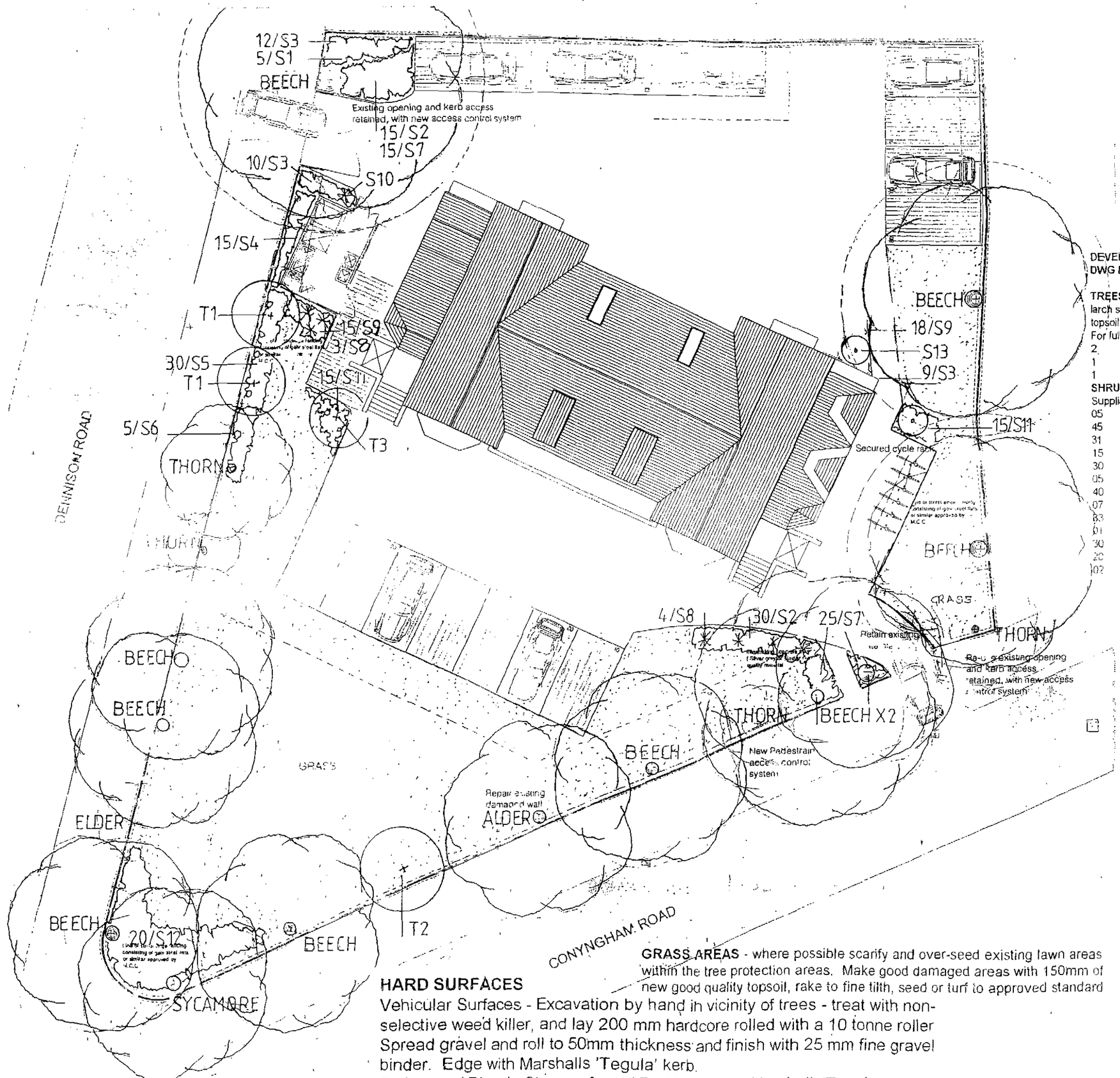


HARD SURFACES
Vehicular Surfaces - Excavation by hand in vicinity of trees - treat with non-selective weed killer, and lay 200 mm hardcore rolled with a 10 tonne roller Spread gravel and roll to 50mm thickness and finish with 25 mm fine gravel binder. Edge with Marshalls 'Tegula' kerb.
Pathways / Bicycle Storage Area / Parking Bays - Marshalls 'Tegula' block

GRASS AREAS - where possible scarify and over-seed existing lawn areas within the tree protection areas. Make good damaged areas with 150mm of new good quality topsoil, rake to fine tilth, seed or turf to approved standard

DO NOT SCALE
Work to annotated dimensions only.

Read drawing in conjunction with relevant specification, Structural Engineers' and Services Engineers' drawings

Confirm all dimensions before commencement of any work on site or fabrication.

Rev	Date	Description

DEVELOPMENT- DENNISON ROAD, VICTORIA PARK, MANCHESTER.
DWG NO: 0488 L(-) 007 / L 01 **DATE: 27 : 03 : 2008**

TREES - Plant new trees into 1 cubic metre tree pits, stake with one peeled larch stake with two rubber ties and spacers, and backfill with good quality topsoil from an Approved Supplier.
For full specification of tree protection see Tree Survey Report.

2	T1	Betula 'jacquemontii' (multi-stemmed)		06 - 08 cm
1	T2	Fraxinus excelsior.	BR	16 - 18 cm
1	T3	Malus yunnanensis veitchii	BR	12 - 14 cm

SHRUBS - Plant into 400mm of good quality topsoil from an Approved Supplier and top mulch the beds with 50mm pure medium grade bark

05	S1	Aucuba japonica 'variegata'	5 lt pot
45	S2	Euonymus fortunei 'Emerald 'n Gold'	3 lt pot
31	S3	Pyracantha rogersiana 'Flava'	5 lt pot
15	S4	Hedera canariensis	3 lt pot
30	S5	Berberis x ottawensis 'purpurea'	5 lt pot
05	S6	Rubus cockburnianus	5 lt pot
40	S7	Pachysandra terminalis	3 lt pot
07	S8	Phormium cookeranum 'Tricolor'	10 lt pot
83	S9	Leucothoe 'scarletta'	5 lt pot
01	S10	Jasminum nudiflorum	3 lt pot
30	S11	Senecio Dunedin Hybrid Sunshine	5 lt pot
20	S12	Cornus sibirica 'Westonbirt'	BR 900 - 1200mm
02	S13	Ilex x altaclarensis 'Golden King'	RB 900 - 1200mm

EXISTING TREE

TREE PROTECTION AREA

DENNISON ROAD

LANDSCAPE PLAN

Status
PLANNING -

Scale	Drawn by	Date
1:200@A3	FH	JULY '08

Job number	Drawing number	Revision
0488_A	L(--) 100	-

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Extracted from BS 5837: 2005 Trees in relation to construction

Section B: Protection of existing trees against damage on site

8.1 General

8.1.1 All trees which are being retained on site should be protected by stout fencing, enclosing an area as recommended by the project Landscape Architect. Such fencing should be erected prior to any materials or machinery are brought on the site and before any demolition or development, inclusion erection of site huts, is commenced. Once erected, fences should be regarded as sacrosanct, and should not be removed or altered without prior consultation with a specialist in arboriculture.

8.1.2 Occasionally the site will be so sensitive or vulnerable to damage that particular areas need to be protected or treated even before the constructor takes possession of it. In such a case, particular arrangements should be made for hand work by the owner or developer with an arboricultural specialist in the affected areas. Examples might include very old or rare trees, or trees sited unavoidably close to the constructors' access.

8.2 Protective fencing around trees

8.2.1 The fencing should be strong and suitable for local conditions, and should be appropriate to the degree of construction activity taking place on the site.

8.2.2 In most situations it is recommended that fencing at least 1.2m high should be erected, comprising a vertical and horizontal framework of scaffolding, well braced to resist impacts, supporting either cleft chestnut pale fencing (in accordance with BS 1722: Part 4) or chain link fencing (in accordance with BS 1722: Part 1) as shown in Figure 4.

8.2.3 In circumstances where the concentration of construction activity is particularly intense, or the trees and shrubs to be retained are either particularly valuable or particularly vulnerable, fencing at least 2.4m high should be erected, comprising a scaffolding framework as in 8.2.2 supporting a minimum of 20mm exterior grade ply or other robust man-made boards.

8.3 Precautions in respect to temporary work

8.3.1 If temporary vehicle access is required through the protected area, a reinforced concrete slab should be laid over the existing soil surface, with appropriate protection along the road edge.

8.3.2 If it is essential for scaffolding to be erected within a protected area, fencing in accordance with 8.2.2 or 8.2.3 should be erected to provide just sufficient space for the scaffolding. The ground between this fencing and the building should be protected by boarding (eg. scaffold boards) as shown in figure 6. A single thickness of boarding laid on the soil surface will provide sufficient protection for pedestrian loads, but more substantial boarding sufficient to spread the load should be used for heavier traffic. The ground beneath the boarding should be left undisturbed and should be protected with a porous geotextile fabric. If necessary, sand should be laid on the fabric to level the ground. When required, the building scaffolding should be erected. The boarding should be left in place until the building works are finished.

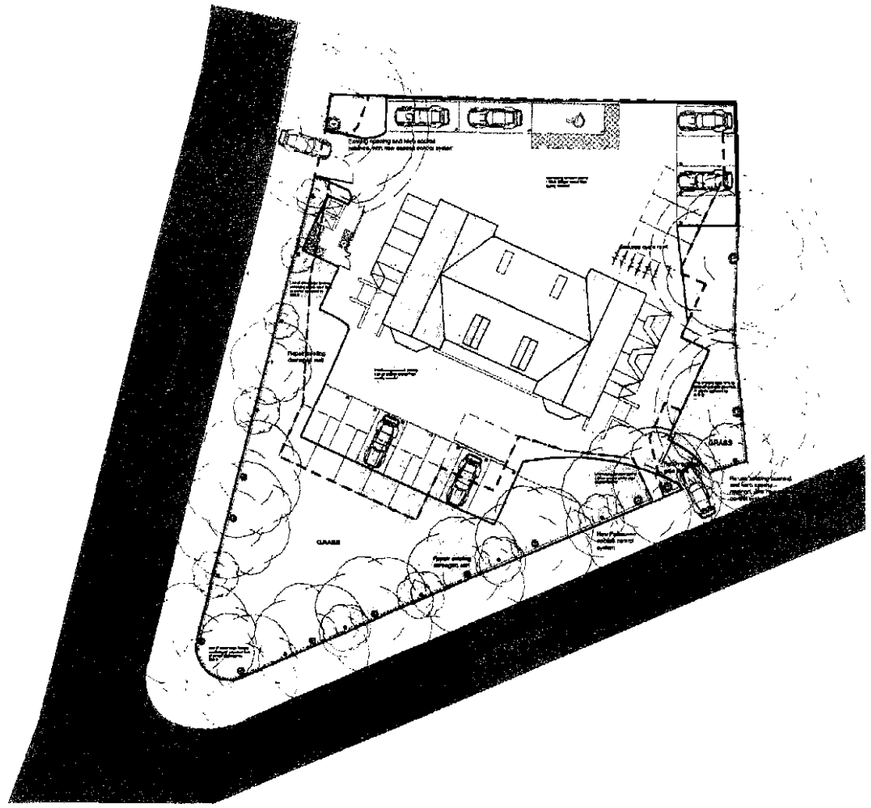
(d) If possible, trees to be conserved should not be used as anchorages for equipment used for removing stumps, roots or other trees, or for anyother purposes. When this is unavoidable, the trees should be protected in accordance with the recommendations of BS 3998.

(e) Notic boards, telephone cables, or other services should not be attached to any part of the tree.

(f) Care should be exercised when using cranes or similar equipment near the spread of the canopy of a tree.

(g) Trees to be felled that are adjacent to, or that lie within a continuous canopy of trees to be retained should be removed with particular care. In some cases a tree may have to be removed in sections to avoid damage.

8.4.3 It is essential that allowance should be made for the slope of the ground so that damaging materials such as concrete washings, mortar or diesel oil cannot run towards trees.



Method Statement. Construction works close to existing trees

The driveway construction work is close to a group of TPO trees. In these locations, if required tree pits will be dug, so that tree root locations can be noted. Due to proximity of the trees to the proposed driveway, and given the tree species, it is understandable that there will be a small amount of roc disturbance. This hand dig excavation work will only be carried out in a small part of the overall area of the tree root zones.

For root exposure etc prior to material backfilling, refer to BS5837:2005.

Care shall be taken to avoid damage to roots of retained trees. Roots of 35mm or greater diameter shall not be severed unless instructed by the Landscape Architect. Roots which are severed shall be cut to a smooth surface.
All excavation beneath the canopies of existing trees to be preserved shall be carried out by hand using only spades and shovels. Pick axes and mattocks are not to be used. Work carried out will be under the supervision of the Landscape Architect.

The driveways would need to have no more than 100mm excavation to formation level in the area under the tree canopies, and to achieve this the current levels around the trees will be built up with with a tensar geogrid below 'urban tree soil' which with act as a capping layer. This capping soil will ensure that any fibrous roots under the path construction are not affected by subsequent compaction due to finished build above. Typically the urban tree soil will be a depth of about 100mm. A geotextile membrane would be placed above this soil, upon which the paving finishes can be laid. Our proposals show a free draining interlocking block paving treatment to the driveway. A Landscape Architect should be present to agree the earth works within the tree canopy zone and to maintain a Watching Brief.

DETAIL OF BUILD UP OVER EXISTING ROOTS
SCALE 1:25

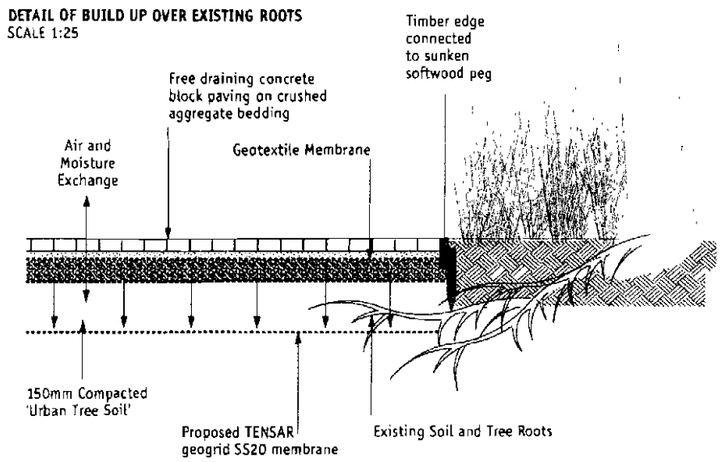


Figure 6: Scaffolding within a protected area
(a) Initial Stage

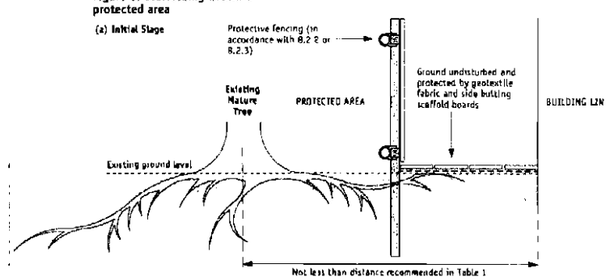


Figure 6: Scaffolding within a protected area
(b) Secondary stage with scaffolding

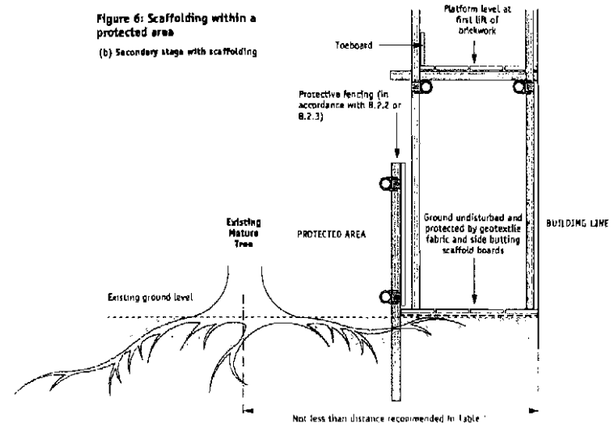
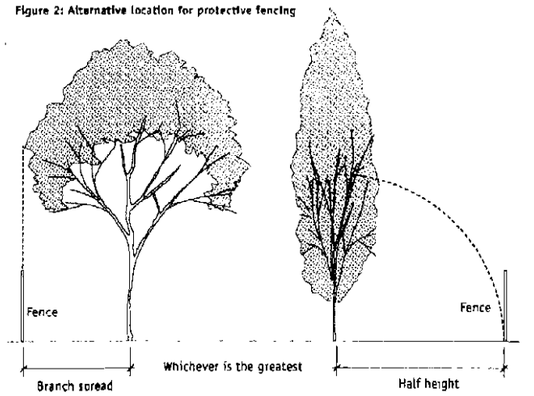


Figure 2: Alternative location for protective fencing



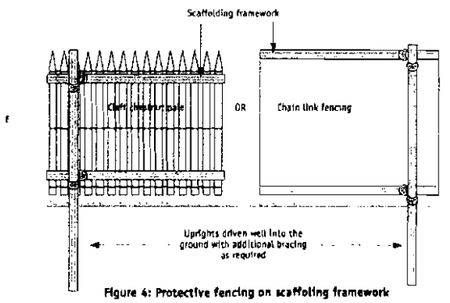


Figure 4: Protective fencing on scaffolding framework

NOTE:
This information has been extracted from BS 5837 : 2005 and is intended as a guide to the protection of existing trees on construction sites, with particular reference to the appropriate type and location of protective fencing. The contractor should refer to the entire British Standard prior to commencing work to familiarize himself with the full requirements of the Standard