Arboricultural Method Statement

Proposed off street parking – Ferndene Road, Manchester, M20

Prepared for:

Groundwork MSSTT

Our Ref: 13/AIA/MAN/08

21 November 2013

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1.0 Introduction

1.1 Tree Solutions Ltd has been commissioned by Groundwork MSSTT to prepare site specific Arboricultural Method Statement (AMS) in order to provide information to assist all parties involved in the planning process to make balanced judgements with regard to arboricultural features in relation to the proposed off street parking off Ferndene Road, Manchester. As such, all significant trees within influencing distance to the development proposal both on and adjoining the site have been surveyed and are listed within a Tree Survey Schedule (***Appendix 1***) and plotted on all accompanying plans.

1.2 This Method Statement sets out the methodology and protection measures for all works within close proximity to trees located on and adjoining the site as indicated on the Tree Protection Plan at ***Appendix 3***. Compliance with this method statement will be a requirement of all relevant contracts associated with the approved development. Copies of this document will be made available for inspection on site.

1.4 Trees to be retained and details including the designated Root Protection Area and location of tree protective fencing are clearly indicated on the Tree Protection Plan ref 13/AMS/MAN/09, Drawing No 2 which is at ***Appendix 2*** to this report.

1.5 The purpose of the AMS is to provide information on protection and control measures affecting the existing tree stock. The works, with applicable methodology, are divided into the sequence of operations at paragraph 4.0:

2.0 STATUTORY CONTROLS

2.1 We have been unable to ascertain if any trees are subject to a Tree Preservation Order. You are strongly advised to gain this information prior to commencing any works on site.

3.0 SITE PLAN

3.1 The observations and recommendations contained in this document relate to the proposed site layout drawing Ref: 1906/10 provided by Groundwork MSSTT.

3.2 The method statement should be read in conjunction with the enclosed Tree Protection Plan, which is based upon the above drawing.

4.0 SEQUENCE OF OPERATIONS

From commencement of the above development, the following methodology shall be implemented in the manner and sequence described:

1. Erect temporary protective fencing
2. Installation of ‘No-Dig’ parking bays
3. Main construction phase
4. Removal of temporary fencing
5. Landscaping within RPA’s

1. Temporary Tree Protective Fencing Erection

1. Prior to commencement of any site engineering works, construction, preparation, excavation or material deliveries the main contractor shall erect the temporary protective fencing as detailed in the ‘Tree Protection Specification’ and in the location indicated on the Tree Protection Plan.

2. Installation of 'No-Dig' parking bays

1. Prior to any construction work or movement of all plant and material from on site, the vehicular access shall be constructed using a no-dig three dimensional cellular confinement system in accordance with the engineers and manufacturers recommendations see example drawing below.
2. Construction shall ideally be undertaken in dry weather when ground is driest and least prone to compaction
3. Ground vegetation should be killed using a translocated herbicide such as glyphosate. To prevent severe oxygen depletion in the soil during the process of decomposition, all dead organic material shall be removed
4. All major protrusions such as rocks and demolition material shall be removed minimizing ground disturbance. All hollows will be filled with sharp sand
5. Permeable matting will then be laid and the cellular confinement system laid on top and pegged in place.
6. The cellular confinement system will then be installed in accordance with the manufacturer's guidelines using **no-fines** aggregate. Fill the cells working from the area furthest from the tree first. Further filling should be carried out using the filled Cellweb as a platform
7. Edging will be constructed with tantalised boards attached to pegs driven into the ground. Pegs should be long enough to give adequate support during construction
8. Install a permeable wearing course, e.g. block paviours or porous tarmac placed on the aggregate. Paving slabs or brick paviours should be dry-bedded on the sub-base and joints left unsealed
9. Tree Solutions will be responsible for monitoring all excavation works and issuing a certificate of practical completion
10. **Under no circumstances is limestone aggregate to be used**

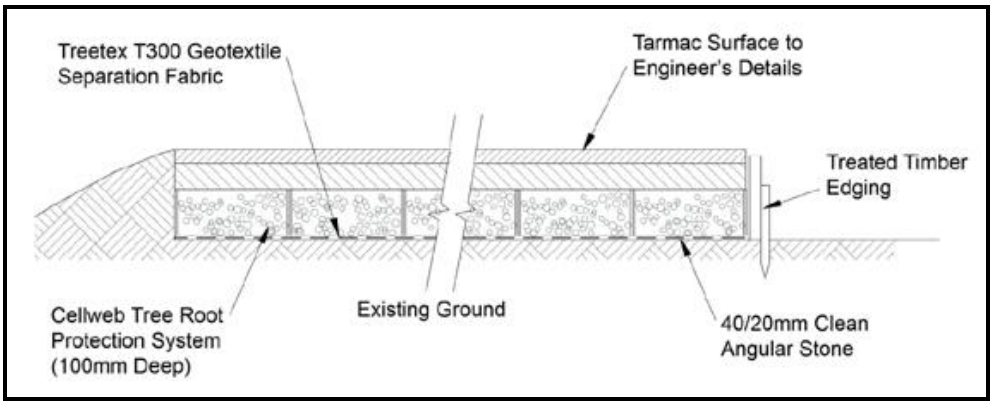

Plate 1 – Cross section through 'No-Dig' Three Dimension Cellular Confinement System using 'Cellweb' supplied by Geosynthetics (www.geosyn.co.uk)

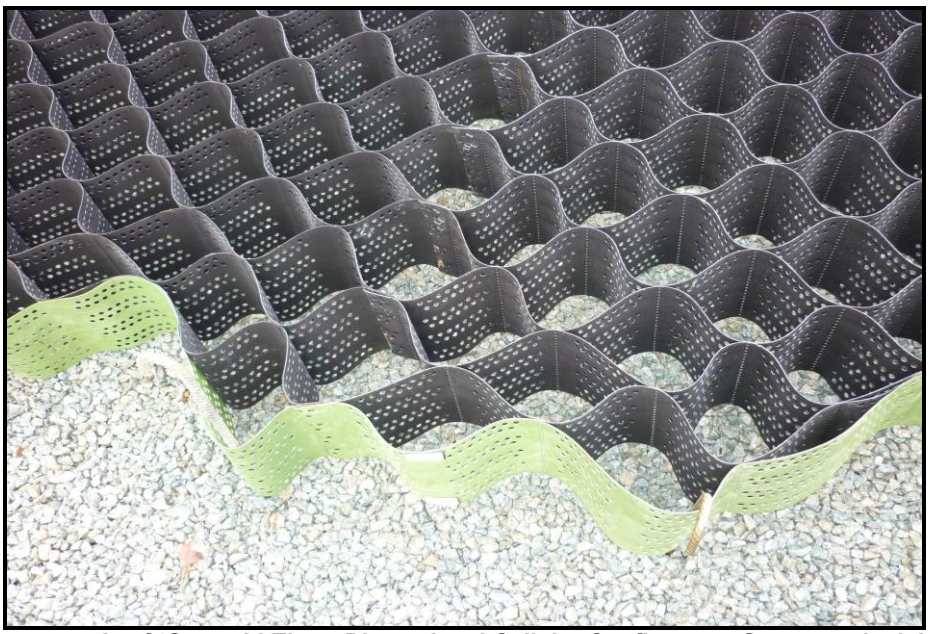

Plate 2 – Example of 'Geoweb' Three Dimensional Cellular Confinement System to be laid above existing ground level

3. Main Construction Phase

1. There shall be no storage of construction material, site parking, site accommodation or equipment in any area designated as the Root Protection Area (RPA) and Construction Exclusion Zone (CEZ) and enclosed by Temporary Protective Fencing
2. No materials that are likely to have an adverse effect on tree health such as oil, bitumen or cement will be stored or discharged within 10 metres of the trunk of a tree that is to be retained. No fires will be lit.
3. The site agent shall supervise deliveries by self-loading crane, with vehicles positioned in such a manner that retained trees are not at risk of damage.

Avoiding Damage to Stems and Branches

4. Care shall be taken when planning site operations in proximity to trees to ensure that wide or tall loads or plant with booms, jibs and counterweights can operate without coming into contact with retained trees. Such contact can result in serious injury resulting in safe retention impossible.

On Site Storage of Spoil and Building Materials

5. Prior to and during all site construction works no spoil will be stored within the crown spread on any tree on or adjacent to the site even if proposed site work is to be within the crown spread. Any encroachment within this protected area will only be with the prior agreement of the LPA Arboricultural Officer.

4. Remove all Temporary Tree Protective Fencing

1. Tree Protective fencing will only be removed upon completion of all construction work and once all machinery associated with the works has left site.

5. Landscaping within the RPA of trees

1. Landscaping works will be implemented in accordance with a scheme approved by the LPA
2. There shall be **no rotovation** of ground within any area designated as a Root Protection Area (RPA) and Construction Exclusion Zone (CEZ) and enclosed by Temporary Protective Fencing.
3. No hard landscaping works or excavation for cables or any other service should be installed within the Root Protection Area (RPA) and Construction Exclusion Zone (CEZ) without the written consent of Cheshire West & Chester Council.

TREE PROTECTIVE FENCING

1 Before the commencement of any demolition and subsequent construction works on site (other than those set out in the schedule of tree works contained in this document), protective fencing will be erected as detailed on the Tree Protection Plan and as specified below. The LPA Tree Officer will be given 5 days notice upon completion of the fencing in order to inspect and approve prior to the commencement of any site works.

2 The fencing will consist of a scaffold framework in accordance with Figure 2 of BS 5837 – 2012 (illustration below) comprising a metal framework, both vertical and horizontal, well braced to resist impacts. Vertical tubes will be spaced at a maximum interval of 3m. Onto this, weldmesh panels shall be securely fixed with wire or scaffold clamps. Weldmesh panels on rubber or concrete feet are not considered resistant to impact and for this reason will not be used. The site manager or other suitably qualified appointed person will be responsible for inspecting the protective fencing on a daily basis; any damage to the fencing or breaches of the fenced area will be rectified immediately.

3 Clearly legible weatherproof signage, stating “Protected Trees – Exclusion Zone” shall be attached to the fencing 1.5m from the ground, facing out of the Tree Protection Zone located at regular intervals along the fence line.

4 The fencing will remain in place until completion of all site works and then only removed when all site traffic is removed from site.

5 Other than works detailed within this method statement or approved in writing by the Local Planning Authority (LPA), no works including storage or dumping of materials shall take place within the exclusion zones defined by the protective fencing.

Protective Fencing Detail

1. Magenta



Example of Tree Protective Fencing Specification

Appendix One

Tree Survey Schedule

TREE SURVEY SCHEDULE (BS5837: 2012)

TREE SOLUTIONS LTD

SITE:	GROUNDWORK MSSTT
CLIENT:	LAND OFF FERNDENE ROAD, MANCHESTER
BRIEF:	ARBORICULTURAL IMPACT ASSESSMENT

SURVEYOR:	A. HENDERSON
ASSESSMENT DATE:	12 NOV 2013
VIEWING CONDITIONS:	GOOD
JOB REFERENCE:	13/AIA/MAN/09

TREE NO. T - Tree G - Group H- Hedge	SPECIES (COMMON NAME)	AGE	HEIGHT (m) + CROWN CLEARANCE/ DIRECTION OF GROWTH (N.S.E.W)	RADIAL CROWN SPREAD (m) N	S	E	W	STEM/ MULTI-STEM* DIA.(mm)	VITALITY	COMMENTS	MANAGEMENT	CATEGORY & SUB-CATEGORY GRADING BS 5837	BS 5837 RADIUS (m) RPA (m^2)
T1	Holly	M	12 2N	3.5	3.5	3.5	3	290 X3 (502)	G	• 3 stems from base, all recorded to give combined diameter as per BS • No significant defects • Provides good evergreen screening to road • E.R.C. 20	• N/A	B2	6 114m²
T2	Holly	M	16 1.5S	5	5	5	5	390	G	• As T1 • E.R.C. 20	• N/A	B2	4.7 69m²
T3	Malus	M	5 2W	4	2	3	2	220	G	• Small ornamental with no visual defects • E.R.C. 20	• N/A	B2	2.6 22m²

HEADINGS & ABBREVIATIONS

TREE NO.	REFERENCE NUMBER. REFER TO PLAN OR NUMBERED TAGS WHERE APPLICABLE (T = TREE, G = GROUP, H = HEDGE)
SPECIES:	COMMON NAME (LATIN NAMES AVAILABLE ON REQUEST)
AGE RANGE/LIFE STAGE:	Y = YOUNG, SM = SEMI MATURE, EM = EARLY MATURE, M = MATURE, PM = POST MATURE
HEIGHT:	ESTIMATED AND RECORDED IN METRES. APPROXIMATELY 1 IN 10 TREES ARE MEASURED USING A CLINOMETER AND THE REMAINDER ESTIMATED AGAINST THE MEASURED TREES
CROWN SPREAD:	MAXIMUM CROWN RADIUS MEASURED TO THE FOUR CARDINAL COMPASS POINTS FOR SINGLE SPECIMENS ONLY (MEASUREMENT FOR TREE GROUPS - MAXIMUM RADIUS OF THE GROUP)
CROWN CLEARANCE & DIRECTION OF GROWTH:	HEIGHT IN METERS OF CROWN CLEARANCE ABOVE ADJACENT GROUND LEVEL (TO INFORM ON GROUND CLEARANCE, CROWN/STEM RATIO AND SHADING)
STEM DIA/MULTI-STEM DIA:	STEM DIAMETER - MEASURED AT APPROXIMATELY 1.5 METRES ABOVE GROUND LEVEL OR A COMBINATION OF STEMS FOR MULTI-STEMMED TREES
VITALITY:	A MEASURE OF PHYSIOLOGICAL CONDITION. D = DEAD, MD = MORIBUND, P = POOR, M = MODERATE, G = GOOD
E.R.C. = ESTIMATED REMAINING CONTRIBUTION:	RELATIVE USEFUL LIFE EXPECTANCY (YEARS)
BS 5837CATEGORY & SUB-CATEGORY GRADING:	A = HIGH QUALITY AND VALUE, B = MODERATE QUALITY AND VALUE, C = LOW QUALITY AND VALUE, U = UNSUITABLE FOR RETENTION (SUB-CATEGORY REFERS TO ARBORICULTURAL., LANDSCAPE AND CULTURAL/CONSERVATION VALUES)
BS 5837 RADIUS & BS 5837 RPA:	PROTECTIVE DISTANCE - RADIUS FROM THE CENTRE OF THE STEM TO THE LINE OF TREE PROTECTION (CONSTRUCTION EXCLUSION ZONE - CEZ) AND PROTECTIVE BARRIER ROOT PROTECTION AREA - BS 5837 (2012) ANNEX D (THE RECOMMENDATIONS STATE THAT THE RPA SHOULD BE CAPPED AT 707 M^2) NOTE – ALL CALCULATIONS ROUNDED TO NEAREST DECIMAL

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

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Appendix Two

Impact Assessment Plan

All parking bay are 3 x 6m and will drain to soak-a-ways

1
2
3
4
5
6
FERNDENE GARDENS

ground cover planting

existing planting bed retained

ground cover planting

new boundary fencing/railing

T3

T1

T2

TP

drop crossing to MCC specification

porous bitmac surfacing

existing drop crossing

porous bitmac surfacing

drop crossing to MCC specification

porous bitmac surfacing

FERNDENE ROAD

N
W
E
S

5m 10m

Legend

Root Protection Area Modified to Account for Site Features

Category
Crown Spread
Tree Number
Root Protection Area
T3

- Category A (High Quality)
- Category B (Moderate Quality)
- Category C (Low Quality)
- Category U (Dead/Dying/In Decline)

Client: Groundwork MSSTT	
Project: Proposed off road parking Ferndene Road	
Title: Arboricultural Impact Assessment	
Scale: 1:200 @ A3	Date: November 2013
Drawn By: LI & AM	Revision: A
Job Ref: 13/AIA/MAN/09	Drawing No: 01

Do not scale from this drawing all dimensions to be checked on site.

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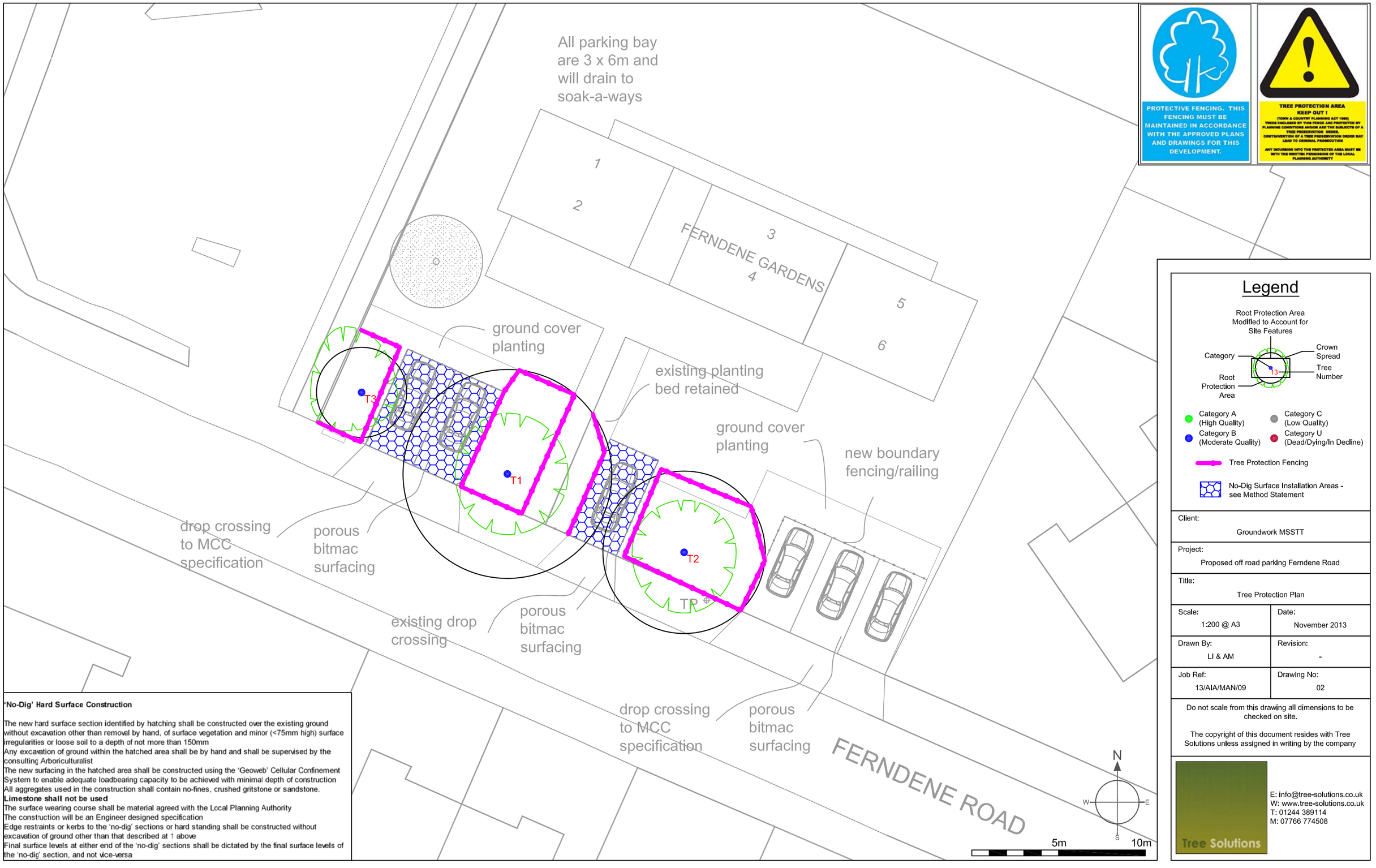
Appendix Three

Tree Protection Plan



Legend

- Category A (High Quality)
- Category B (Moderate Quality)
- Category C (Low Quality)
- Category U (Dead/Dying/In Decline)
- Tree Protection Fencing
- No-Dig Surface Installation Areas - see Method Statement

Client: Groundwork MSSTT	
Project: Proposed off road parking Ferndene Road	
Title: Tree Protection Plan	
Scale: 1:200 @ A3	Date: November 2013
Drawn By: LI & AM	Revision: -
Job Ref: 13/AIA/MAN/09	Drawing No: 02

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'No-Dig' Hard Surface Construction

The new hard surface section identified by hatching shall be constructed over the existing ground without excavation other than removel by hand, of surface vegetation and minor (<75mm high) surface irregularities or loose soil to a depth of not more than 150mm
Any excavation of ground within the hatched area shall be by hand and shall be supervised by the consulting Arboriculturalist
The new surfacing in the hatched area shall be constructed using the 'Geoweb' Cellular Confinement System to enable adequate loadbearing capacity to be achieved with minimal depth of construction
All aggregates used in the construction shall contain no-fines, crushed gritstone or sandstone.
Limestone shall not be used
The surface wearing course shall be material agreed with the Local Planning Authority
The construction will be an Engineer designed specification
Edge restraints or kerbs to the 'no-dig' sections or hard standing shall be constructed without excavation of ground other than that described at 1 above
Final surface levels at either end of the 'no-dig' sections shall be dictated by the final surface levels of the 'no-dig' section, and not vice-versa

Appendix Four

Photographs



Photo 1 – Tree number 2 – note existing level ground conditions suitable to laying no-dig cellular confinement system



Photo 2 – Tree number 3



Photo 3 – T1 viewed from Ferndene Road