

Sylva Consultancy
expert arboricultural advice

ARBORICULTURAL IMPACT ASSESSMENT

Trinity College
Broad Street
Oxford
Oxfordshire
OX1 3BH

January 2021

Ref: 20165/AIA

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CONTENTS

1.	Introduction	3
2.	Arboricultural Survey	4
3.	Principle arboricultural Implications	5
4.	Summary	7

APPENDICES

1.	Site Location Plan	8
2.	Arboricultural Impact Assessment Plan	9
3.	Example of a Cellular Confinement System	10
4.	Qualifications	11

1. INTRODUCTION

1.1 Instructions

- 1.1.1 This Arboricultural Impact Assessment has been prepared to assess the likely impact and effect regarding the proposal to construct a new bin store facility at Trinity College, Oxford (Appendix 1).
- 1.1.2 This appraisal assesses the impact of the proposal in relation to the trees surveyed and discusses mitigation measures that may have to be adopted.

1.2 Arboricultural Survey

- 1.2.1 During October 2020 select tree survey data from Sylva Consultancy's 2018 Arboricultural Report was revised and updated. This review was carried out in accordance with British Standard 5837:2012 'Trees in relation to Design, Demolition and Construction-Recommendations' and good arboricultural practice. This is a basic data collection exercise and a record of the trees condition at the time of surveying.

1.3 Tree Protection

- 1.3.1 A desk top study of information posted on Oxford City Councils' website (OCC) website details that the site is located within Central Conservation Area. In addition, the website reveals that no Tree Preservation Orders (TPO's) are present on trees within or adjacent to the site.
- 1.3.2 Trees in a Conservation Area that are not protected by a TPO are protected by the provisions in section 211 of the Town and Country Planning Act 1990. Anyone who **cuts down, uproots, tops, lops, wilfully destroys or wilfully damages a tree** in a Conservation Area (if that tree is not already protected by a Tree Preservation Order), or causes or permits such work, without giving a section 211 notice (or otherwise contravenes section 211 of the Town and Country Planning Act 1990 is guilty of an offence, unless an exception applies.

1.4 Site Description

- 1.4.1 The area surveyed is land within the south east corner of Trinity College. To the east of the site is Parks Road with the Western Library located to the south. In the south eastern corner of the site are existing buildings known within the College as the Presidents Garage.

1.5 Proposed Development

- 1.5.1 It is proposed to construct a new bin store facility. The purpose of this report to assist with the design process.
- 1.5.2 All tree numbers referred to in this document relate to the tree numbers annotated on the tree constraints plan and arboricultural impact assessment plan (Appendix 2).

2. ARBORICULTURAL SURVEY

2.1 Eight trees have been recorded within this assessment. The tree quality is assessed as follows:

U: Trees that are considered to be of such condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboriculture management. However, if category 'U' trees are placed in an inaccessible location such that concerns over public safety are reduced to an acceptable level, it may be preferable or possible to defer this recommendation.

A: Trees of the highest quality and value and are considered to be of such a condition as to be able to make a substantial contribution (e.g. 40 years +).

B: Trees of moderate to high value and are considered to be of such a condition as to be able to make a significant contribution (e.g. 20 years +).

C: Trees of low quality with an estimated life expectancy of at least 10 years. Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories. Young trees with a stem diameter of less than 150mm should be considered for relocation or replacement through mitigation (e.g. 10 years).

Category A, B & C trees are further divided into sub-categories. These sub-categories carry equal weight and are selected for either arboricultural values, landscape values or cultural values, including conservation. Within the British Standard 5837:2012 it is recommended to record hedge and shrub masses, however in the context of the standard it is not necessary to assess the quality of these or to provide a category classification.

The numbers of trees falling under each classification within the arboricultural survey are as follows:

U: 2 trees

A: 0 trees

B: 4 trees

C: 2 trees

3. PRINCIPLE ARBORICULTURAL IMPLICATIONS

3.1 Introduction

- 3.1.1 Consideration is given to the significance of the trees identified in the arboricultural tree survey, the constraints that they are likely to pose to any development that may occur, post development implications (if any) and work requirements to trees for reasons of sound arboricultural management in order to facilitate the development (BS5837:2012 Section 5.4).
- 3.1.2 This appraisal assesses the impact of the potential to re-develop the site in relation to the trees and discusses mitigation measures that may have to be adopted.

3.2 Trees

- 3.2.1 The trees surveyed are within close proximity to the proposed bin store location. The location of the bin store and trees are separated by an existing pedestrian pathway which will be retained and upgraded.
- 3.2.2 The Wildlife & Countryside Act 1981, as amended by the Countryside Rights of Way Act 2000, provides statutory protection to birds, bats and other species that inhabit trees. These have the potential to pose additional constraints on the use and timings of works that may occur to trees located at the site. These issues are beyond my expertise and it is recommended that appropriate advice is sought prior to the implementation of any works considered within this report.

3.3 Overview

- 3.3.1 The tree survey data identifies that the most notable trees within influencing distance of the proposals are the category 'B' trees.
- 3.3.2 The appended arboricultural impact plans illustrates the proposals in relation to adjacent trees. In addition to pre-development concerns, post development concerns such as debris and concerns of the trees' proximity and juxtaposition to the proposal have also been considered during the design process.
- 3.3.3 An assessment of the design on the tree stock reveal that no trees will be removed to implement the proposals.
- 3.3.4 The scheme has undergone a careful design process to ensure an efficient use of the site, whilst safeguarding the continued contribution to the greening of the immediate landscape. On the bases of the appraisal, it is considered that the arboricultural impact of the scheme on the tree stock will not result in an adverse impact on the character and appearance of the conservation area, site, or wider landscape.

3.4 Impact of the proposal on the tree stock

Overview

- 3.4.1 Tree T64a (Robinia) has a landscape values of less than 10 years in accordance with BS5837:2012. As such it is recommended to remove this tree regardless of any development occurring.
- 3.4.2 Trees assessed as category 'U' trees are of such condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboriculture management. However, if category 'U' trees are placed in an inaccessible location such that concerns over public safety are reduced to an acceptable level, it may be preferable or possible to defer this recommendation.
- 3.4.3 Category 'U' trees are not considered within this report as there is an expectation these trees would be removed regardless of development under good arboricultural management.
- 3.4.4 Whilst trees in categories 'A', 'B' and 'C' are all a material consideration in the development process, the retention of category 'C' trees, being of low quality or of only limited or short-term potential, will not normally be considered necessary where they impose a significant constraint on development. Furthermore, BS 5837:2012 makes it clear that young trees, even those of good form and vitality, which have the potential to develop into quality specimens when mature "*need not necessarily be a significant constraint on the site's potential*".

3.5 New Bin Store Facility

- 3.5.1 No trees will be removed to implement the proposal.
- 3.5.2 The bin store will be positioned over an existing shrub bed. Prior to construction the shrub bed and retaining planter edge will be removed. The arboricultural impact assessment plan illustrates the anticipated rpa of trees T62 (yew) and T63 (lime) fall within this area. It has been deemed that there will be a reduction in root activity from trees T62 & T63 in the upper horizons of the shrub bed due to root competition that will be occurring within this location. As a result it is concluded that the construction of the bin store will not have an adverse impact on the long-term health and condition of these trees.
- 3.5.3 The framework of the bin store will be constructed using a series of support posts. Where the excavation works fall within the rpa of adjacent trees this will be carried out using handheld equipment.
- 3.5.4 The scheme requires upgrading works to the existing pedestrian path. Where this work occurs within the rpa of adjacent trees this will be constructed using a no dig design principle and based on a cellular confinement system (Appendix 3).
- 3.5.5 To accommodate the work minor crown lifting pruning works are required to trees T63 (lime) and T65 (yew). It is concluded that these trees can be pruned to acceptable standards in accordance with British Standard 3998:2010 'Tree Works - Recommendations'.

3.6 Construction

- 3.6.1 Careful consideration has been given regarding the buildability of the proposals. The arboricultural impact plan illustrates that sufficient room exists to locate the site compound and contractor parking outside the RPA's of the retained trees.
- 3.6.2 Fence protection is required for retained trees. The fencing will comprise of Heras fencing and will be based on Figure 2 'Default Specification for Protective Barrier' as recommended within the British Standard 5837:2012. Where appropriate the fencing will be braced to withstand impacts.
- 3.6.3 No new services are required.

4. SUMMARY

4.1 Conclusions

- 4.1.1 Consideration for both the direct impact and indirect impact of the proposals with respect to the trees has been assessed. With respect to the trees, it is concluded that their successful integration into the layout can be achieved.
- 4.1.2 Careful planning of site operations must be carried out to avoid any adverse impact to the retained trees. To safeguard the trees through the development it is advised that a site specific Arboricultural Method Statement is drawn up and implemented.

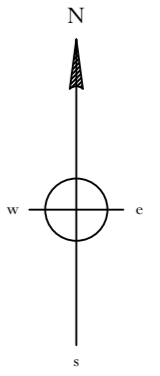
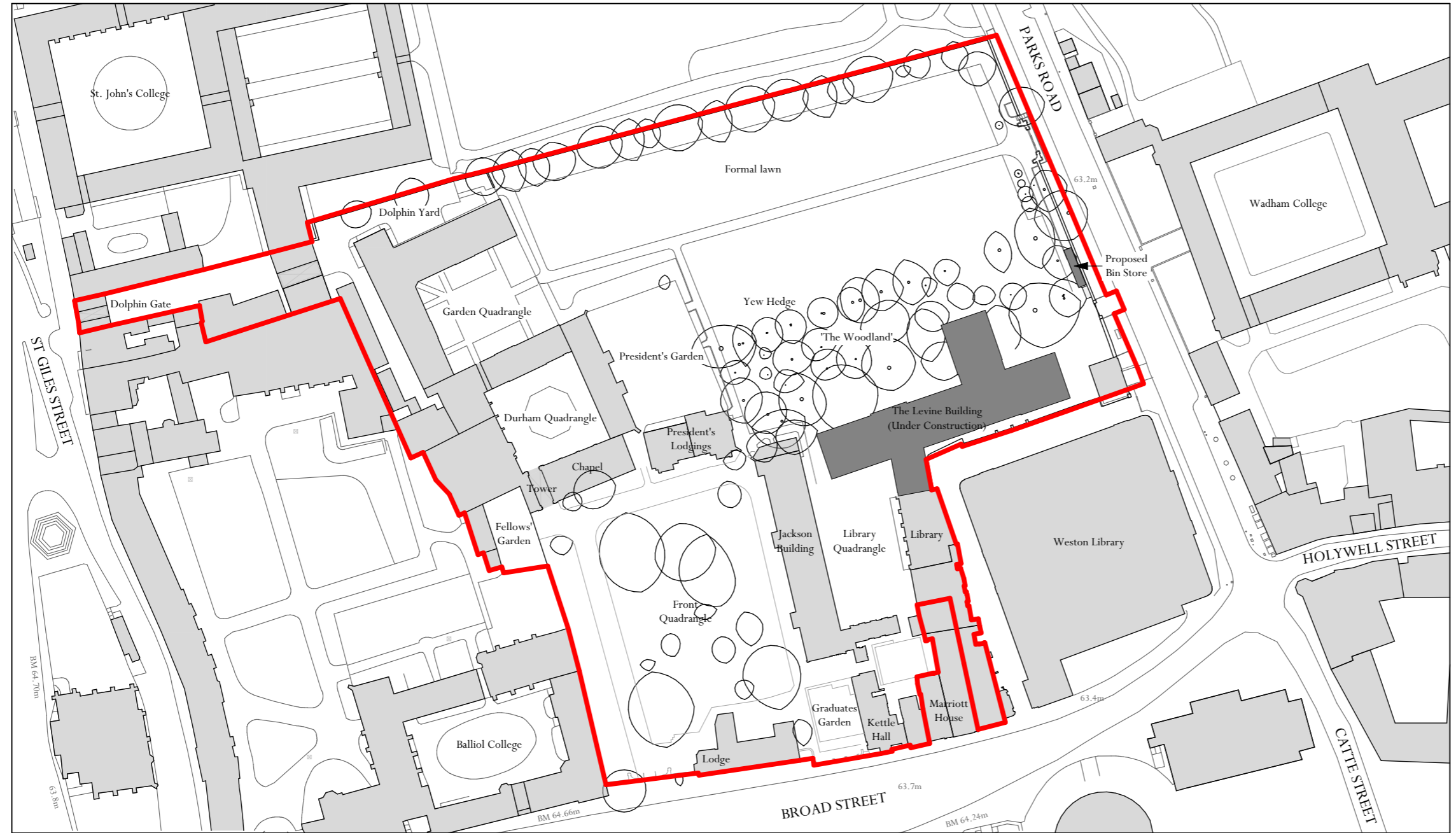
4.2 Post development tree management.

- 4.2.1 Section 8.8.2 of the British Standard 5837:2012 recommends post development aftercare of trees following the completion of development works. It is recommended the following is considered with regard to post development inspection of retained trees:
 - 1. Trees that grow on a site prior to development may, if adversely affected, be in decline over a period of several years before they die. This varies due to age, species, condition prior to development, extent of damage during development, soil conditions and climate. Regular inspections are undertaken post development.
 - 2. Where trees are protected by planning controls, it is recommended that the LPA is informed, and necessary agreements obtained prior to any remedial works.
 - 3. Following completion of a development it is recommended that the arboricultural consultant inspects the trees for signs of intolerance to the change of conditions and the effect of the development. There may be a need for additional tree works to those originally specified.

APPENDIX 1

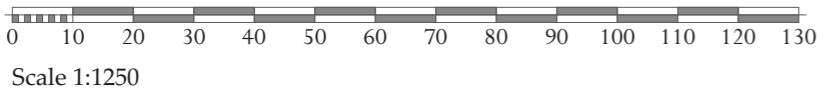
SITE LOCATION PLAN

Adjacent Properties and Boundaries are shown for illustrative purposes only and have not been surveyed unless otherwise stated.
 All areas shown are approximate and should be verified before forming the basis of a decision.
 Do not scale other than for Planning Application purposes.
 All dimensions must be checked by the contractor before commencing work on site.
 No deviation from this drawing will be permitted without the prior written consent of the Architect.
 The copyright of this drawing remains with the Architect and may not be reproduced in any form without prior written consent.
 Ground Floor Slabs, Foundations, Sub-Structures, etc. All work below ground level is shown provisionally. Inspection of ground condition is essential prior to work commencing.
 Reassessment is essential when the ground conditions are apparent, and redesign may be necessary in the light of soil conditions found. The responsibility for establishing the soil and sub-soil conditions rests with the contractor.



/	27.11.20	Planning submission	PHon
Rev	Date	Description	Initials
PROJECT	Trinity College Proposed Bin Store		
TITLE:	Proposed Bin Store - Site Location Plan		
SCALE:	1:1250 @A3		
DATE:	December 2018		
DRAWING No:	5446/72		
DRAWN BY:	AMS		

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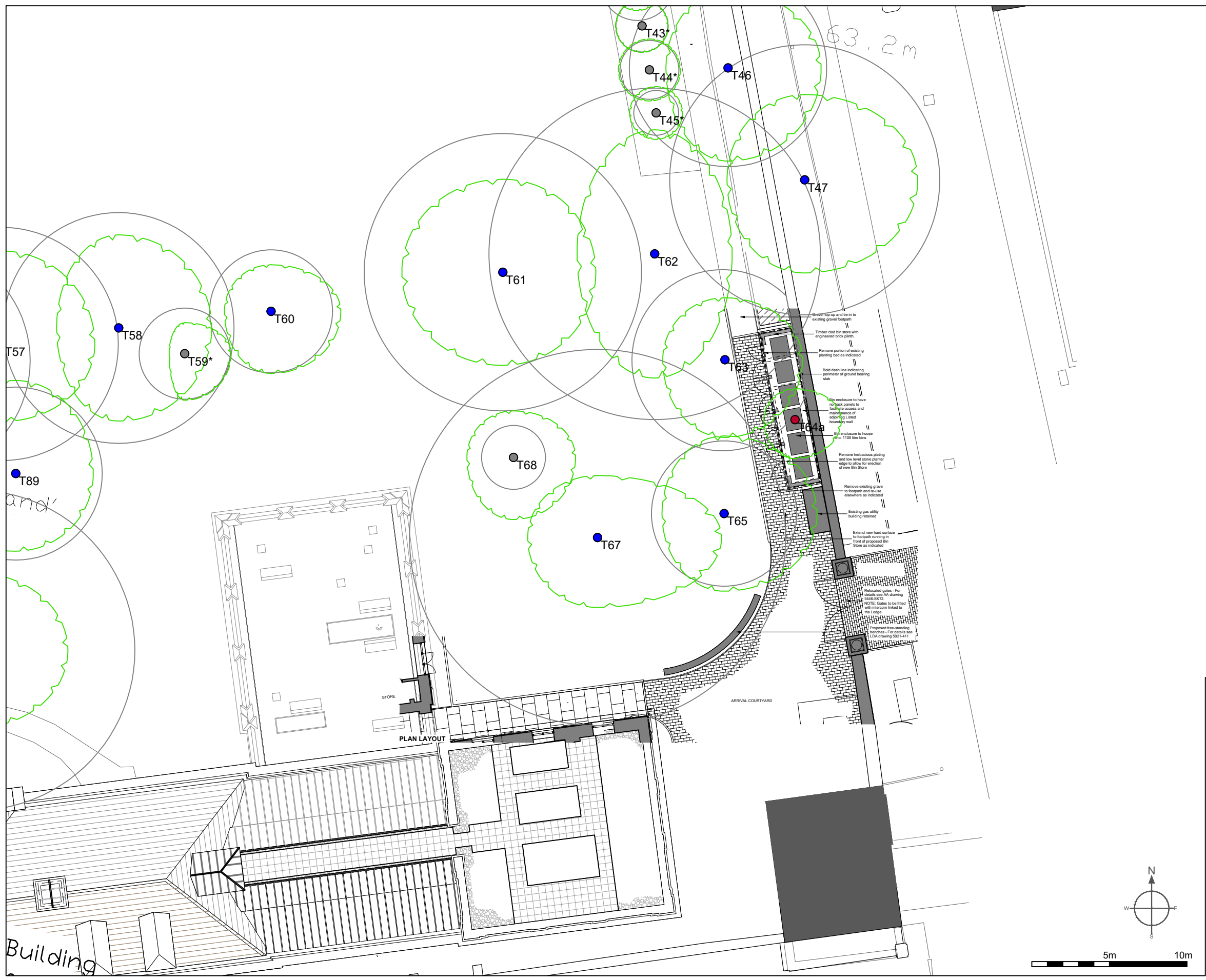


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ARBORICULTURAL IMPACT ASSESSMENT PLAN



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Site: Trinity College: Bin Store 1-250@A3

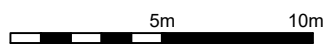
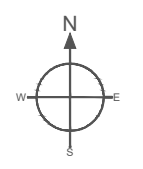
Drawing Title: Arboricultural Impact Assessment Jan 2021

Key:

- Category A (Green circle)
- Category B (Blue circle)
- Category C (Grey circle)
- Category U (Red circle)

Category 13 (Diagram showing Crown Spread, Tree Number, and Root Protection Area)

NOTE: Tree/group numbers marked with an * have approximate locations. The original of this drawing was produced in colour - a monochrome copy should not be relied upon.



Building

EXAMPLE OF A CELLULAR CONFINEMENT SYSTEM



Geosynthetics

Cellweb® TRP

Technical Support Package



What is Cellweb® TRP?

Cellweb® TRP is a cellular confinement system specifically designed for tree root protection. The system creates a stable, load bearing surface for traffic or footfall whilst eliminating damage to roots through compaction and desiccation of the soil.

The Cellweb® TRP system comprises of three specific elements; Cellweb®, Treetex™ pollution control geotextile and an infill of clean angular stone. The system has been designed combining the best possible products to create an unparalleled solution for tree root protection applications.

Cellweb® TRP is a no dig solution that ensures that the load placed upon it is laterally dissipated rather than transferring to the soil and roots below. The use of Treetex™ pollution control geotextile allows for drainage and separation whilst preventing contaminants from reaching the roots.

The walls of the cells are perforated and when combined with an infill of clean angular stone this enables free movement of water and oxygen ensuring that supplies to the tree roots are maintained.

What makes Cellweb® TRP different?

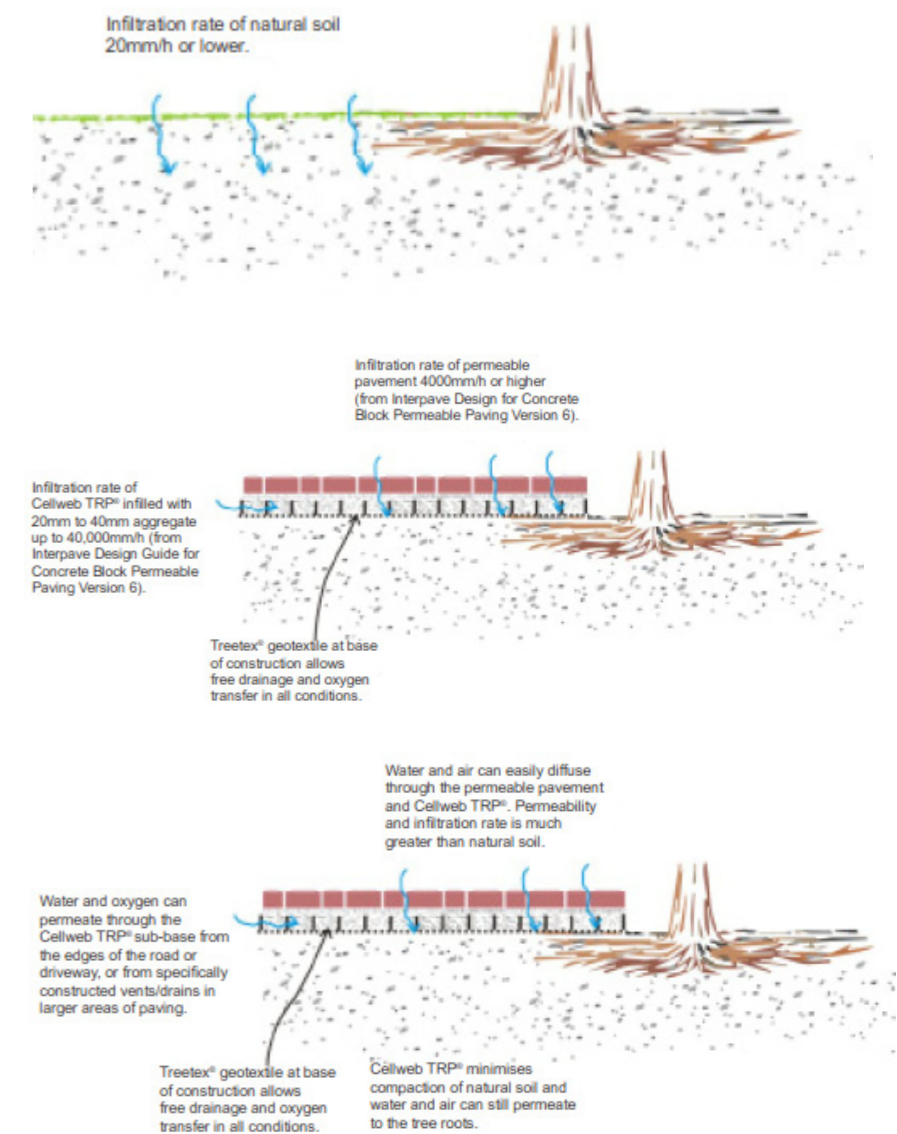
From the drawing board to installation, we are here to help.

We have been supplying the Cellweb® TRP system since 1998 and our technical team have vast experience with tree root protection and the associated legislation.

Delivering complete peace of mind to customers is our number one priority. As part of this customer care package we offer free on site consultations, technical recommendations and on site installation guidance on all projects.

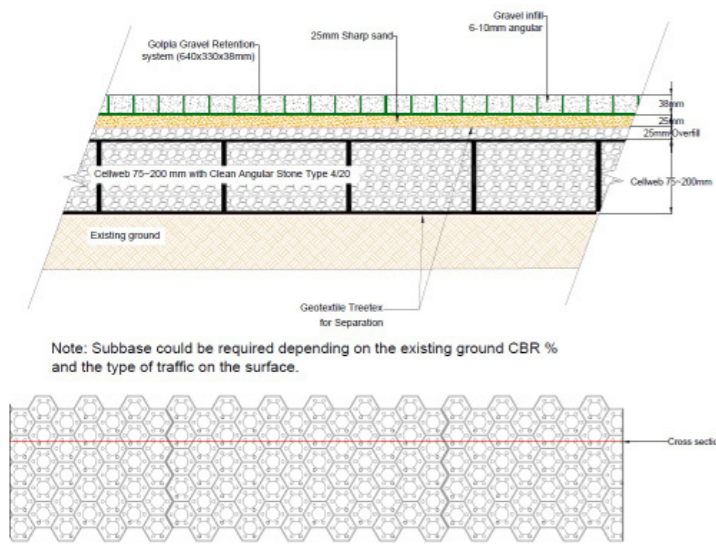
Our in house Engineering Team provide site specific recommendations to ensure the solution used is cost effective and environmentally sound.

For more information on Cellweb® TRP or Geosynthetic Limited please contact our sales office on 01455 617139 or visit www.geosyn.co.uk.

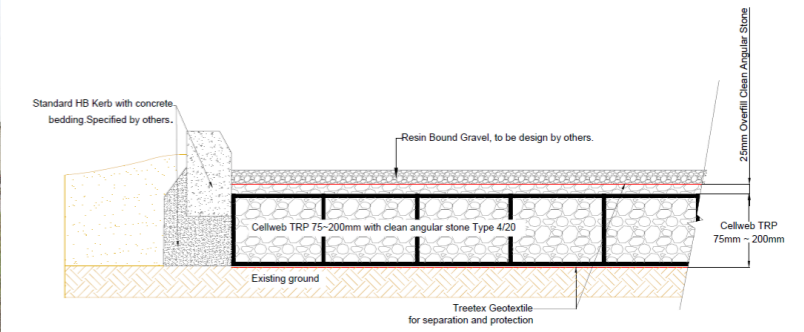


Surfacing Options

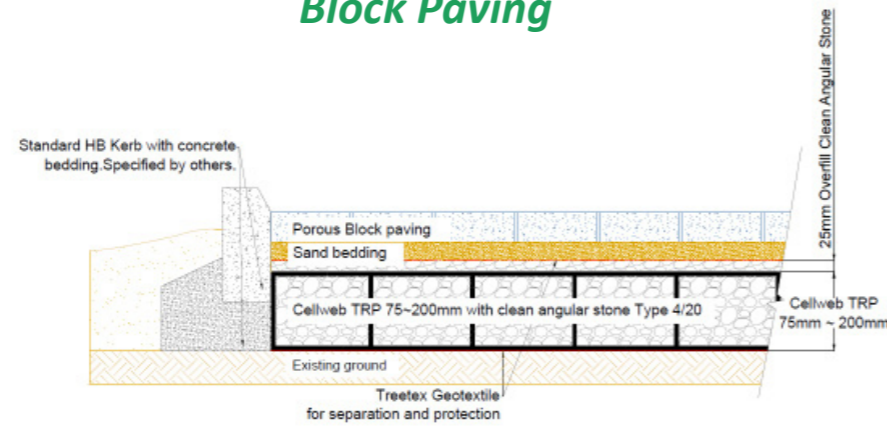
Golpla® Grass & Gravel Pavers



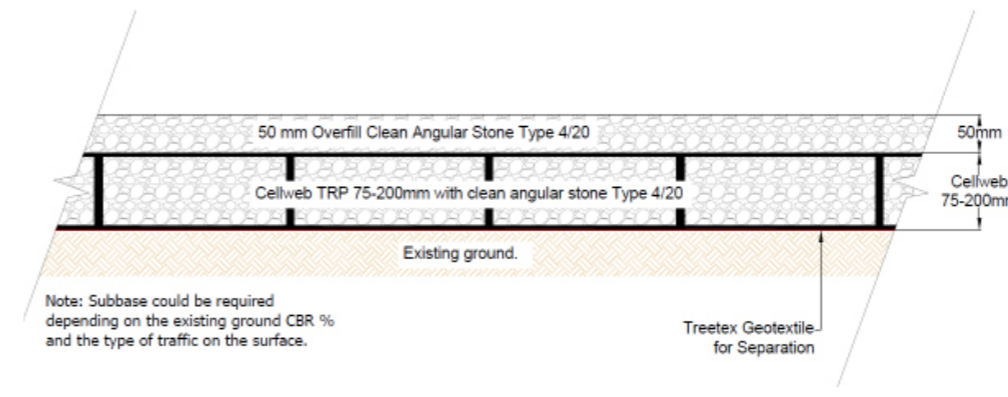
Resin Bound Gravel



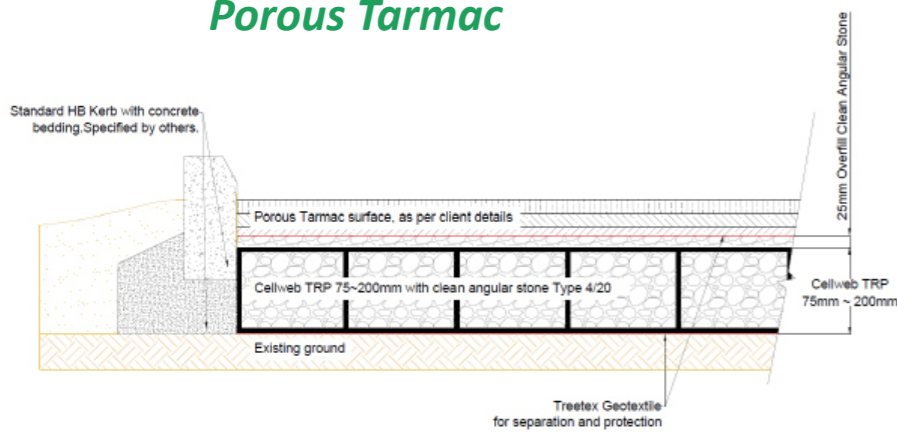
Block Paving



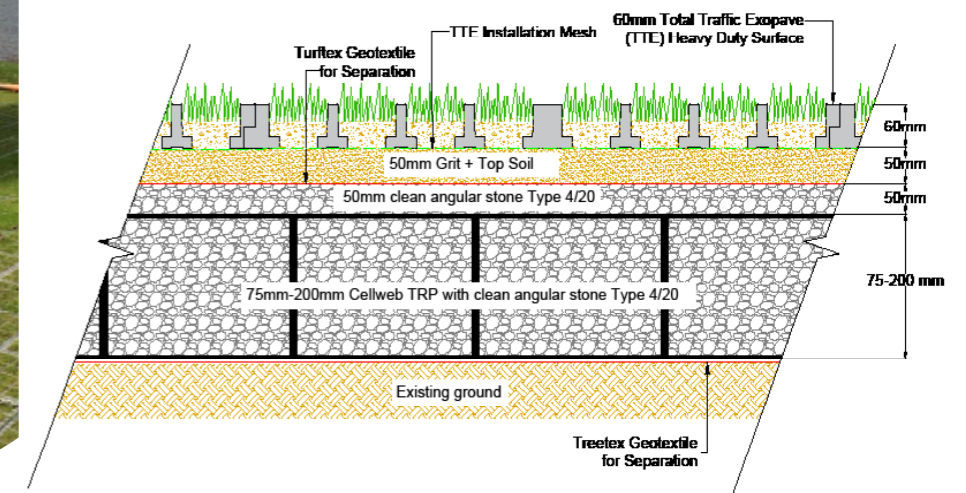
Gravel



Porous Tarmac

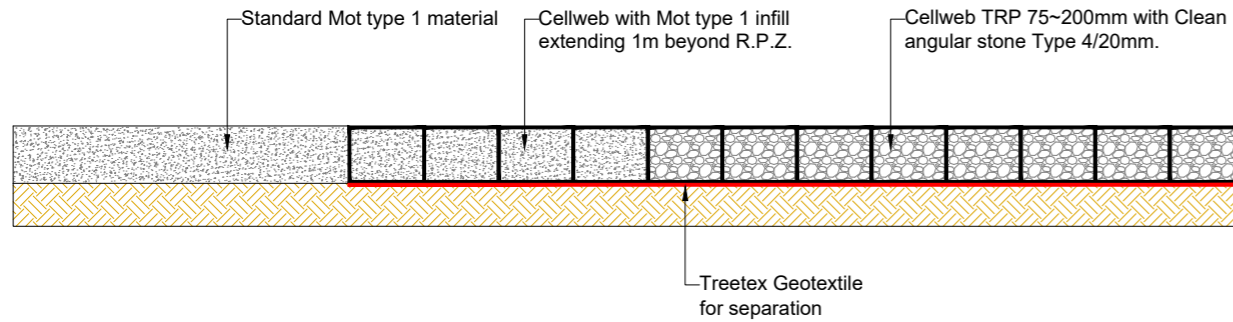


TTE® Heavy Duty Pavers

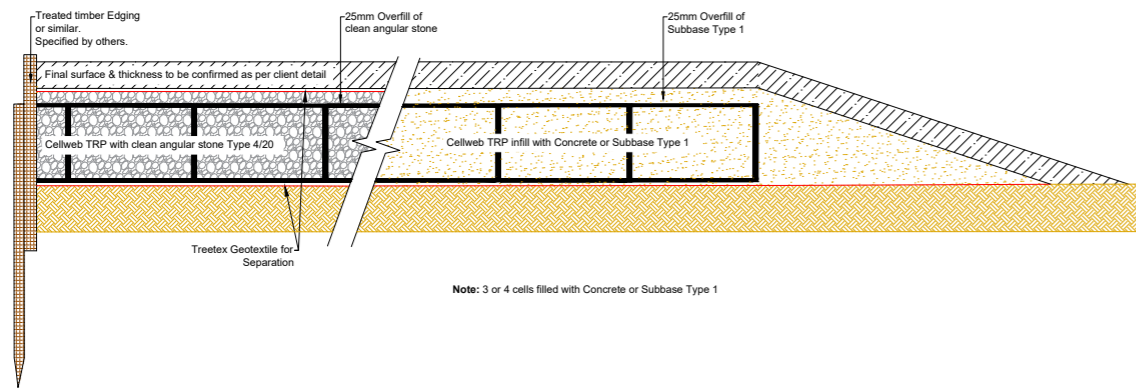


Edging and Transition Details

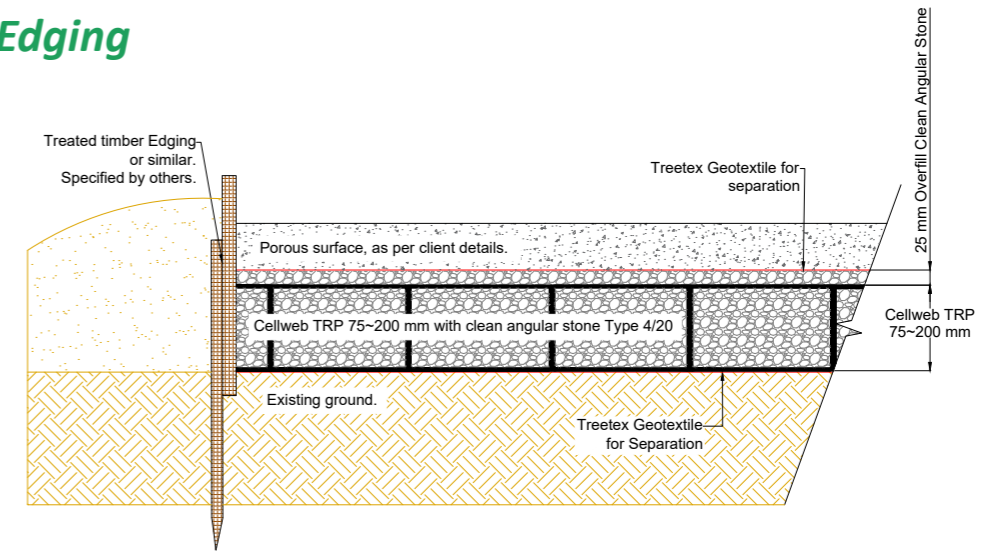
Transition Detail (Flat)



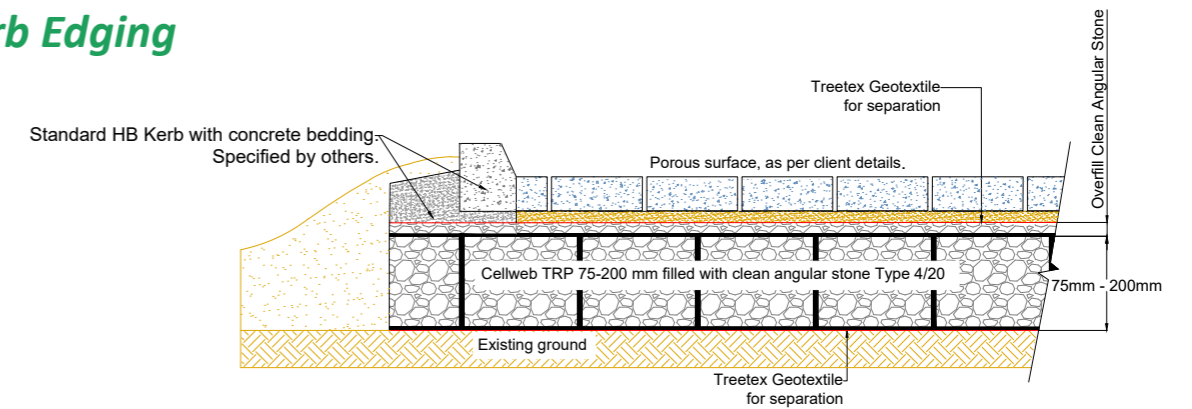
Transition Detail (Ramp)



Timber Edging



Kerb Edging



Adopted Roads and Footpaths



Cellweb® Tree Root protection is the UK's market leading tree root protection system and is widely specified for the construction of new hard surfaces within root protection areas in accordance with BS5837.

Difficulties when specifying the system often occur for the construction of public roads, footpaths and car parks where there is a requirement for the local authority to take responsibility for the maintenance of the new structure and formally adopt it.

The following page shows examples of where new hard surfaces constructed using the Cellweb® TRP system have been adopted by local authorities. This document is designed to provide examples to specifiers of the system and local authorities.

This document is designed to be used in conjunction with technical advice and site specific recommendations which are also available free of charge from Geosynthetics Limited.

APPENDIX 4

QUALIFICATIONS

QUALIFICATIONS

Fiona Bradshaw

MicFor; RFS Dip Arb;F. Arbor.A; Tech Cert (Arbor.A)

I have over 22 years' experience of arboriculture and I am the principal consultant at Sylva Consultancy. I hold the Royal Forestry Society's Professional Diploma in Arboriculture and the Arboricultural Associations Technicians Certificate. I am a Fellow member of the Arboricultural Association and a professional member of the Institute of Chartered Foresters, of which I am also a registered Consultant.

I have the benefit of both a local authority and private practice background and I am frequently instructed to provide advice and assistance relating to trees and the planning process. I am also experienced at compiling expert reports, providing evidence and also appearing as an expert witness at Public Inquires.

I am committed to my continued professional development which is reflected in my regular attendance of seminars and workshops.