

TREE PROJECTS

PROFESSIONAL & TECHNICAL ARBORICULTURE

48 QUEENS GROVE, LONDON NW8 6HH

REPORT PURSUANT TO DISCHARGE OF TREE CONDITION 6
LONDON BOROUGH OF CAMDEN PLANNING PERMISSION 2007/6101

Table of Contents

	Page
1 INTRODUCTION	3
2 SUMMARY OF CONSENTED SCHEME AND TREE IMPLICATIONS	3
3 OVERVIEW OF TREE PROTECTION MEASURES	5
4 TREE PROTECTION METHOD STATEMENT	6

Figures:

1 Plan and schedule of work summarising trees to be removed and trees to be retained	4
2 Extract of Tree Protection Plan	5

Appendices

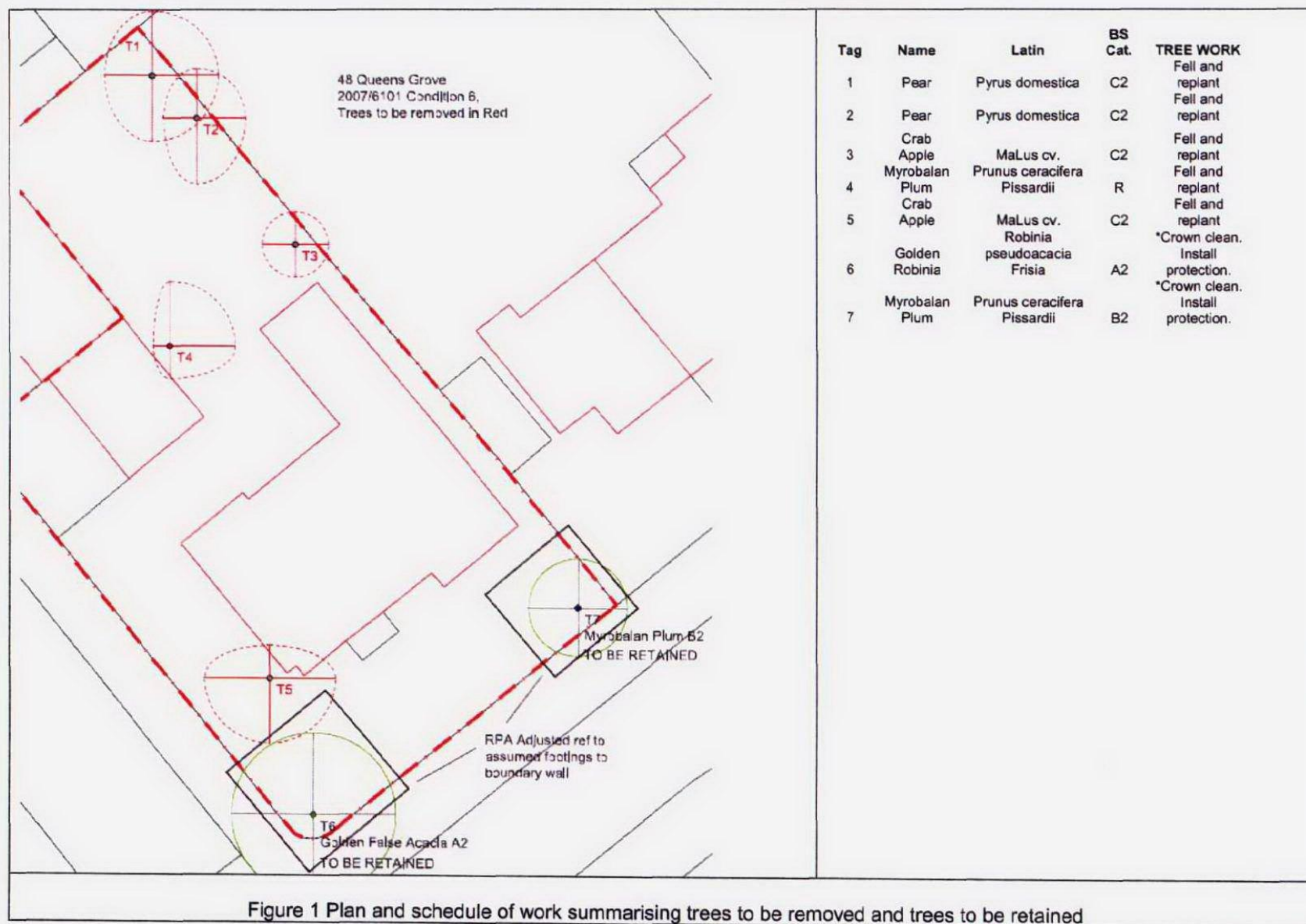
1 Tree Protection Plan to 48 Queens Grove	
2 Tree Protective Barrier (fig. 2) extract from BS 5837	
3 Durabase Ground Protection	

1 INTRODUCTION

- 1.1 **Instruction:** I am instructed by BB Partnership on behalf of clients to prepare documents pursuant to discharge of a tree protection planning condition at 48 Queens Grove, London, NW8.
- 1.2 **Basis of approach:** I have based this submission on Chapter 7 of British Standard 5837 Trees in Relation to Construction supplemented by experience of on-site tree protection measures.
- 1.3 **Documents Provided & Background Information:** I refer to the approved drawings, Tree Projects report of August 2007 and planning decision notice 2007/6101/P issued by the London Borough of Camden on the 3rd July 2008.

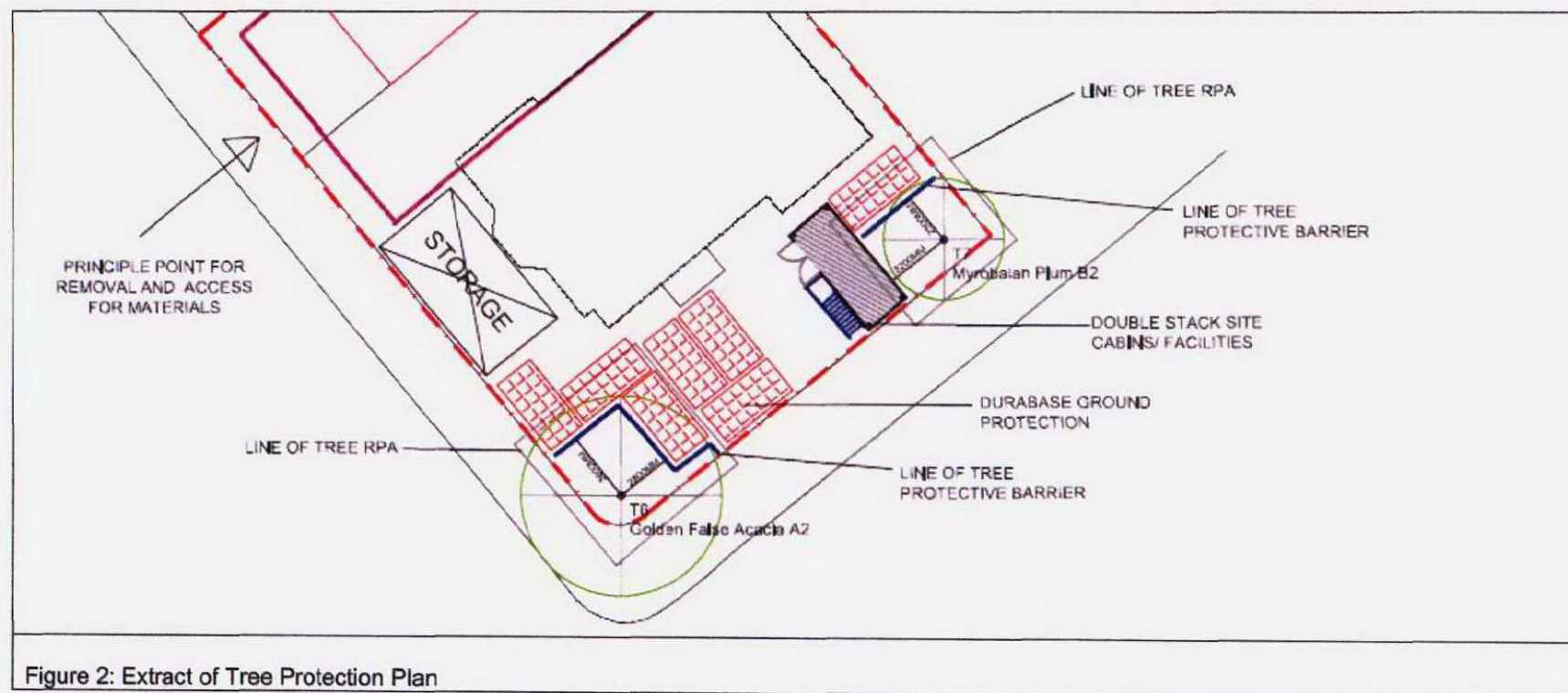
2 SUMMARY OF THE CONSENTED SCHEME AND TREE IMPLICATIONS.

- 2.1 **Return Site visit:** I returned to site on 4th April 2007. All tree conditions remain as per the original tree planning report and schedule of August 2007.
- 2.2 **Outline of Consented Scheme:** Refurbishment of the property complete with formation of basement beneath the rear garden, garage block and part of side garden and part of the main footprint of the house (rear).
- 2.3 **Tree Implications:**
- Trees to the rear and one on the side garden are approved to be removed.
 - Landscape conditions have been applied to control replacement planting proposals including provision of new trees (see submission by Outside Rooms)
 - Two trees to the Queens Grove frontage within the front garden are to be retained and require protection.
 - A plan and schedule of work summarising trees to be removed and trees to be retained is shown below at Figure 1.



3 OVERVIEW OF TREE PROTECTION MEASURES

- 3.1 As can be seen from Figure 1, and in accordance with the consented scheme, trees T6 and T7 are to be retained.
- 3.2 The area around each tree which is to be protected is based on a Root Protection Area represented by a square. The extent of the RPA is calculated according to BS 5837 recommendations. In this instance the extent of RPA has been modified to take account of the assumed influence of rooting of the adjacent boundary walls, i.e the RPA is preferential off-set from tree centre into the site.
- 3.3 A **TREE PROTECTION PLAN** has been drafted and is presented at Appendix 1. An extract is reproduced below as Figure 2:



3.4 Two forms of protection are required for each tree:

- Tree Protective Barrier: Comprising heras panels to back braced scaffold framework in accordance with BS 5837 Fig 2. (Appendix 2)
- Ground protection by installation of interlocking Durabase panels. (Appendix 3)

3.5 On this site with the construction arrangement and layout as proposed it is conceivable to provide protective barrier to the full extent of RPA. It is considered pragmatic to facilitate construction access and site circulation by use of interlocking Durabase panels. These panels are very heavy (approx 500kg each) and interlocked provide a monolithic surface capable of protecting ground beneath, bridging level irregularities and can withstand very heavy loading. Full details at Appendix 3.

4. TREE PROTECTION METHOD STATEMENT

Whilst the tree protection measures show a plan and details of what installations are required, this needs to be supplemented by a methodology. Given the bulk of activity linked to the construction is to be accessed from the side via St John's Wood Park there is no foreseeable conflict with the bulk material movements and access by large equipment commensurate with a scheme of this nature. It is desirable to separate pedestrian access from vehicle plant and delivery access and this is shown applied in the tree protection plan, For these reasons the tree protection method statement need only be brief:

4.1 Site Clearance and Site Set Up Arrangements:

- Pre-commencement Site Meeting: A pre-start meeting is to be held on site to review the approved scheme, construction sequence and method and integrating this to tree protection needs.
- Any conflicts identified will need to be resolved with the emphasis being on ensuring tree protection is not compromised.
- Site clearance is to proceed with all shrubberies and trees scheduled for removal being cleared from site to ground level. No machinery is to enter RPA of T6 or T7.
- Durabase ground protection is to be installed and locked into position. (panel arrangement has been prepared at scale in CAD) and levelled as necessary on baulk timbers.
- Site Cabin(s) are to be installed as per the tree protection plan, and levelled as necessary on baulk timbers.
- Tree Protective barrier is to be installed with reference to the tree protection plan and the attached drawing at Appendix 1, integrated to Durabase and Site Cabins previously installed. Barrier should to close off and exclude remaining tree protection areas for the duration of work.

4.2 Maintaining Tree Protection for Duration of Work:

- All tree protection measures will be maintained for the full duration of work and only removed just prior to commencement of prior approved landscaping details.
- In event of tree related emergencies Tree Projects must be contacted in the first instance to advise of appropriate steps.
- The site manager will assume responsibility for maintaining tree protection measures including overseeing activity of sub-contractors.

Nick Bentley, 11th April 2011

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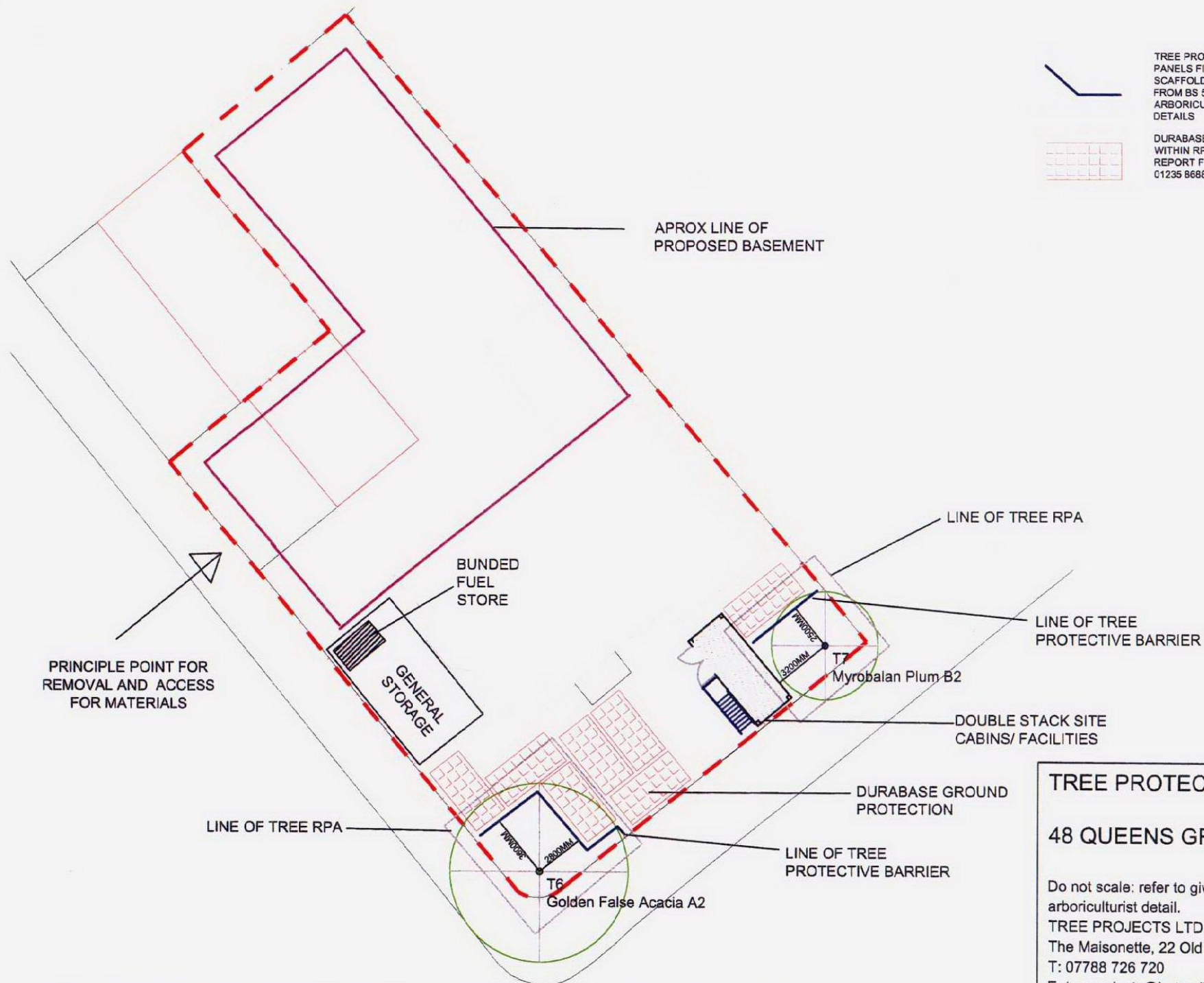
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APPENDIX 1: This Page plus 1:

Tree Protection Plan. Print at A4 Colour



TREE PROTECTIVE BARRIER BY HERRAS
PANELS FIXED TO BACK BRACED
SCAFFOLD FRAMEWORK DERIVED
FROM BS 5837 FIG 2. SEE
ARBORICULTURIST REPORT FOR
DETAILS

DURABASE GROUND PROTECTION
WITHIN RPA. SEE ARBORICULTURIST
REPORT FOR DETAILS OR TERRAFIRMA
01235 868835

TREE PROTECTION PLAN

48 QUEENS GROVE NW8

Do not scale: refer to given measurements or to
arboriculturist detail.

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ALL TREE PROTECTION TO BE FULLY INSTALLED PRIOR TO COMMENCEMENT OF WORK

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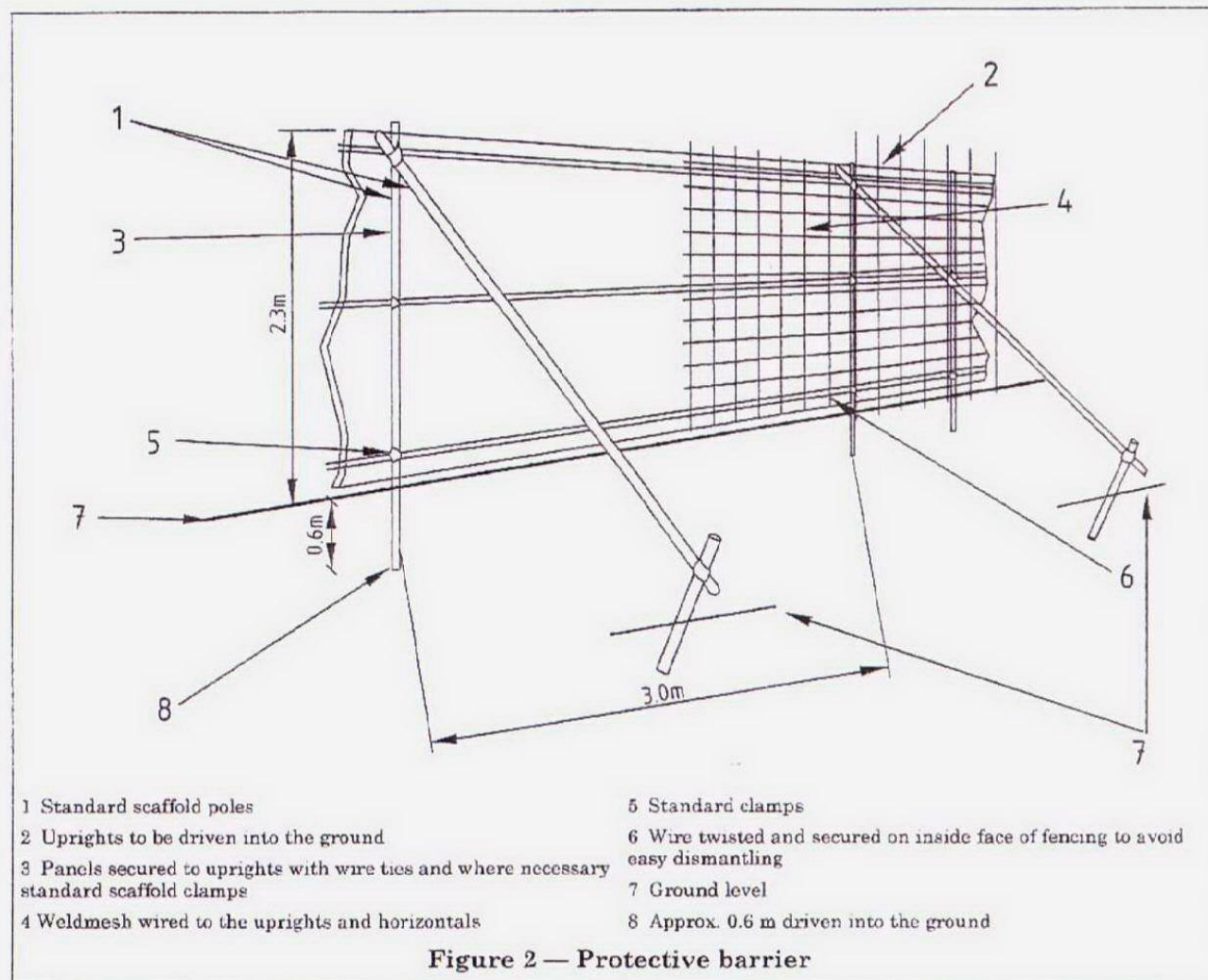
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APPENDIX 2: This Page plus 1:

Tree Protective Barrier, From BS 5837 Fig 2



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APPENDIX 3: This Page plus: 2

Durabase as Ground Protection

For further details contact Terra Firma 01235 868835

www.terrafirma.gb.com

DURA-BASE®

Composite Mat System

In an effort to establish performance standards and to explore feasibility for new applications, Composite Mat Solutions has designed and conducted numerous tests with the DURA-BASE® Composite Mat System. The results viewed by Composite Mat Solutions as most significant are presented in abbreviated form in this document. Anyone having questions regarding the data presented, or issues not addressed here, may contact Composite Mat Solutions at 1-877-MAT ROAD (1-877-628-7623).

General Specifications

Overall Dimensions (Large Mat): 8' x 14' x 4 1/4" (2.44m x 4.27m x 10.8cm)
Surface Dimensions (Large Mat): 7' x 13' (2.13m x 3.96m)
Weight (Large Mat): 1050 lbs. (477 kg)

Overall Dimensions (Small Mat): 8' x 7'6" x 4 1/4" (2.44m x 2.29m x 10.8cm)
Surface Dimensions (Small Mat): 7' x 6'6" (2.13m x 1.98m)
Weight (Small Mat): 550 lbs. (250 kg)

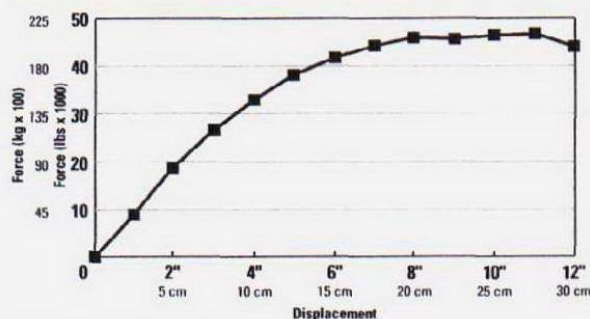
Material (primary): High Density Polyethylene
Coefficient of Friction (neoprene on wet mat): 0.6

All published dimensions are nominal.

Strength



Test apparatus demonstrates mat tolerance to extreme deflection while maintaining high load bearing capacity in pure bending (span = 4 feet (1.2m)). Pure compressive load capacity is approximately 600 psi (40 kg/cm²). Compressive loads in excess of 1000 psi (70 kg/cm²) have been observed in laboratory tests.



Composite Mat Solutions routinely utilizes the mats for unpermitted loads over subgrades of 2 CBR and above.



2900 Hwy. 93 • Carencro, Louisiana 70520 • Fax: (337) 896-1971 • www.compositematsolutions.com

1-877-MAT-ROAD (1-877-628-7623) or (337) 896-8976

Performance Data Sheet

Traffic

Traffic tests on differing soil conditions have shown the mats to be suitable for an average expected life in excess of 15 years. Fatigue tests have shown no appreciable damage at 60,000 cycles [6 inch (15cm) deflection of 8 foot (2.5m) span].

Static Dissipation

Plastics, left untreated, exhibit poor electrical conductivity. This condition, when present in mat material, can lead to a buildup of static charge on the plastic or personnel and result in arcing (mild shock). The DURA-BASE® Composite Mats contain an additive that combines with the plastic and increases the conductivity so a charge may rapidly dissipate, virtually eliminating the potential for static buildup.

Tests have shown the mat surface conductivity to be approximately 10e8 Ohms. The upper limit for a dissipative material is 10e10 Ohms. Field tests have shown the dissipative properties of the composite mat to be equivalent to those of wooden mats.

Temperature Effects

Izod impact tests were conducted to determine the effect of low temperature on material toughness. The results show a transition between -40°F and -4°F (-40°C and -20°C) where the material toughness begins to drop off. All specimens tested above -99°F (-72°C) exhibited signs of ductile failure. The graph presented here shows the impact results relative to room temperature. The impact strength at room temperature of 72°F (22°C) is 2,509 ft-lb/in (134 J/m). DURA-BASE® mats have been successfully employed in environments where -30°F (-34.4°C) temperatures were observed for an extended period of time.

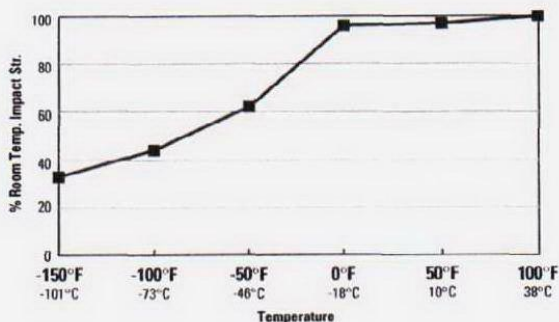


Image Samples of Durabase: as tree root protection area ground protection www.terrafirma.gb.com 01235 868 835

