

Arboricultural Report: British Standard 5837:2012 Trees in Relation to Design, Demolition and Construction

Stage Three:

Tree Protection Plan

Arboricultural Method Statement

Client: Rob Walker
Site: 1 Shrubby Close
Chesterfield
Postcode: S41 7PL
Date: April 2024
Prepared by: Mike Kiss BSc (Hons), Dip Arb L6 (ABC), Tech Cert (ArborA)
Checked by: David Robinson FdSc (Arb), Tech Cert (ArborA), MArborA

TABLE OF CONTENTS

1.	INTRODUCTION	Page 3
1.1	Terms of Instruction	
1.2	Author of this Report	
1.3	Desk Study	
1.4	Site Visit & Tree Survey	
1.5	Anticipated Arboricultural Impact	
2.	SEQUENCE OF WORKS	Page 6
3.	PRE-COMMENCEMENT SITE MEETING, RESPONSIBILITIES & GENERAL METHODOLOGY	Page 7
3.1	Pre-Commencement Site Meeting	
3.2	Responsibilities	
3.3	Movement of Plant & Materials	
3.4	Supervision	
3.5	Additional Technical Advice and Information	
4.	TREE PROTECTION	Page 8
4.1	Tree Protection Measures: General	
4.2	Tree Protection Plan	
4.3	Construction Exclusion Zone	
4.4	Signage	
4.5	Temporary Ground Protection	
5.	CONSTRUCTION PROCESS	Page 10
5.1	Reinstate Topsoil	
5.2	Install 3D Cellular Confinement System	
5.3	Complete Hard Landscaping	
5.4	Soft Landscaping & Transplant of T2 Whitebeam	
6.	CONTACTS	Page 12
7.	DISCLAIMER	Page 13
8.	QUALIFICATIONS & EXPERIENCE	Page 13
8.1	Qualifications	
8.2	Experience	
8.3	Memberships	
9.	REFERENCES & BIBLIOGRAPHY	Page 14

APPENDICES

1.	TREE SCHEDULE
2.	KEY TO TREE SCHEDULE
3.	TREE LOCATION PLAN - EXISTING
4.	TREE LOCATION PLAN - PROPOSED
5.	TREE PROTECTION PLAN
6.	TREE PROTECTION SPECIFICATION

1. INTRODUCTION

1.1 Terms of Instruction

1.1.1 Thompson Tree Services (UK) Limited have been instructed by Rob Walker to undertake a tree survey and produce an Arboricultural Method Statement (AMS) relating to the proposed landscaping of 1 Shrubbery Close, Chesterfield ('the site'). This method statement has been written in accordance with British Standard BS5837:2012 - Trees in Relation to Design, Demolition and Construction ('BS5837').

1.1.2 This method statement contains the following arboricultural components as requested by Chesterfield Borough Council to validate the planning application:

- i. Tree Schedule to present data from the tree survey
- ii. Tree Protection Plan (TPP) to demonstrate that adequate tree protection shall be used to minimise potentially detrimental impacts on existing trees
- iii. Arboricultural Method Statement (AMS) to set out tree protection specifications, construction methodologies and arboricultural supervision designed to minimise impact on existing trees

1.2 The Author

1.2.1 The author of this report is Mike Kiss BSc (Hons), Dip Arb L6 (ABC), Tech Cert (ArborA), MArborA.

1.2.2 I am an arboricultural consultant at Thompson Tree Services (UK) Limited. I have seventeen years' experience in arboriculture, twelve of which have been in an advisory role, both as an arboricultural consultant in the private sector and as a Local Authority Tree Officer. I hold the Level Six Diploma in Arboriculture, Professional Tree Inspection and Certified Veteran Tree Specialist qualifications. I am a professional member of the Arboricultural Association and uphold their professional ethical standards in line with their code of conduct.

1.3 Desk Study

1.3.1 Several documents pertaining to the trees on and adjacent the site in have been reviewed as part of a desk study. These are available from the online planning search function provided by Chesterfield Borough Council ¹.

¹ [Simple Search \(chesterfield.gov.uk\)](https://www.chesterfield.gov.uk/simple-search)

- 1.3.2 A planning application for development of the site including the erection of 9no. residential dwellings, associated infrastructure and landscaping was granted conditional approval by Chesterfield Borough Council (Planning Reference CHE/21/00324/FUL) in October 2021. An Arboricultural Impact Assessment and Arboricultural Method Statement was submitted with the initial application (Weddle Landscape Design April 2021). This states that the main tarmac roadway will be removed to the depth of the existing sub-base, and a cellular confinement system shall be installed to improve conditions within the rooting area of the adjacent trees. It also states that no topsoil shall be removed from 'protected areas' (Construction Exclusion Zones).
- 1.3.3 A further Arboricultural Method Statement was submitted to discharge Condition 21 of the planning consent, pertaining to boundary treatment in proximity to retained trees (FPCR September 2022). This reiterates that tree protection measures shall be installed in accordance with the approved Tree Protection Plan. Also, that demolition and construction of boundary walls and gate pillars shall take place under the supervision of the Arboricultural Clerk of Works (ACoW) and with the use of hand-held tools only.
- 1.3.4 A recent planning application (INV/CHE/24/00203/FUL) has not yet been validated. Matters to be addressed to resolve the validation are set out in a letter from Chesterfield Borough Council (March 2024). These include the following:
- 2) Please provide a tree protection plan/method statement which outlines how the protected trees will be safeguarded during the development. In this report, please take into account of the matter of the replanting of the protected tree T2.
- 1.3.5 This method statement must be read in context provided by the following documents, which shall also be submitted as part of the application.

Document	Prepared by	Date
Rear Garden Landscaping Plan Document 3	Unknown	Unknown
Land Level Plan Document 8	Unknown	Unknown

1.4 Site Visit & Tree Survey

- 1.4.1 I made an unaccompanied visit of the site on 15th April 2024 and undertook my tree survey on the same day. My survey was not impeded by the weather conditions nor were there any significant restrictions to access the trees and the surrounding areas.
- 1.4.2 My tree survey was undertaken in accordance with BS5837:2012 and Visual Tree Assessment method (Mattheck & Breloer 2006) to stage one.
- 1.4.3 The findings of my tree survey are presented on the Tree Location Plan - Existing (appendix 3). Recent groundworks are evident within the rear garden of the site and adjacent T1 beech, where an area of topsoil has been removed.

1.5 Anticipated Arboricultural Impact

- 1.5.1 A formal Arboricultural Impact Assessment is outside the scope of this Method Statement and has not been requested by the LPA. The purpose of this Arboricultural Method Statement is to minimise to impact of the proposed landscaping on the existing trees.
- 1.5.2 The proposed site layout is presented on the Tree Location Plan - Proposed (appendix 4), and involves installation of raised beds, steps, a ramp, an area of hard surfacing, erection of a shed, and transplanting T2 whitebeam.
- 1.5.3 The proposed extent of hard surfacing over the Root Protection Area (RPA) of T1 beech has been reduced from previous iterations of the plans to 18.5% of the RPA, in line with BS5837. This has been achieved by extending the width of the bed adjacent Newbold Road from 1600mm to 2000mm.
- 1.5.4 Specific arboricultural methodology and technical solutions shall be adopted for works within the RPA. The proposals are for topsoil levels to be largely reinstated, followed by the installation of a 3D cellular confinement system and a permeable resin bound final surfacing designed to minimise impact on conditions within the rooting area of the tree.

2. SEQUENCE OF WORKS

2.1 Unless otherwise agreed with the Local Planning Authority (LPA) the following tasks shall be undertaken in the sequence described (table 1):

Order	Task	Reference Section
1	Pre-Commencement Site Meeting	3.1
2	Install Tree Protection	4
3	Reinstate Topsoil to Previous Levels	5.1
4	Install 3D Cellular Confinement System & Surfacing	5.2
5	Completion of Hard Landscaping	5.3
6	Soft Landscaping & Transplant of T2 Whitebeam	5.4

Table 1: Sequence of works

3. PRE-COMMENCEMENT SITE MEETING, RESPONSIBILITIES & GENERAL METHODOLOGY

3.1 Pre-Commencement Site Meeting

3.1.1 All contractors shall be briefed on the contents of this method statement at a pre-commencement site meeting as part of their site induction.

3.1.2 A copy of this method statement shall be available to all site personnel.

3.2 Responsibilities

3.2.1 It will be the responsibility of the Site Manager to ensure that the Arboricultural Method Statement is adhered to at all times and that further arboricultural advice is sought if required.

3.2.2 All phases of works shall be documented in a report by the Site Manager with accompanying photographs and be fully auditable by the LPA, if necessary.

3.3 Movement of Plant & Materials

3.3.1 Within the RPA of retained trees, no plant shall deviate from areas protected by ground protection, or with existing hard surfacing adequate to bear its weight.

3.3.2 All materials shall be stored within a designated area outside of the RPAs and crown extents of all retained trees.

3.4 Supervision

3.4.1 Banksmen will be present during all movements of plant and materials throughout the site.

3.4.2 If an elevated risk to damage to retained trees is identified at any time, then all works in the vicinity of trees shall stop and an arboriculturist shall be consulted.

3.5 Additional Technical Advice and Information

3.5.1 In addition to the information in this Arboricultural Method Statement, a series of Site Guidance Notes have been produced by Barrell Tree Consultancy which provide generic information pertaining to the protection of trees in relation to development and are available for free download ² and may be of use for site operatives.

² [Technical Guidance » Barrell Tree Consultancy | UK Consultants and Expert Witness Services \(barrelltreecare.co.uk\)](https://www.barrelltreecare.co.uk)

4. TREE PROTECTION

4.1 Tree Protection Measures: General

4.1.1 Tree protection will be installed prior to the commencement of any further on-site works and shall remain in situ until completion of the development, and risk of damage to the retained trees and their respective RPAs has passed. They will only be removed with the consent of the Local Planning Authority to permit completion of the development.

4.2 Tree Protection Plan

4.2.1 The Tree Protection Plan (TPP) (appendix 5) consists of a scale drawing showing retained trees and the location of proposed protection measures.

4.2.2 Tree protection measures consist of:

Tree Protection Measures	Reference Section
Construction Exclusion Zone (CEZ)	4.4
Signage	4.5
Temporary Ground Protection	4.6

4.3 Construction Exclusion Zone (CEZ)

4.3.1 The Construction Exclusion Zone (CEZ) is an area adjacent retained trees which shall not be accessed and remain sacrosanct during the construction phase of the proposed development. No activity is to take place within the CEZ. Existing vegetation and topsoil will be left undisturbed.

4.3.2 Ordinarily, the CEZ would be fenced off with tree protection fencing. However, the existing boundary fence, retaining wall and raised bed will adequately protect the area immediately adjacent the main stem of T1. The existing boundary fence shall not be removed in order to facilitate the proposed development.

4.3.3 The location of the CEZ is shown on the Tree Protection Plan (appendix 5).

4.4 Signage

- 4.4.1 The RPA of T1 which lies within the rear garden shall be clearly marked with spray paint or pegged out, so that necessary access can be maintained.
- 4.4.2 Signage on the entrance to the garden shall inform contractors to take care within the RPAs and crown extents of trees and not to work from areas of ground which are not protected. Example specification of signage is provided in Tree Protection Specification (appendix 6).

4.5 Temporary Ground Protection

- 4.5.1 Where incursion to the RPA of T1 is necessary, temporary ground protection shall be installed until the topsoil has been reinstated and the 3D cellular confinement system can be installed (see sections 5 & 6).
- 4.5.2 Areas which have existing hard surfacing that is adequate to bear the weight of vehicles and plant used in the development (such as Newbold Road and Shrubbery Close) need not be further protected.
- 4.5.3 The location of temporary ground protection is shown on the Tree Protection Plan (appendix 2).
- 4.5.4 Installation of Ground Protection Boards
 - i. For pedestrian or lightweight plant (up to 2 tonne) a ground protection mat (such as 'TuffTrak') shall be used
 - ii. No excavation must be undertaken in order to install this protection level
 - iii. Exposed soil shall be covered with a permeable geotextile membrane (such as 'Treetex') to minimise the impact of accidental spillage
 - iv. Manufacturers specifications and recommendations must be consulted
 - v. Ground protection mats will be moved as necessary to allow the build up of topsoil levels
 - vi. TuffTrak ³ (www.tufftrak-safety.com) supply a range of ground protection measures and offer technical advice.

³ [Tufftrak | Temporary Road Suppliers | Call 01371 700 510 \(all-weatheraccess.co.uk\)](http://www.tufftrak-safety.com)

5. CONSTRUCTION PHASE

5.1 Reinststate Topsoil

- 5.1.1 Existing hardcore within the RPA of T1 beech shall be removed by hand.
- 5.1.2 Imported topsoil required to reinststate removed topsoil to near previous levels shall be compliant with BS3882:2015 - Specification for Topsoil and Requirements for Use.
- 5.1.3 Topsoil shall be added in layers not exceeding 150mm depth and gently firmed. Replacement of topsoil shall not be carried out in wet conditions.
- 5.1.4 Final topsoil levels within the beds adjacent Newbold Road and Shrubbery Close shall match the existing levels. Final topsoil levels where hard surfacing is proposed shall allow room for installation of the cellular confinement system and final use surfacing. This is anticipated to be approximately 120mm below the levels of the beds, depending on the final specifications.
- 5.1.5 Where operative and plant access is required to the RPA, this shall be limited to areas protected by ground protection mats. These shall be moved as necessary to allow the build up of topsoil levels.

5.2 Install 3D Cellular Confinement System

- 5.2.1 Within the RPA of T1 beech a 3D cellular confinement system (such as 'Cellweb') shall be installed on top of the reinstated topsoil to form a sub-base for the resin bound surface.
- 5.2.2 In order to ensure suitability for the site, conditions and anticipated loading, the 3D cellular confinement system shall be designed and specified by a structural engineer. Example specifications are provided in Tree Protection Specification (appendix 6).
- 5.2.3 Installation of 3D Cellular Confinement System
 - i. Exposed soil shall be covered with a permeable geotextile membrane (such as 'Treetex') to minimise the impact of accidental spillage
 - ii. A clean angular stone infill of 4-20mm shall be applied to the cellular confinement system, which shall be held in place with fixing pins
 - iii. Final use surfacing will be a permeable resin bound final surfacing
 - iv. Geosynthetics ⁴ supply Cellweb and offer extensive technical support and downloads of method statements and contractors guides.

⁴ [Geosynthetics - Home](#)

5.3 Complete Hard Landscaping

- 5.3.1 Once the 3D cellular confinement system is in place, the remaining hard landscaping shall be completed. This shall include installation of a ramp, steps, raised beds and erection of a shed.
- 5.3.2 A precautionary approach should be adopted to minimise impact on retained trees. Any further excavation either within or outside the RPA of retained trees necessary to install the steps or the ramp should be undertaken with handheld tools, and preferably compressed air soil displacement ('air spade'). If roots under 25mm diameter are found during excavation, they will be cut back with a sharp pruning knife or secateurs to minimise exposed surface. If any roots over 25mm diameter are found, then advice shall be sought from an arboriculturist.
- 5.3.3 Where operative and plant access is required to the RPA, this shall be limited to areas protected by the cellular confinement system (lower terrace), or ground protection mats (upper terrace).

5.4 Soft Landscaping & Transplant of T2 Whitebeam

- 5.4.1 Transplanting of T2 whitebeam shall be carried out in line with British Standard 8545:2014 'Trees: from nursery to independence in the landscape – Recommendations' by an Arboricultural Association Approved Contractor. A list of these is available from the Arboricultural Association ⁵.
- 5.4.2 T2 whitebeam shall be transplanted during the dormant season (November to February) and avoiding periods when the ground conditions are not favourable (waterlogged, dry or frozen). The tree shall be moved to the location shown on the Tree Location Plan - Proposed (appendix 4).
- 5.4.3 The stump of the previously removed tree shall be stump ground to a suitable depth, by an Arboricultural Association Approved Contractor, if required.
- 5.4.4 Post-planting aftercare shall be scheduled for a period of five years after planting to promote the establishment of T2 whitebeam. This shall include regular watering, weeding, and application of woodchip mulch as required.
- 5.4.5 All further soft landscaping operations shall be carried out in line with British Standard 4428:1989 Code of Practice for General Landscape Operations.
- 5.4.6 Where appropriate, woodchip mulch shall be applied to areas of the RPAs which are not hard surfaced or turfed to improve conditions within the rooting areas and suppress weed growth. This shall be good quality partially decomposed woodchip mulch from a known safe source and shall be applied to a depth of 50mm to 100mm, avoiding contact with the bases of main stems, root flare and exposed surface roots.

⁵ [Arboricultural Association - Home \(trees.org.uk\)](https://www.trees.org.uk)

6. CONTACTS

6.1 Landowner

Name	Contact

6.2 Site Manager

Name	Contact

6.3 Construction Contractors

Name	Contact

6.4 Arboricultural Contractors

Name	Contact

6.5 Arboricultural Consultants

Name	Contact

7. DISCLAIMER

Reports remain the copyright of Thompson Tree Services (UK) Ltd and any transfer to a third party must be with our express consent.



18th April 2024

Mike Kiss

DATE

8. QUALIFICATIONS & EXPERIENCE

8.1 Qualifications

- 2023 Certified Veteran Tree Specialist - Consulting Level (VETCert)
- 2021 Level 6 Diploma in Arboriculture (ABC)
- 2018 Quantified Tree Risk Assessment: Registered User (QTRA)
- 2010 Professional Tree Inspection (Lantra)
- 2009 Technicians Certificate in Arboriculture (Arboricultural Association)
- 2007 Tree Surgery for Craftsmen (Merrist Wood College)
- 2001 BSc (Hons) Geography (The University of Sheffield)

8.2 Experience

I have seventeen years' experience in arboriculture, having started 'on the tools' as a climber, team leader and supervisor for several Arboricultural Association Approved Contractors. I have also spent twelve years in an advisory role, both as an arboricultural consultant in the private sector and as a Local Authority Tree Officer (Bristol City Council 2011 – 2012).

My current role at Thompson Tree Services (UK) Limited involves undertaking tree surveys and preparing reports relating to tree condition, tree risk assessment (QTRA), trees and development (BS5837), mortgage reports, ancient and veteran trees, and tree planting schemes.

8.3 Memberships

Arboricultural Association: Professional Member (MArborA) (PR7385)

9. BIBLIOGRAPHY & REFERENCES

Arboricultural Association: www.trees.org.uk

Barrell Tree Care: [Technical Guidance » Barrell Tree Consultancy | UK Consultants and Expert Witness Services \(barrelltreecare.co.uk\)](#)

Geosynthetics: www.geosyn.co.uk

British Standard 3998:2010 Tree Work – Recommendations. BSI

British Standard 5837:2012 Trees in Relation to Design, Demolition and Construction: A Recommendation. BSI

British Standard 8545:2014 Trees: from nursery to independence in the landscape – Recommendations. BSI

British Standard 4428:1989 Code of Practice for General Landscape Operations (excluding hard surfaces). BSI

British Standard 3882:2015 Specification for Topsoil and Requirements for Use. BSI

Department of the Environment, Transport and the Regions (DETR) (2000) Tree Preservation Orders – a guide to the law and good practice.

International Society of Arboriculture (2020) Glossary of Arboricultural Terms. ISA, Atlanta

Appendix 1

Tree No.	Common Name	Botanical Name	Height (m)	Stem Diameter (mm)	Crown Spread (m)				Crown Height (m)	Age Class	Phys. Cond.	Struct. Cond.	Comments	Proposed Tree Works	Estimated Remaining Contrib.	Ret. Cat.	RPA (m ²)	RPA Radius (m)
					N	E	S	W										
T1	Copper Beech	Fagus sylvatica 'Purpurea'	17	550	6	6	4.5	5	5	Mature	Fair	Fair	Tree located immediately to the south of junction between Newbold Road and Shrubbery Close. Recently constructed retaining wall within 300mm to the northeast (800mm drop to pavement and road) and border within 1m to the northwest (400mm drop to pavement and drive). Apparent recent excavations within 1m of main stem in garden to depth of upto approximately 600mm. Exposed roots upto 20mm. Majority of spoil removed.	Replace topsoil to previous levels Install cellular confinement system Methodology detailed in Arboricultural Method Statement	>40 yrs	B	136.8	6.60
T2	Swedish Whitebeam	Sorbus intermedia	3	40	0.5	0.5	0.5	0.5	1.5	Newly Planted	Good	Good	Recently planted tree located within border adjacent Newbold Road. I understand this is a replacement for a removed TPO tree which should have been planted further from the retaining wall and streetlight.	Transplant to new location Methodology detailed in Arboricultural Method Statement	20 to 40 yrs	C	0.7	0.48

Appendix 2

Sequential Reference Number: As recorded on the tree schedule and tree survey plans	Physiological & Structural Condition:
Species: Common name and botanical name	
Height: Measured in metres above ground level	
Stem Diameter: Measured in millimetres at 1.5m (or in accordance with BS5837 Annex C)	
Crown Spread: Radius from the main stem, measured in metres at the four cardinal points	
Crown Height: Height of lowest branch / lowest part of crown	<ul style="list-style-type: none"> - Good: Containing no apparent significant defects or pathogens - Fair: Containing defects or pathogens that have potential to have an impact on the function of the tree, or component of the tree - Poor: Containing defects or pathogens that significantly compromise structural integrity or cause dysfunction to the tree, or component of the tree - Moribund / Dead: Tree with no significant live growth
Age Class:	Estimated Remaining Contribution:
<ul style="list-style-type: none"> - Newly Planted: A tree which is not yet fully established in the landscape - Young: A young tree which is established in the landscape - Semi Mature: A tree in the first third of its typical life expectancy - Early Mature: A tree in the second third of its typical life expectancy - Mature: A tree in the final third of its typical life expectancy - Late Mature: A tree exceeding typical life expectancy 	<ul style="list-style-type: none"> - <10 years; >10 years; >20 years; >40 years
	Retention Category: As summarised in table 2 (below)
	<ul style="list-style-type: none"> - Category A: Light green - Category B: Mid blue - Category C: Grey - Category U: Dark red

Category	1 Mainly Arboricultural Qualities	2 Mainly Landscape Qualities	3 Mainly Cultural Values (inc. Conservation)
Category A: High quality trees (> 40 years remaining contribution)	Particularly good examples of species or form essential components of formal arboricultural features	Trees, groups or woodlands of particular visual importance as a landscape feature	Trees, groups or woodlands of significant conservation, historical or cultural values
Category B: Moderate quality trees (> 20 years)	As category A but downgraded because of impaired condition; or trees lacking characteristics of category A trees	Trees in groups or woodlands which attract a higher collective rating than they might as individuals	Trees with material conservation or other cultural value
Category C: Low quality trees (> 10 years)	Unremarkable trees of limited merit or in such impaired condition that they don't qualify in higher categories	Trees, groups or woodlands which don't qualify in higher categories	Trees with no material conservation or other cultural value
Category U: Poor quality trees (<10 years)	Trees that have serious, irremediable, structural defects. Trees that are dead or in significant, immediate and irreversible overall decline. Trees infected with pathogens of significance to other trees nearby, or low-quality trees suppressing adjacent trees of better quality		

Appendix 3



Thompson Tree Services
Ashleigh House
Wirksworth
DE4 4FR
01629 824079

1 Shrubbery Close, Chesterfield BS5837 Tree Location Plan - Existing

SCALE : 1 : 250 @ A4 DATE : 18/04/2024

Aerial Photography and LIDAR data
purchased from Bluesky Mapping

Map data shown may contain Ordnance Survey® products supplied by
Pear Technology Services Ltd. Email: info@peartechology.co.uk
© Crown Copyright and database rights from date shown above
Ordnance Survey® licence number 100023148

Root Protection Area (modified)



Tree Retention Categories



Category 'A'

Category 'B'

Category 'C'

Category 'U'

0 15m

Legend

Existing Hardcore (approx.)

Existing Excavations (approx.)



Appendix 4



Thompson Tree Services
Ashleigh House
Wirksworth
DE4 4FR
01629 824079

1 Shrubby Close, Chesterfield BS5837 Tree Location Plan - Proposed

SCALE : 1 : 250 @ A4 DATE : 18/04/2024

Aerial Photography and LIDAR data
purchased from Bluesky Mapping

Map data shown may contain Ordnance Survey® products supplied by
Pear Technology Services Ltd. Email: info@peartechology.co.uk
© Crown Copyright and database rights from date shown above
Ordnance Survey® licence number 100023148

Root Protection Area (modified)



Tree Retention Categories



Category 'A' Category 'B' Category 'C' Category 'U'



Legend

- Proposed Resin Bound Surfacing (approx.)
- Proposed Raised Beds (approx.)
- Proposed Steps (approx.)
- Proposed Shed (approx.)

Appendix 5

Appendix 6



Figure 1: Example signage. Reproduced from BS5837:2005 Courtesy of BSI.

Kerb Edging

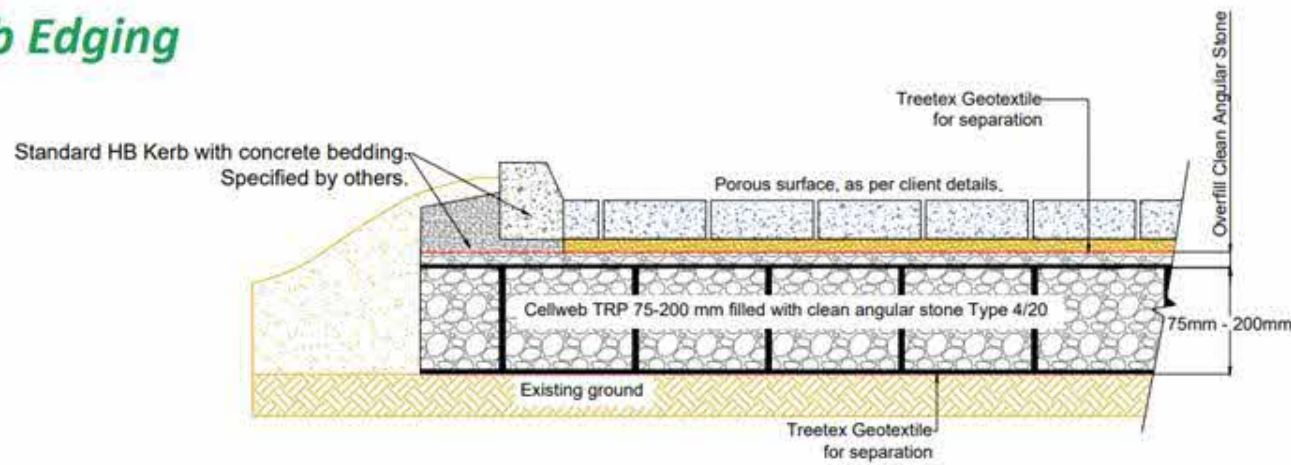


Figure 2: Example cellular confinement specification. Reproduced from Cellweb TRP Technical Support Package. Courtesy of Geosynthetics.

Transition Detail (Ramp)

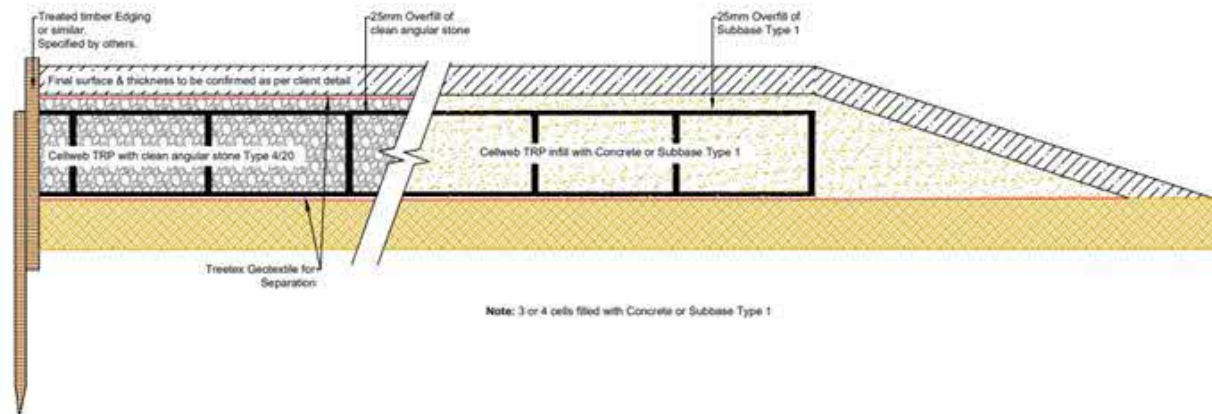


Figure 3: Example cellular confinement specification. Reproduced from Cellweb TRP Technical Support Package. Courtesy of Geosynthetics.