SJ Stephens Associates

ARBORICULTURAL, LANDSCAPE & MANAGEMENT CONSULTANTS

Savernake Barn
Stokke Common
Great Bedwyn
Marlborough
Wiltshire SN8 3LL

[redacted]

Arboricultural Method Statement

- Tree Survey
- Tree Protection Plan
- Arboricultural Method Statement

For:-

Renovation and Construction of a Rear Extension, Basement, Lower Ground Patio and Bike Store

At:-

1 Hillfield Road
London
NW6 1QD

On behalf of:-

Mr Marcus Sharer
c/o Debtal Architecture
72 Bury New Road
Prestwich
M25 0JU

Prepared by:

Simon Stephens MA Oxon, Dip Arb(RFS), MArborA, C Env. MICFor

[redacted]

Survey Date: 10th November 2022
Report Date: 22nd November 2022
Project no: 2020

CONTENTS

1 BACKGROUND

1.1 Planning Permission has been granted for renovation and extension of 1 Hillfield Road, subject to number of planning conditions. This Arboricultural Method Statement is intended to satisfy planning condition number 8, relating to tree protection.

1.2 Tree details are shown in the Tree Schedule in Appendix B and on the Tree Protection Plan in Appendix A. This plan also includes tree protection measures, which are specified in the Arboricultural Method Statement in section 5 below. Arboricultural supervision required during construction is detailed in section 6.

1.3 The tree survey was undertaken, and this report has been prepared by Simon Stephens MA Oxon, Dip Arb (RFS), MArborA, C Env, MICFor a Registered Consultant with the Arboricultural Association, with over 20 years relevant experience.

1.4 This survey and report have been prepared in accordance with recommendations provided in BS 5837:2012, Trees in relation to design, demolition and construction - Recommendations.

1.5 Documentation supplied:

- Martin Evans Architecture, Proposed Site Plan: drawing no HFR-PL-PRO-SP-B
- Keen Consultants Arboricultural Impact Assessment, dated February 2020
- Keen Consultants, Tree Protection Plan ref: 1325-KC-T2-YTREE-TPP01Rev0

2 SURVEY DETAILS AND SCOPE

2.1 The site survey included trees and shrubs, within and adjacent to the red line boundary, with a stem diameter over 75mm at 1.5m height, as shown located on the Tree Protection Plan, included as Appendix A.

2.2 Tree inspection took place from ground level with the use of binoculars, sounding hammer and metal probe using the Visual Tree Assessment method (Mattheck & Breloer 1994). The presence and condition of bark and stem wounds, cavities, decay, fungal fruiting bodies and any structural defects that could increase the risk of structural failure were noted.

2.3 Tree diameters were measured using a girthing tape and tree heights were measured using a hypsometer. Where use of a tape was restricted by site factors, diameters were estimated, with the diameter recorded in the tree schedule as eg “est 300”.

2.4 At the time of the survey, the weather was finewith no restrictions to visibility. Broadleaf trees were partially in leaf. There were no limitations to access around the trees.

2.5 Tree details are shown on the Tree Protection Plan included as Appendix A. Tree locations have been taken from the topographical survey provided. Where not included on the topographical survey, they have been determined by measuring distances from features shown on the plan, using a laser measuring device. The following information was recorded for each tree, and is shown in the Tree Schedule included as Appendix B:

- **Number:** an identity number for each tree, prefixed with a “T”, which cross references locations shown on the plan with the schedule in Appendix B. Where a number of trees are located close together and are similar in character and management requirements, they have been treated as a Group under a single number, prefixed with a “G”.
- **Species**: common name.
- **Tree height**: approximate height in metres.
- **Stem diameter**: diameter in millimetres, taken at 1.5m above ground. Where there are a number of stems, stem diameters are recorded in the condition column.
- **Branch spread**: approximate spread in metres to N,S,E and W of the trunk. The approximate branch spread is drawn on the plan.
- **Canopy clearance**: approximate height of the canopy above ground. Where a significant, low lateral branch is present, its height and direction of growth is included in the Condition column.
- **Age class**: Young, Semi-mature, Early mature, Mature, Over-mature, Veteran.
- **Condition**: features that affect the safe useful life expectancy and amenity of the tree, including the presence of decay or any physical defect.
- **Management Recommendations**: recommendations to ensure the health and safety of the tree, within the future development.
- **Estimated Remaining Contribution**: <10 years, 5-15 years, 10-20 years, 15-30 years, 20-40 years, >40 years.

- **Category grading**: tree classification taken from BS 5837:2012, Trees in relation to design, demolition and construction (see Appendix C for details), as follows:
    - Category U: Unsuitable for retention, trees with less than 10 years life expectancy, normally recommended for removal (Red)
    - Category A: high quality trees, able to make a substantial contribution for at least 40 years, normally retained unless there is an over-riding reason for removal and appropriate mitigation. (Green)
    - Category B: moderate quality trees, able to make a significant contribution for at least 20 years, normally retained. (Blue)
    - Category B/C: an intermediate category between categories B and C (not specifically described in BS5837). Trees, which should be retained wherever possible, providing retention does not unreasonably constrain the layout. (Blue)
    - Category C: low quality, in adequate condition to remain for at least 10 years, or young trees <150mm stem diameter. Trees which can be removed to allow the desired layout or new planting. (Grey)

  For category A, B and C trees, a subcategory has been allocated, providing information on the reasons for selection of a specific category, as follows:
    - Subcategory 1: mainly arboricultural values.
    - Subcategory 2: mainly landscape values.
    - Subcategory 3: mainly cultural values, including conservation.
- Trees have been classified irrespective of the possible proximity to future construction. The BS 5837 category is colour coded, as indicated above, on the plan included as Appendix A.
- **Protection Distance:** the protection distance in metres required to provide the Root Protection Area recommended in BS 5837, assuming a circular area centred on the tree.
- **Root Protection Area (RPA):** the area in m^2, as recommended in BS 5837, to provide sufficient rooting area to ensure tree survival and which, in most situations, should be fenced off to prevent root damage from construction activities.

3 SURVEY LIMITATIONS

3.1 No internal decay devices, or other invasive tools to assess tree condition, were used.

3.2 No soil excavation or root inspection was carried out.

3.3 This survey has not considered the effect that trees or vegetation may have on the structural integrity of future building through subsidence or heave.

3.4 The tree survey has been undertaken for planning purposes. Although any obvious structural defects have been noted, a Tree Hazard Assessment has not been carried out. Mature trees

close to highly populated areas or public highways should normally be checked for safety annually by a suitably qualified person.

4 LEGAL PROTECTION OF TREES

4.1 The site does not contain any Tree Preservation Orders, nor does it fall within a Conservation Area. However, the lime trees T1 and T11 are council owned trees of high amenity value which must be protected.

5 ARBORICULTURAL METHOD STATEMENT

5.1 Site Overview

5.1.1 Planning permission has been granted for the renovation and extension of the property. This includes a rear extension, which is far enough away from any trees not to affect them. It also includes reducing the levels at the front of the property to construct a patio and bike store, within the Root Protection Area of a mature lime tree, T11.

5.1.2 The Arboricultural Impact Assessment prepared by Keen Consultants included details of trial trench excavations. These did not show significant root growth and planning permission was granted for the works.

5.1.3 However, the trial trench did not cover the area where the bike shed is proposed. The Tree Protection Plan prepared by Keen Consultants states “Trial trench to be extended to identify if roots are present. Significant roots retained. Retained roots sets level of bike store base.”

5.1.4 The proposed site plan is included as Appendix F and the footprint of the extension and the area for reduced levels have been added to the survey drawing, along with tree details, to create the Tree Protection Plan attached as Appendix A.

5.1.5 Trees in the rear garden will not be affected by the proposals. The Lime tree, T11, is a mature tree growing just above a 0.6m retaining wall at the end of Hillfield Road. It has been regularly pollarded. Photos are included in Appendix E.

5.2 Tree Work

5.2.1 No tree work is necessary to complete the approved works. However, removal of a dying cypress (T5) and an insignificant fig (T3) have been specified.

5.2.2 All tree work must be undertaken to the standards set out in BS 3998:2010 Tree work – Recommendations.

5.3 Root Protection Areas

5.3.1 Root Protection Areas are shown for all trees in the tree schedule included as Appendix B. They are also shown for all retained trees, as circular areas centred on the trunk, on the Tree Protection Plan included as Appendix A. Where there are physical obstructions to root growth the Root Protection Area should be shown as an equivalent area that is more likely to reflect actual root growth. The Root Protection Area shows the area around a tree in which all construction activity must normally be excluded, unless appropriate protection measures are implemented.

5.3.2 For tree number T11, where the retaining wall and road will have inhibited root growth, the Root Protection Area has been offset by 20% away from the road, to more closely reflect the likely actual root spread

5.4 Tree Protection Fencing

5.4.1 Tree Protection Fencing must be erected where shown on the Tree Protection Plan, included as Appendix A.

5.4.2 Tree Protection Fencing must be from weldmesh panels, at least 2m high, securely fixed, with wire or scaffold clamps, to a rigid framework. This framework must be constructed from scaffold tubes with vertical tubes, at a maximum interval of 3m and driven into the ground at least 0.6m. The structure must be well braced to resist impacts, constructed as per Figure 2 of BS5837:2012, which is reproduced in Appendix D.

5.4.3 Site hoarding can be used instead of Tree Protection Fencing if it is of solid timber construction and at least 2m in height. Where site hoarding is within the Root Protection Area of trees, post holes must be dug by hand and heavy duty polythene must then be used to line holes before concrete is poured, to prevent the toxic affects of concrete on tree roots. Alternatively the hoarding can be supported by ballast boxes to avoid having to excavate.

5.4.4 After erection of Tree Protection Fencing, 2 days notice must be given to the Local Planning Authority before demolition or construction, including any ground work, starts on site.

5.4.5 Tree Protection Fencing must be maintained and retained for the duration of the works, or until such time as agreed in writing with the arboricultural consultant or the Local Planning Authority.

5.4.6 Weatherproof notices must be fixed to the Tree Protection Fencing, and maintained, stating:-

TREE PROTECTION AREA
KEEP OUT
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS
CONTRAVENTION MAY LEAD TO CRIMINAL PROSECUTION
THE FOLLOWING MUST BE OBSERVED BY ALL PERSONS:

- The Protection Fence must not be moved
- No person or machine must enter the area
- No materials or spoil must be deposited
- No excavation must be permitted

ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY

5.5 Hand Dig Trench

5.5.1 The Hand Dig trenches, shown cross-hatched and shaded red on the Tree Protection Plan, must be dug to formation level by hand.

5.5.2 For the trench sections shown shaded red, where planning permission has been unconditionally approved, any roots found must be neatly severed, using secateurs or a hand saw.

5.5.3 For the trench sections shown hatched red, where planning permission has been approved conditionally, any roots greater than 25mm in diameter must be retained and inspected by the retained arboricultural consultant before being neatly severed, using secateurs or a hand saw.

5.5.4 If significant roots are found, as proposed at planning, these will set the level of bike store base. If significant roots are found close to the surface this will prevent the construction of the bike store and it will have to be omitted.

5.5.5 Heavy-duty polythene must be used to line the side of the trench adjacent to the tree, before concrete for retaining walls is poured, to avoid the toxic affects of cement on tree roots.

5.5.6 On no account must use of an excavator be used in the Hand Dig trenches, which would rip roots and cause unnecessary damage. However, once the hand dig trenches have been completed, the remainder of the area can be excavated with an excavator.

5.6 Services

5.6.1 Existing drainage and services to the house will be utilized so no trenching for services will be required.

5.7 Landscaping

5.7.1 Landscape works carried out within Root Protection Areas must be undertaken with great care so as not to damage shallow roots.

5.7.2 Mechanical cultivation eg. rotovating must not be used within the Root Protection Areas of trees. Instead, if required, areas can be dug over by hand, carefully working around any roots found.

5.8 General measures

5.8.1 No construction activity whatsoever, including routing of underground services, storage of materials or on-site parking, must be allowed within Root Protection Areas, other than that specifically described above.

5.8.2 Fires must not be lit in a position where their flames could extend to within 10m of foliage, branches or trunk.

5.8.3 If any tree shown for retention is removed, uprooted or destroyed, another tree must be planted in the same location, at a size and species to be agreed in writing with the Local Planning Authority.

5.8.4 A copy of this report and the Tree Protection Plan must be kept on site and must be fully understood by the Site Agent.

5.9 Bat roosts

5.9.1 The current legislation makes it a criminal offence to disturb, damage or destroy any bat roost or hibernation area. However, neither of the trees recommended for felling are considered suitable for bats to use either for hibernation or temporary roost sites. The lack of cavities, cracks, loose bark or slab ivy makes it unlikely that bats will use the trees, except possibly for foraging for food. Contractors must be reminded of their responsibilities and should contact the relevant authorities if any signs of bats are found.

5.10 Birds

5.10.1 The current legislation makes it a criminal offence to disturb nesting birds. The nesting season is generally assumed to be from 1st March to 31st July, however this can vary depending on species and location. During these months a careful inspection must be made before work commences and works must be postponed if active nests are found.

6 ARBORICULTURAL SUPERVISION

6.1 Key personnel

- Arboricultural Consultant: Simon Stephens [redacted]
- Architect: Debtal Architecture [redacted]
- Client: Marcus Sharer
- Tree Officer: TBC

6.2 Responsibilities

6.2.1 It must be the responsibility of the Site Agent to ensure that the Arboricultural Method Statement is adhered to at all times by site operatives, contractors and hauliers. Tree protection arrangements must form part of the site induction for all staff and sub-contractors.

6.2.2 If any problems arise, the Site Agent must inform the arboricultural consultant who must assess the situation and make recommendations accordingly. If the Arboricultural Method Statement requires revision, the Tree Officer must be informed and approval must be given.

6.2.3 A copy of the Arboricultural Method Statement must be kept on site and must be fully understood by the Site Agent.

6.3 Arboricultural Consultant Input

6.3.1 The retained arboricultural consultant must attend a site meet with the contractor on site, prior to construction or ground work starting, to ensure that this Arboricultural Method Statement is fully understood and can be complied with in full. The Tree Officer must be invited to this meeting.

6.3.2 If any revisions are required to tree protection measures, a revised Arboricultural Method Statement must be approved by the Local Planning Authority, prior to construction or ground work starting on site.

6.3.3 The arboricultural consultant must inspect the Tree Protection Fencing, prior to construction or ground work starting on site.

6.3.4 The arboricultural consultant must visit site after the hand dig trench has been completed, (with any roots >25mm diameter retained in the section shown cross hatched red on the Tree Protection Plan).

6.3.5 The arboricultural consultant must visit site at least once a month during the period that construction works are taking place at the front of the property.

6.3.6 The details of each site visit must be recorded using a site visit proforma, with copies circulated to the contractor, client, architect and the local authority Tree Officer, within 5 working days of the visit.

6.4 Variations and Incidents

6.4.1 Any changes to the proposed site plans, including changes to service runs or construction access, must be notified to the arboricultural consultant. If changes are within the Root Protection Areas, or if trees could be affected a revised Arboricultural Method Statement must be prepared and agreed by the Local Planning Authority before work starts.

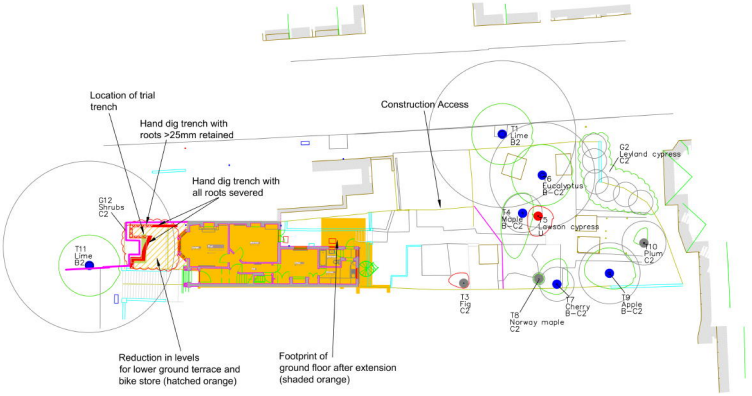
6.4.2 Any unexpected incidents on site that could affect trees must be notified to the arboricultural consultant immediately. Such incidents include, for example, finding roots outside areas of Tree Protection Fencing, spillage of any contaminants or damage occurring to the stems or branches of trees.

6.4.3 If the arboricultural consultant considers that the incident could affect the future health of trees, the Local Planning Authority must immediately be informed. In any case, the arboricultural consultant must provide guidance to site staff and, if necessary, attend site. Details of all incidents, and any action taken in mitigation must be included in the next site visit report.

7 REFERENCES

- *BS5837:2012 Trees in relation to design, demolition and construction – Recommendations.*
- *BS3998:2010 Tree Work. Recommendations.*
- *Common sense risk management of trees (FCMS024). Published by the National Tree Safety Group (www.ntsgroup.org.uk)*

APPENDIX A



BS 5837: TREE CATEGORY GUIDE

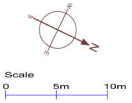
Category U: Unsuitable for retention, trees with less than 10 years life expectancy.

Category A: high quality trees, able to make a substantial contribution for at least 40 years, normally retained unless there is an over-riding reason for removal and appropriate mitigation.

Category B: moderate quality trees, able to make a significant contribution for at least 20 years, normally retained.

Category B/C: an intermediate category between categories B and C (not specifically described in BS5837). Trees, which should be retained wherever possible, providing retention does not significantly constrain the layout.

Category C: low quality, in adequate condition to remain for at least 10 years, or young trees <150mm stem diameter. Trees which can be removed to allow the desired layout or new planting.



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JOB TITLE	1 HILLFIELD ROAD
DRAWING TITLE	TREE PROTECTION PLAN
DRAWING NUMBER	2020-01
REV	
REVISIONS	
SCALE	1:200 at A2
DATE	NOV 22
DRAWN BY	sjss

Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Branch Spread (m)				Canopy Clearance (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protection Distance (m)	Root Protect. Area (m2)
				N	S	E	W								
T1	Lime	11	600	3	3	3	3	1.8	Mature	Regularly pollarded- now with up to 1.6m fresh growth. Showing good vigour. Some movement of adjacent paving slabs.		20-40	B2	7.2	163
G2	Leyland cypress	4	100-180	0	0	0	0	0.6	Early mature	Previously topped at 3m. Tightly trimmed to north.		10-20	C2	2.2	15
T3	Fig	3	80	0.5	1.5	0.5	1	0.5	Semi-mature	Two main stems.	Remove	15-30	C2	1.0	3
T4	Maple	7	160	1	2	4.5	2	1.7	Semi-mature	Leaning to east. Poor structure.		15-30	B-C2	1.9	12
T5	Lawson cypress	3.5	110	1.5	1	2	1	0.5	Semi-mature	Extensive dieback.	Remove	<10	U	1.3	5
T6	Eucalyptus	10	430	3	3	3	3	1.7	Early mature	Three way fork at 1.6m. Previously topped at 3m- at which point branches at risk of future breakout. Good vigour.		15-30	B-C2	5.2	84
T7	Cherry	4	140	1	2	1	2.5	1	Early mature	Attractive small tree.		15-30	B-C2	1.7	9
T8	Norway maple	5	50	0.5	0.5	0.5	0.5	1.6	Young	Self sown tree growing strongly. Bifurcates at 2m.		>40	C2	0.6	1
T9	Apple	4	250	2.5	2.5	1.5	2.5	1.7	Mature	Only moderate vigour, but could be an attractive feature of a redesigned garden.		15-30	B-C2	3.0	28
T10	Plum	2	180	0	1	0	1.5	0.7	Mature	Previously topped. Little live growth remaining.		5-15	C2	2.2	15
T11	Lime	16.5	est 700	3	3	3	3	1.6	Mature	Growing just above 0.6m retaining wall. Multiple stems from 4m. Regularly pollarded- now with up to 1.2m fresh growth. Dense ivy to 5m. Good vigour. Cracks in retaining wall.		20-40	B2	8.4	222
G12	Shrubs	1-2.5	20-50	0	0	0	0	0	Mature	Dense shrubs including photinia and low quality acer palmatum.	Remove to construct terrace and bike store.	10-20	C2	0.6	1

BS 5837:2012, Table 1 Cascade chart for tree quality assessment

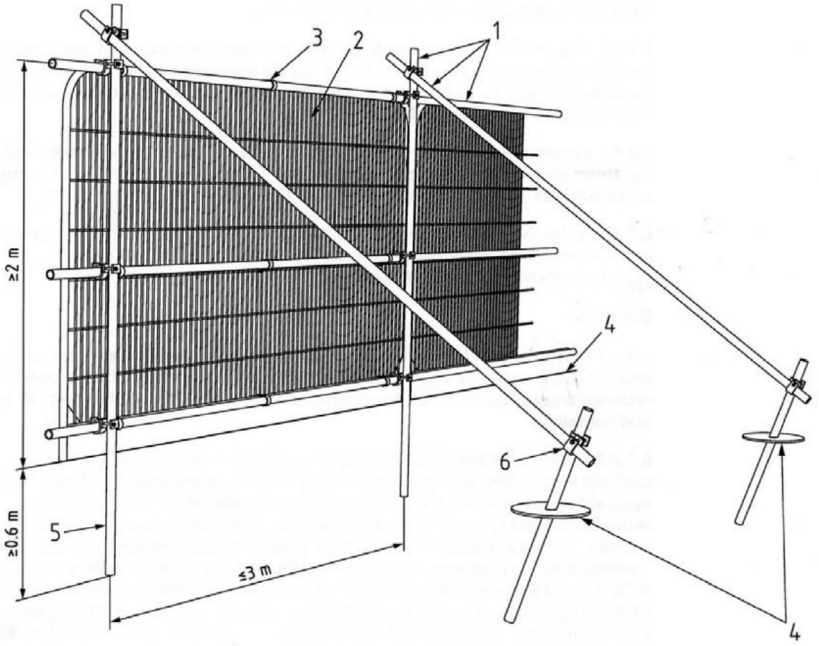
Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 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 *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

British Standard BS 5837:2012 — Appendix D
Default specification for protective barrier

Figure 2

Key

1. Standard scaffold poles
2. Heavy gauge 2 m galvanised 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



Examples of above-ground stabilising systems

Figure 3a
Stabiliser strut with base plate secured with ground pins

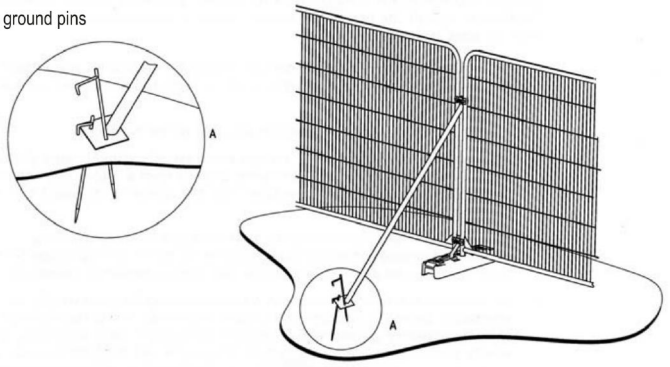
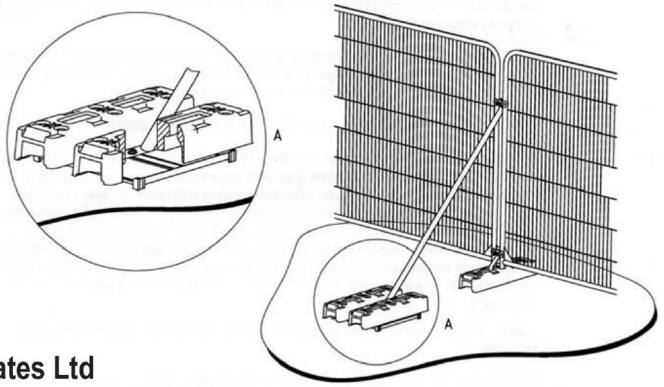


Figure 3b
Stabiliser strut mounted on block tray



Appendix E


T11
Area of ground to be reduced for new terrace and bike store


T11

Appendix F

NOTES

DO NOT SCALE FROM THIS DRAWING

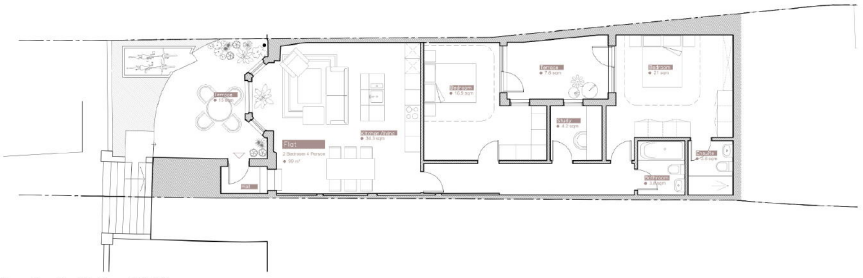
PLANNING

NOTE

This drawing is submitted as part of a planning listed building or conservation area consent application and is not intended for any other purpose.

All sizes, services & structures are based on measured readings and any overall dimension should not be relied upon to give accurate measurements.

N



Proposed Lower Ground Floor Plan - 1:100@A3

1:100 ratio @ A3

0 1m 2m 4m

Revision A	**10/09/19**
Adaptations to front entrance	
Revision B	**01/01/20**
Adaptations to front entrance	
Revision C	**20/03/20**
Adaptations to lightwell	
Revision D	**01/05/20**
Adaptations to lightwell	
Revision E	**04/05/20**
Adaptations to lightwell	

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London EC2A 3PB
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JOB
Hilfield Road
London
NW2

TITLE
Proposed
Lower Ground Floor Plan

DATE	21.05.2019
SCALE	1:100 @ A3
DRAWN	G.R.

DRAWING NO. HFR-PL-PR_01E