

TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT AND PROTECTION APPRAISAL

Site: Brown Leaves Country Hotel, Longsight Road, Copster Green, Lancashire, BB1 9EU

Client: McDermott Homes

Surveyor: Phill Harris – Chartered Arboriculturist

Review Date: 21 June 2012

Job Reference: BTC343

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No.	Species	Height	Stem Diam	Branch Spread	Height of C.C.	Age	PC	Comments on Condition, etc.	Management Recommendations	ERC	Cat. Grade	RPA (m²)	RPA Radius (m)
T1	Lawson Cypress	6.5	280	N 2 E 2 S 2.5 W 2.5	0.5	SM	M	- Evidently recently topped - Crown showing signs of a reduction in vitality with moderate amount of foliar browning	- Remove in order to implement development - Grub out stump	10-20	C1/2	35.47	3.36
T2	Sargent Cherry	10	400 (ts)	N 2 E 2.5 S 1 W 1	4	EM	G	Stem bifurcates into co-dominant sub-stems at a height of approximately 0.1m with an acute included bark union.	- Remove in order to implement development - Grub out stump	10-20	C1/2	50.27	4
T3	Silver Birch	13.5	410	N 6 E 6 S 3 W 4	4.5	EM	G	Slightly biased crown to north-east due to partial suppression by neighbouring tree(s)	Retain and ensure protection of RPA with CEZ throughout development	20-40	B1	76.06	4.92
T4	Ash	15.5	500	N 7 E 7.5 S 5 W 6	5	EM	G	- Located on neighbouring land and therefore not inspected in detail - Stem trifurcates into primary branches at a height of approximately 4.0m.	Ensure protection of RPA with CEZ throughout development	> 40	B1	113.11	6
T5	Variegated Norway Maple	9	200	N 2 E 5 S 3 W 2	3	Y	G	Slightly biased crown to north-east	Retain and ensure protection of RPA with CEZ throughout development	> 40	B1/2	18.1	2.4
T6	Purple Norway Maple	9	210	N 3 E 4.5 S 3 W 2	3	Y	G	Slightly biased crown to east	Retain and ensure protection of RPA with CEZ throughout development	> 40	B1/2	19.95	2.52
T7	Ash	15.5	600	N 5 E 6.5 S 4 W 4	6	EM	G	Located on neighbouring land and therefore not inspected in detail	Ensure protection of RPA with CEZ throughout development	> 40	B2	162.88	7.2

HEADINGS & ABBREVIATIONS

No.	Allocated Tree (T), Group (G), Woodland (W) or Hedge (H) reference number - refer to plan and to numbered tags where applicable
Species:	Common and botanical name in brackets where appropriate
Height:	In metres - 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 - measured or estimated at a height of approximately 1.5 metres above ground level or just above the root flare for multi-stemmed trees. 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
Height of CC:	Height of crown clearance in metres - measured at lowest point above adjacent ground level - to inform on crown to height ratio, potential for shading, etc.
Age:	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
Comments on Condition, etc.:	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 Surveys take the proposed development into consideration with recommendations made accordingly. More than one option may be given if considered appropriate
ERC:	Estimated Remaining Contribution - in years as per BS5837:2005 (i.e. less than 10, 10-20, 20-40, more than 40)
Cat. Grade:	Category Grading - tree retention value listed as R or A to C - broadly in line with BS5837:2005 table 1
RPA m²:	Root Protection Area in m² - calculated area around the tree that must be appropriately protected throughout the development process in order to avoid root damage
RPA Radius (m):	Root Protection Area Radius - in metres measured from the centre of the stem to the line of tree protection

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T8	Hybrid Black Poplar	9	220	N E S W 1	1 2.5 1.5 1	5	SM	G	▪ Moderate lower stem curvature	▪ Retain and ensure protection of RPA with CEZ throughout development	10-20	C1/2	21.90	2.64
T9	Sycamore	14	500 (ms)	N E S W 4	4 6 4 4	4.5	SM	G	▪ Three stems arise at ground level ▪ Standing on steep banking	▪ Ensure that tree can be retained in accordance with proposals for ground levels within and adjacent to RPA ▪ If retained then ensure protection of RPA with CEZ throughout development.	> 40	B1/2	78.55	5
T9a	Ash	11	120	N E S W 5	1 1 2 5	2	Y	G	▪ Not included in previous survey due to then being located within inaccessible area ▪ Not inspected in detail.	▪ Retain and ensure protection of RPA with CEZ throughout development	> 40	C1	6.52	1.44
T9b	Sycamore	11	410	N E S W 5	2 2 5 5	2	SM	G	▪ Located on neighbouring land and therefore not inspected in detail ▪ Not included in previous survey due to then being located within inaccessible area ▪ Not inspected in detail.	▪ Ensure protection of RPA with CEZ throughout development	20-40	B1/2	76.06	4.92
T10									▪ C category group that has been removed	▪				
T11	Purple Norway Maple	7.5	120	N E S W 1	2 2 1 1	4	Y	G	▪ No visible structural defects	▪ Remove in order to accommodate development ▪ Grub out stump	> 40	C1	6.52	1.44
T12									▪ C category tree that has been removed	▪				
T13	Atlas Cedar	10.5	280	N E S W 4	4 4 1 4	3.5	SM	G	▪ Recently heavily topped	▪ Remove in order to accommodate development ▪ Grub out stump.	10-20	C1/2	35.47	3.36
T14	Wild Cherry	9	340 (ts)	N E S W 4	4 2 2 4	4	EM	G	▪ Stem bifurcates into co-dominant sub-stems at a height of approximately 0.2m with an acute included bark union ▪ Growing close to overhead telephone with branches and stem in contact at various points ▪ Considered unsuitable for long-term retention.	▪ Remove in order to accommodate development. ▪ Grub out stump	< 10	R	36.32	3.4

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T15	Lawson Cypress	10	290	N E S W 2 2 2 2	0.5	SM	G	■ Stem trifurcates into primary branches at a height of approximately 2.5m with acute included bark unions.	■ Remove in order to accommodate development ■ Grub out stump	10-20	C1/2	38.05	3.48
G1	2no Silver Birch	≤ 12	≤ 380	N E S W ≤ 4 ≤ 4 ≤ 4 ≤ 4	≥ 3	EM	G	■ Small group located on neighbouring land ■ Not inspected in detail.	■	20-40	B1/2	≤ 65.33	≤ 4.56
G2	Holly, Berberis, Cherry, Cotoneaster, Privet, etc	≤ 7	≤ 200 (ms)	N E S W ≤ 3 ≤ 3 ≤ 3 ≤ 3	≥ 0	Y-EM	G	■ Large loose group made up mostly of small growing ornamental shrubs with several very young trees.	■ Retain and ensure protection of RPAs with CEZ throughout development	> 40	C2	≤ 12.57	≤ 2
G3								■ C category group that has been removed	■				
G4								■ C category group that has been removed	■				
G5	Silver Birch, Sycamore, Willow, Horse Chestnut, Rowan	≤ 12	≤ 350	N E S W ≤ 4 ≤ 4 ≤ 4 ≤ 4	≥ 1.5	Y-SM	G	■ Very closely spaced group of approximately 15 trees along boundary ■ Majority of trees are young	■ Thin group by removal of approximately 40% of the trees with preference for retention of those of better quality ■ Ensure protection of retained trees' RPAs with CEZ throughout development	> 40	B1/2	≤ 50	≤ 4.2
G6								■ C category group that has been removed	■				
G7	Holly, Cotoneaster, Cherry, Privet, Leyland Cypress, Hawthorn, Smokebush, Purple Plum, + various ornamental shrubs	≤ 7	≤ 200 (ms)	N E S W ≤ 3 ≤ 3 ≤ 3 ≤ 3	≥ 0	Y-EM	G	■ Large loose group made up mostly of small growing ornamental shrubs with several very young trees	■ Remove in order to accommodate development ■ Grub out stumps	> 40	C2	≤ 12.57	≤ 2
G8	2no Leyland Cypress	≤ 8	≤ 200	N E S W ≤ 2 ≤ 2 ≤ 2 ≤ 2	≥ 1	SM	M	■ Small group of low value trees	■ Remove in order to accommodate development ■ Grub out stumps	20-40	C1/2	≤ 18.1	≤ 2.4

BS5837:2005 Table 1 – Cascade Chart for Tree Quality Assessment

Trees for removal				
Category and definition		Criteria		Identification on plan
Category R Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management		- Trees that have serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other R category trees such as 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, for example Dutch Elm Disease, or very low quality trees suppressing adjacent trees of better quality Note – Habitat reinstatement may be appropriate For example R category tree used as a bat roost: installation of bat box in nearby tree.		Dark Red
Trees to be considered for retention				
Category and definition	Category – Subcategories			Identification on plan
	1. Mainly arboricultural values	2. Mainly landscape values	3. Mainly cultural values, including conservation	
Category A Those of high quality and value: in such a condition as to be able to make a substantial contribution. A minimum of 40 years is suggested	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal Arboricultural features for example the dominant and/or principal trees within an avenue	Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance for example avenues or other arboricultural features assessed as groups	Trees, groups or woodlands or significant conservation, historical, commemorative or other value for example veteran trees or wood-pasture	Light 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	Mid 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			

DISCLAIMER

Survey Limitations: Unless otherwise stated all trees are surveyed from ground level using non-invasive techniques, in sufficient detail to gather data for and inform the design of the current project only. The disclosure of hidden crown and stem defects, in particular where they may be above a reachable height or where trees are ivy clad or in areas of ground vegetation, cannot therefore be expected. All obvious defects, however, are reported. Detailed tree safety appraisals are only carried out under specific written instructions. Comments upon evident tree safety relate to the condition of said tree at the time of the survey only.

Unless otherwise stated all trees should be re-inspected annually in order to appraise their on-going mechanical integrity and physiological condition. It should, however, be recognised that tree condition is subject to change, for example due to the effects of disease, decay, high winds, development works, etc. Changes in land use or site conditions (e.g. development that increases access frequency) and the occurrence of severe weather incidents are also significant considerations with regards tree structural integrity and trees should therefore be re-assessed in the context of such changes and/or incidents and inspected at intervals relative to identified and varying site conditions and associated risks.

Where trees are located wholly or partially on neighbouring private third-party land then said land is not accessed and our inspection is therefore restricted to what can reasonably be seen from within the site. Stem diameters of trees located on such land are estimated. Any subsequent comments and judgments made in respect of such trees are based on these restrictions and are our preliminary opinion only. Recommendations for works to neighbouring third-party trees are only made where a potentially unacceptable risk to persons and/or property has been identified during our survey or, if applicable, where permissible works are required to implement a proposed development. Where significant structural defects of third-party trees are identified and associated management works are considered essential to negate any risk of harm and/or damage then we will first attempt to inform the site occupier of the issues and, if not possible, then inform the relevant Council. Where a more detailed assessment is considered necessary then appropriate recommendations are set out in the Tree Survey Schedule.

Where tree stem locations are not included on the plan(s) provided then they are plotted at the time of the survey using, where appropriate and/or practicable, a combination of measurement triangulation and GPS co-ordination. Where this is not possible then locations are estimated. Restrictions in these respects are detailed in the report.

The potential influence of trees upon buildings or other structures resulting from the effects of their roots abstracting water from shrinkable load-bearing soils is not considered herein. The advice of a structural engineer must be sought with regard to appropriate foundation depths for new buildings, with reference to NHBC Standards Chapter 4.2 (NHBC, 2008).

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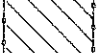
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new SW duffall to existing duffall.
Exact location to be agreed, but
should be sited outside retained
tree Root Protection Area(s).

Birchover

Haven

1

KEY	
T = Surveyed Individual Tree	
G = Surveyed Group of Trees	
Please refer to associated Tree Survey Schedule for specific details in respect of items below:	
Tree Categories:	
Those of a High and Moderate Quality &/or Value:	
	Category 'A' Tree/Group High Quality/Value with Estimated Remaining Lifespan of Over 40 Years
	Category 'B' Tree/Group Moderate Quality/Value with Estimated Remaining Lifespan of Between 20 & 40 Years
Those of a Low Quality &/or Value:	
	Category 'C' Tree/Group Low Quality/Value with Estimated Remaining Lifespan of Between 10 & 20 Years
	Category 'R' Tree/Group <10 Years Remaining Lifespan - Should therefore be Considered for Removal in Accordance with Prudent Arboricultural Management During that Period Regardless of Proposed
Note: Trees and groups with their crowns shown as broken lines, regardless of their category grade code (see above), and with grey numbers are proposed for removal	
RPAs & CEZs:	
	Radial Root Protection Area (RPA) Area(s) of ground that should be Protected through Development Works with Proposed Paving to form a Construction Excision Zone - see below
	Construction Excision Zone (CEZ) Area(s) to be enclosed with Temporary Protective Fencing Throughout the Development Process, as per the Tree Protection Specification

Scale: 1:500@A3
Date: June 2012
Drawn by: PH
Ref: BTC343-TPP Rev:

- TEMPORARY PROTECTIVE FENCING & GROUND PROTECTION 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 protected throughout the development process, as specified in the 'Temporary Protective Fencing Construction' section below and detailed in BS5837:2005 Fig. 2 (overleaf) and, if applicable, as defined by area on the Tree Protection Plan (TPP);
2. be erected prior to any construction, demolition or excavation works and remain in place for the duration of the project;
3. preclude any delivery of site accommodation and/or materials and/or plant machinery;
4. 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
5. 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 of at least 2.1 metres in height and, in agreement with the LPA, be either weldmesh "Heras" panels or 18mm thick exterior grade plywood boards.
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 Fig. 1, overleaf) 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 Consulting Arborist shall inspect the Temporary Protective Fencing.

Temporary Ground Protection

1. Any necessary Temporary Ground Protection shall conform to Figure 3 of BS5837:2005 (see overleaf).
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. Prior to any demolition or construction works, site preparation, excavation or delivery of plant and materials, the Arboricultural Consultant 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.

– CONSTRUCTION EXCLUSION ZONE – KEEP OUT!

(TOWN & COUNTRY PLANNING ACT 1990)
THE TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY
PLANNING CONDITIONS AND/OR SUBJECTS OF A 'TREE
PRESERVATION ORDER', THE CONTRAVENTION OF WHICH MAY
LEAD TO CRIMINAL PROSECUTION

THE FOLLOWING MUST BE OBSERVED BY ALL PERSONNEL:

- THE PROTECTIVE FENCING MUST NOT BE MOVED
- NO PERSON SHALL ENTER THE CONSTRUCTION EXCLUSION ZONE
- NO MACHINE, PLANT OR VEHICLES SHALL ENTER THE EXCLUSION ZONE
- NO MATERIALS SHALL BE STORED IN THE EXCLUSION ZONE
- NO SPOIL SHALL BE DEPOSITED IN THE EXCLUSION ZONE
- NO EXCAVATION SHALL OCCUR IN THE EXCLUSION ZONE
- NO FIRES SHALL BE LIT IN THE EXCLUSION ZONE

ANY INCURSION INTO THE EXCLUSION ZONE MUST BE WITH THE
WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY

Fig. 1: CEZ Warning Sign

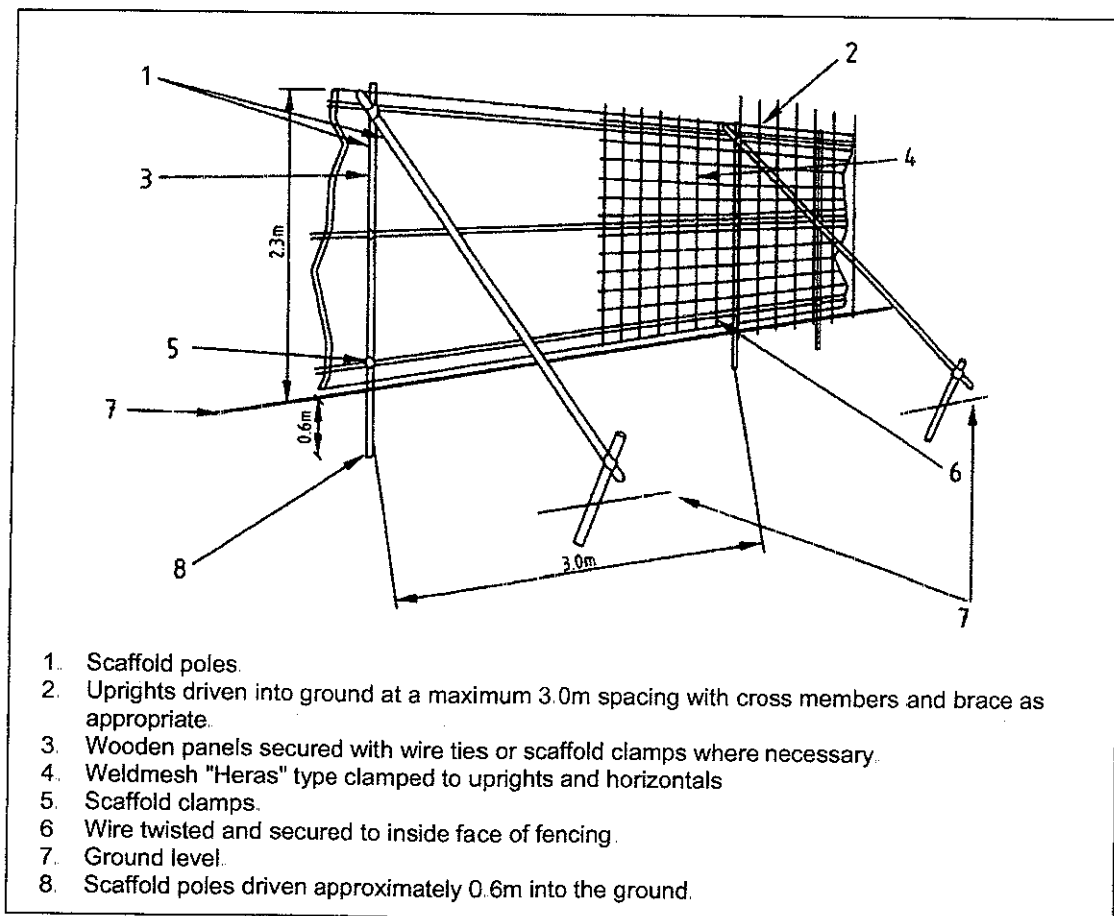


Fig. 2: BS5837:2005 Temporary Protective Fencing – Recommended Construction

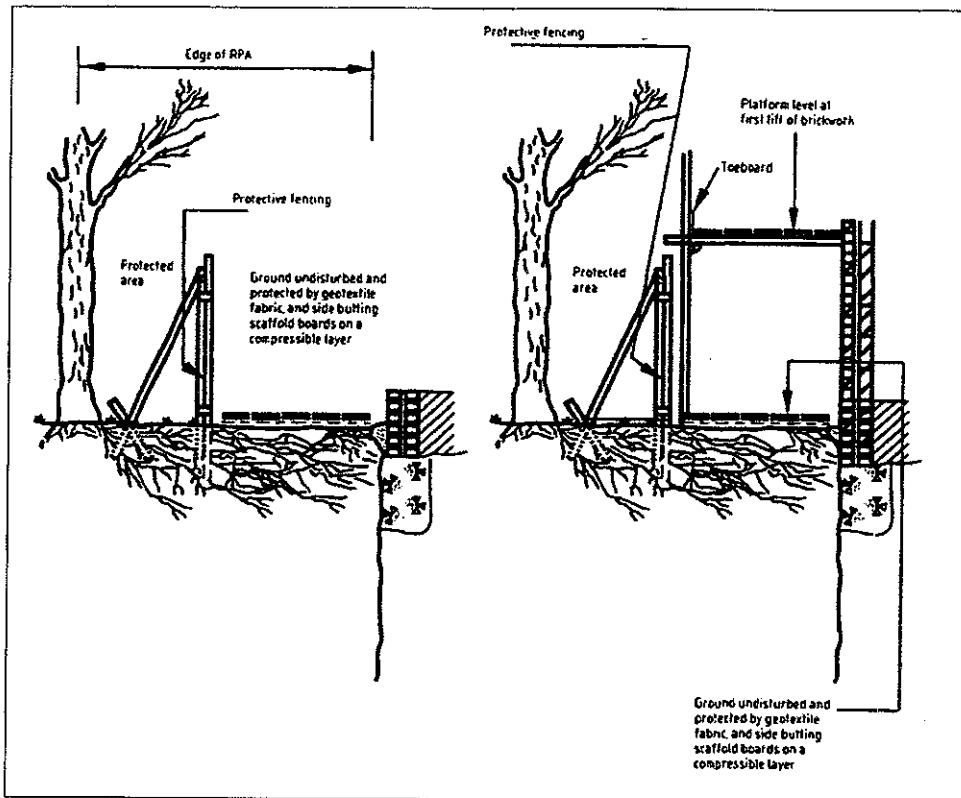


Fig 3: BS5837:2005 Temporary Ground Protection – Recommended Construction