m long wound at 3m distance from stem.	Remove tree due to poor structural condition and subsequent risk of harm to third party road and path users upon further branch/stem failures.	10+	U	254	9
T3	Common Hawthorn	7	1x160 1x120 1x100 (ms)	N 3 E 2.5 S 2.5 W 2	0.5 1.5	SM		- Ground levels raised by approximately 1m approximately 1.5m north of stem beyond boundary fence as part of highway alterations associated with adjacent development. - Stem trifurcates at a height of approximately 0.5m with tight included bark union. - Stem of approximately 160mm diameter arising to south-east has been removed at 0.5m height with a 300mm long stub remaining.		10+	C1	23	2.68

Headings and Abbreviations:

No.	Allocated sequential reference number - Tree ('T'), Group ('G'), Woodland ('W') or Hedge ('H') reference number - refer to plan and to numbered tags where applicable
Species:	Common name
Height:	In metres, to half nearest metre - where possible approximately 80% are measured using an electronic clinometer and the remainder estimated against the measured trees. In the case of Groups and Woodlands the measurement listed is that of the highest tree
Stem Diam.:	Stem diameter in millimetres, to nearest 10mm - measured and calculated as per Annex C of BS5837:2012. MS = multi-stemmed, TS = twin-stemmed
Branch Spread:	Crown radius measured (or estimated where considered appropriate) from the four cardinal points (north, east, south and west) to give an accurate visual representation of the crown
Branch & Canopy Clearances:	Existing height above ground level, in metres, of first significant branch and direction of growth (e.g. 2.5-N) and of canopy at lowest point - to inform on crown to height ratio, potential for shading, etc.
Life Stage:	Estimated age class - Y = young, SM = semi-mature, EM = early-mature, M = mature, PM = post-mature
PC:	Physiological Condition - a measure of the tree(s)' overall vitality, i.e. D = Dead, MD = Moribund, P = Poor, M = Moderate, G = Good
General Observations and Comments:	Comments relating to the tree(s)' overall condition and any other pertinent factors including structural defects, current and potential direct structural damage, physiological decline, poor form, etc.
Management Recommendations:	Either Preliminary or In Consideration of the Proposal - In the case of Arboricultural Constraints Surveys the recommended management works only take existing site and tree circumstances and conditions into account and not proposed developments. Arboricultural Impact Assessment and Method Statement related
ERC:	Surveys take the proposed development into consideration with recommendations made accordingly. More than one option may be given if considered appropriate
Cat. Grade:	Estimated Remaining Contribution - in years as per BS5837:2012 (i.e. <10, 10+, 20+, 40+)
RPA m²:	Category Grading - tree retention value listed as U, A, B or C - in accordance with BS5837:2012 Table 1
RPA Radius (m):	Root Protection Area in m² - calculated area around the tree that must be appropriately protected throughout the development process in order avoid root damage
# (Estimated Dimensions):	Root Protection Area Radius - in metres measured from the centre of the stem to the line of tree protection
	Where trees are located off-site, or are inaccessible for any other reason, and accurate measurements or other information cannot be taken then the information provided is estimated and is duly suffixed with a '#' symbol

TREE SURVEY SCHEDULE FOR ARBORICULTURAL CONSTRAINTS APPRAISAL							
Site:		Land off Prescott Park Way, Prescott, Merseyside, L34 1JZ					
Client:		United Utilities Property Services					

Surveyors:	Joe Lambert BSc(Hons) FdSc MArborA & Roland Jones HND MArborA
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T4	Sycamore	12	240	N E S W 2	2 3 2.5 2	3 2	SM	G	▪ Stem wound of approximately 150mm diameter at 4m height on east side, which has partially occluded just below tight bifurcation point.	▪	10+	C1	26	2.88
T5	Common Elder	5	80#	N E S W 1	2 2 1 1	N/A 0	SM	MD	▪ Located in dense bramble and subsequently not accessed to inspect. ▪ Largely dead.	▪	<10	U	17	2.35
T6	Sycamore	11	1x250 1x210 (ts)	N E S W 0	3 4.5 3 0	0.6 2	SM	G	▪ Moderately severe stem lean to south-east. ▪ Stem in contact with concrete manhole cover at 300mm height, which is causing contact damage to stem. ▪ Stem likely to cause displacement of concrete structure through future incremental growth.	▪	<10	U	48	3.92
T7	Sycamore	12	260	N E S W 3	3 3 5 3	2.5 2	SM	G	▪ Slight stem lean to east from ground level. ▪ Moderately severe squirrel damage to bark in upper canopy.	▪	10+	C1	31	3.12
T8	Common Lime	8	200	N E S W 2.5	2.5 2 1.5 2.5	2 2	SM	G	▪ Part of moderately spaced group of Limes extending north and west around perimeter of roundabout. ▪ Minor encroachment below streetlight.	▪	20 +	B1	18	2.4
G1	approx. 16no. Sycamore, Ash, Rowan	≤ 10	≤ 250	N E S W ≤ 3 ≤ 4 ≤ 3 ≤ 2.5	≤ 3 ≤ 4 ≤ 3 ≤ 2.5	1-S ≥ 1	Y	M	▪ Mostly suppressed self-seeded group with poor form. ▪ On southern side of brook and on banking.	▪	10+	C1	≤ 28	≤ 3
G2	2no. Sycamore	≤ 5	≤ 50	N E S W ≤ 4.5 ≤ 5 ≤ 2 ≤ 4	≤ 4.5 ≤ 5 ≤ 2 ≤ 4	2-E ≥ 2	SM	M	▪ Self-seeded group on edge of brook. ▪ Suppressed growth with deadwood in lower crown. ▪ Exposed roots due to brook.	▪	10+	C1	≤ 55	≤ 4.2
G3	4no. Hornbeam 'Fastigiata'	≤ 3.5	≤ 60#	N E S W ≤ 0.25 ≤ 0.25 ≤ 0.25 ≤ 0.25	≤ 0.25 ≤ 0.25 ≤ 0.25 ≤ 0.25	N/A ≥ 1	Y	M	▪ Closely spaced group evidently planted as part of adjacent residential development. ▪ All have bark wounds and poor/defective staking and guarding.	▪	10+	C1	≤ 2	≤ 0.72

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G4	4no. Sycamore	≤ 12	≤ 1x220 1x100 (ts)#	N ≤ 2.5 E ≤ 2.5 S ≤ 2.5 W ≤ 2.5	N/A ≥ 1	SM	G	- Not accessed due to dense brambles and undergrowth. - Smaller trees, part of northern section of group G1 associated with previous site survey. - Multiple branches and tight unions from between ground level and 1.2m height. - Moderate stem leans. - Three trees to east are in relatively close proximity to perimeter fence.		10+	C1	≤ 26	≤ 2.9
G5	Alder, Birch, Buddlea, Dogwood, Oak, Pine, Sycamore	≤ 10	≤ 330	N ≤ 3 E ≤ 3 S ≤ 3 W ≤ 3	N/A ≥ 0	SM	G-D	- Very closely spaced group of planting to south of roundabout, outside site boundary, on moderately steep south facing slope. - Not fully accessed due to barbed wire, broken glass, debris and dense undergrowth. - Evidently recently constructed macadam pavement 3.5m wide to north with concrete kerbs as part of highway alteration works within 2m of northern most stems and several bark scrapes from mechanical machinery. - Canopies pruned and cleared back to path edge and raised to 3m height over new footpath and to clear sightlines to roundabout. - Two Birch in group are dead and stakes and ties occluding into Pine stems at approximately 0.5m height and restricting incremental growth. - Mutual suppression of trees within group and suppression by larger Poplars to south with resulting poor forms. - Two pines have tight included bark unions at approximately 2m height and all have branch stubs of 60mm diameter and up to 1m long from clearance works to adjacent footpath.	Recommend tree owner undertake silvicultural thinning works and formative pruning to group to prevent suppression of better quality specimens within, and to remove redundant stakes and ties to prevent further stem damage.	10+	C2	≤ 49	≤ 1.68
G6	Common Hornbeam	≤ 3.5	≤ 140	N ≤ 0.5 E ≤ 0.5 S ≤ 0.5 W ≤ 0.5	2 ≥ 2	SM	G	Maintained canopies into 1m cubes as ornamental planting on roundabout.		20+	C2	≤ 9	≤ 1.68
G7	Alder, Birch Pine etc.	≤ 10	≤ 170	N ≤ 2 E ≤ 2 S ≤ 2 W ≤ 2	N/A ≥ 0	Y-SM	M-G	- Very closely spaced group. - Macadam footpath installed within 1m of stems on south-west side. - Debris within group including rubble around some stems. - Mutual suppression with resulting poor forms. - Continues to north and west around perimeter of roundabout. - Canopies conflicting with T7 and further moderate quality Limes to north outside the survey scope.	Recommend tree owner undertake silvicultural thinning works and formative pruning to group to prevent suppression of better quality specimens within.	10+	C2	≤ 13	≤ 2.04

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G8	approx. 2no. Goat Willow	≤ 8	≤ 1x120 2x100 (ms)#	N ≤ 3 E ≤ 3 S ≤ 2 W ≤ 1	N/A ≥ 0	SM	G	- Self-set pair north of palisade fence, and subsequently not accessed or inspected in detail. - Located at base of soil mound and in contact with fence with likely future displacement through further incremental stem and canopy growth.	Recommend tree owner removes group due to projected conflict with boundary feature.	<10	U	≤ 16	≤ 2.23
G9	4no. Hybrid Black Poplar	≤ 19	≤ 680#	N ≤ 6.5 E ≤ 6.5 S ≤ 9 W ≤ 6.5	5 ≥ 0.5	M-PM	P	- Widely spaced linear group continuing west. - Not fully inspected due to location in dense vegetation and western sections location outside survey extents. - Multiple unoccluded and partially occluded pruning wounds on all trees. - Branch epicormics on all trees. - Overall poor condition and expressing significant reductions in vitality. - Newly installed chain link fence also in contact with stem on south side. - Short projected remaining life expectancies of less than 10 years.	Remove group due to risk of branch and/or stem failures.	<10	U	≤ 209	≤ 8.16

BS5837:2012 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 <i>Note: Category U trees can have existing or potential conservation value which it might be desirable to preserve; see BS5837:2012 paragraph 4.5.7.</i>			Red
	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)	Green
Category B Those of moderate quality and value: those in such a condition as to make a significant contribution. A minimum of 20 years is suggested.	Trees that might be included in the high category, but are downgraded because of impaired condition. Examples include the presence of remediable defects including unsympathetic past management and minor storm damage	Trees present in numbers, usually as groups or woodlands, so they form distinct landscape features which attract a higher collective rating than they might as individuals. But which are not, individually, essential components of formal or semi-formal arboricultural features. For example, trees of moderate quality within an avenue that includes better, A category specimens. Or trees which are internal to the site, therefore individually having little visual impact on the wider locality	Trees with clearly identifiable conservation or other cultural benefits	Blue
Category C Those trees of low quality and value: currently in adequate condition to remain until new planting could be established - a minimum of 10 years is suggested - or young trees with a stem diameter below 150 mm	Trees not qualifying in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit	Trees with very limited conservation or other cultural benefits	Grey
	Note – Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation			

- TEMPORARY PROTECTIVE FENCING SPECIFICATION -

Construction Exclusion Zones (CEZs), enclosed by **Temporary Protective Fencing**, as detailed below and to be agreed with the Local Planning Authority (LPA), shall:

1. be retained in place throughout the development process, as specified in the 'Temporary Protective Fencing Construction' section below and detailed in BS5837:2012 Figure 2 (overleaf);
2. be sited in the area(s) defined by the Root Protection Areas or, if applicable, the Construction Exclusion Zones, as detailed on the associated Tree Plan;
3. be erected prior to any construction, demolition or excavation works and remain in place for the duration of the project;
4. preclude any delivery of site accommodation and/or materials and/or plant machinery;
5. preclude all construction related activity, with the sole exception of specified arboricultural works and any other works to be carried out under supervision that have been agreed by all parties; and
6. preclude the storage of all development related materials and substances including fuels, oils, additives, cement and/or any other deleterious substance.

Any incursion into CEZs must be by prior arrangement, following consultation with the LPA.

Temporary Protective Fencing Construction

1. Temporary protective fencing panels shall be weldmesh "Heras" panels of at least 2.0 metres in height.
2. The panels shall butt together and be securely fixed to a scaffold framework, as per 3 to 5 below.
3. The scaffold framework shall comprise of upright poles of at least 3.0 metres in length driven no less than 0.6 metres into the ground at maximum 3.0 metre centres with horizontal and diagonal poles fixed to the uprights, as per 4 to 5 below.
4. The two horizontal rail poles shall be attached to the uprights at heights of 0.6 and 1.8 metres with 3 no. clamps to each joint.
5. The diagonal scaffold pole struts be clamped to the top rail of the scaffold framework at a 45° angle and extend back into the CEZ and clamped to a 0.7 metre length of scaffold tube that shall be driven no less than 0.5m into the ground.
6. No fixing shall be made to any tree and all possible precautions shall be taken to prevent damage to tree roots when locating posts.
7. A 600mm x 300mm warning sign reading "TREE PROTECTION AREA KEEP OUT" (see Figure 1, below) shall be fixed to every 10.0 metre length of protective fencing.
8. On completion and prior to any demolition or construction works, site preparation, excavation or delivery of plant and materials, the LPA shall inspect and approve the Temporary Protective Fencing.

Figure 1: CEZ Warning Sign

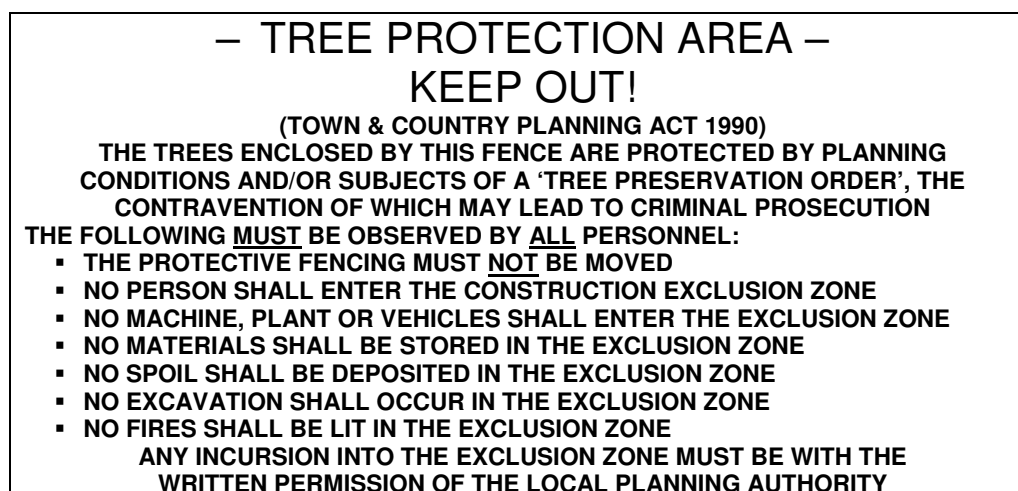
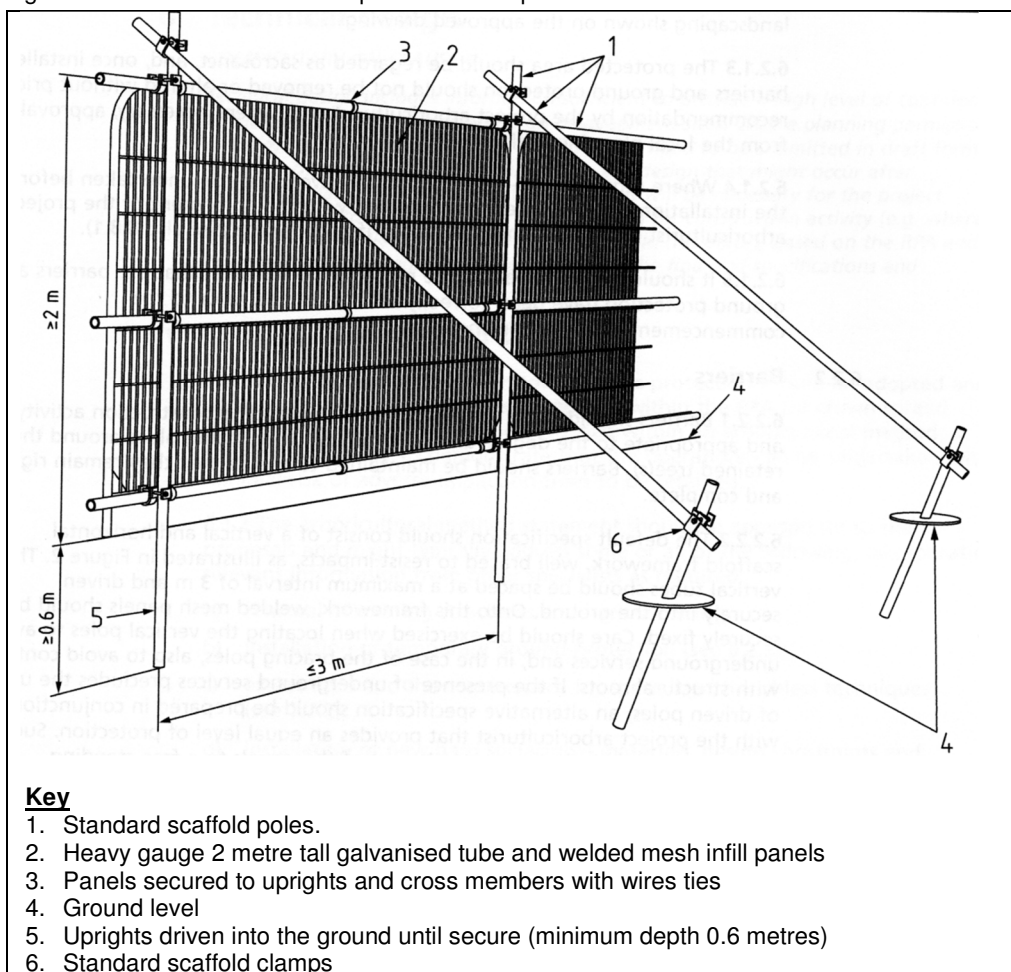


Figure 2: BS5837:2012 Default specification for protective barrier



Temporary Ground Protection

1. Any necessary Temporary Ground Protection areas shall conform to Figure 3, below, unless otherwise agreed with the LPA.
2. The Ground Protection Area shall be left undisturbed and covered by a semi-permeable geotextile membrane which shall, in turn, be covered by a compressible layer consisting of a material such as woodchip.
3. Side-butting scaffold boards shall then be fitted to cover the Ground Protection Area.
4. On completion of installation, and prior to any demolition or construction works, site preparation, excavation or delivery of plant and materials, the Consulting Arboriculturist or the LPA Tree Officer, as agreed, shall inspect the Temporary Ground Protection.
5. The Temporary Ground Protection shall remain in place until completion of the project and only removed following receipt of written permission from the LPA.

Figure 3: Temporary Ground Protection – Recommended Construction

