ARBORICULTURAL IMPACT ASSESSMENT (AIA)

JUNE 2025

Stairfoot Quarry
Sandy Gate Lane
Ardsley
Barnsley
S71 5AW

URBAN GREEN

QUALITY MANAGEMENT

Project No.:	UG1773
Project:	Stairfoot Quarry, Barnsley
Location:	Stairfoot Quarry, Sandy Gate Lane, Ardsley, Barnsley, S71 5AW
Title:	Arboricultural Impact Assessment
Document Type:	BS 5837: 2012
Date:	26/06/2025
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Revision Status:				
Rev:	**Date:**	**Issue/Purpose/ Comment:**	**Prepared:**	**Checked:**

CONTENTS

1. Executive Summary

1.1.1. Urban Green has been instructed by Green Earth Developments Ltd. to carry out an Arboricultural Survey to British Standard 5837: 2012 guidelines at Stairfoot Quarry, Sandy Gate Lane, Ardsley, Barnsley, S71 5AW and produce our findings in a report.

1.1.2. It is proposed to develop the site by infilling the quarry. Full details of the proposed site layout can be seen on the plans included in Appendix 4.

1.1.3. Barnsley Metropolitan Borough Council Tree Preservation Orders (Reference Number: 7, Tree Reference Numbers: W1 and T1) are currently in effect at the site. However, the site does not lie within a Conservation Area.

1.1.4. The proposed development necessitates the removal of a section of one 'Moderate Quality' woodland and a section of one 'Low Quality' tree group within the site boundary. It is recommended that this tree loss is mitigated against through onsite replacement tree planting and the production of a robust soft landscaping scheme.

1.1.5. Urban Green have also carried out a Preliminary Ecological Appraisal (PEA) of the site (UG_1773_ECO_PEA_01). This report should be read and adhered to in conjunction with the PEA report.

1.1.6. Tree protection fencing will need to be installed at the alignment shown on the Tree Protection Plan in Appendix 4 before any construction activity takes place.

1.1.7. Information regarding the layout of new utilities and drainage and final site levels should be submitted to the Arboricultural Consultant so that the impact of these on the retained trees can be assessed.

1.1.8. An Arboricultural Method Statement (AMS) will not be required to facilitate the proposed development, as there are no works proposed within the RPAs of retained trees.

2. Introduction

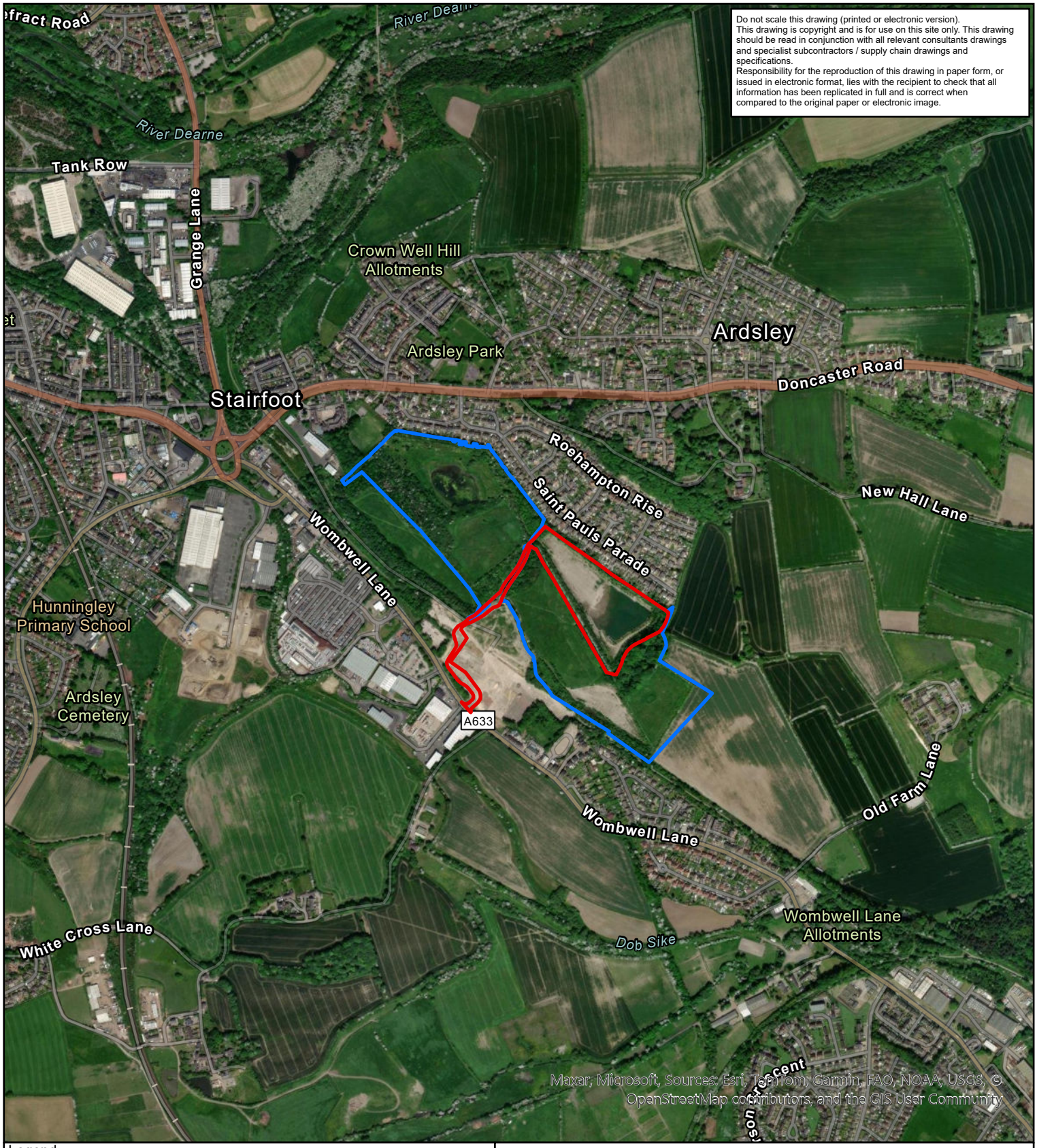
2.1. Instructions and References

2.1.1. Urban Green have been instructed by Green Earth Developments Ltd. to carry out an Arboricultural Impact Assessment (AIA) in accordance with BS 5837: 2012 '*Trees in relation to design, demolition and construction – Recommendations'* at Stairfoot Quarry, Sandy Gate Lane, Ardsley, Barnsley, S71 5AW and produce our findings in a report to be submitted with a detailed planning application.

2.1.2. All trees, regardless of their statutory status, are a material consideration in a planning application. BS 5837: 2012 recognises the potential conflict between trees and development. The standard sets out to assist those concerned with trees in relation to construction and aid with decision making. This is achieved by providing impartial and balanced information on trees and their potential impacts.

2.1.3. Due to the size and nature of the site, it was decided that the survey methodology would include broadly grouping trees that share very similar characteristics. This method is in line with point 4.4.2.3 of BS 5837: 2012 that states '*Trees forming groups…should be identified and considered as groups where the arboriculturist determines that this is appropriate… It may be appropriate to assess the quality and value of trees as a whole, rather than individuals*.'

2.1.4. The site is located in the area shown in Figure 1. The Ordnance Survey (OS) Grid Reference is SE 37878 05323.



Legend:

- Red Line Boundary
- Ownership Extent

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Client: **Green Earth Developments Ltd**	Issue: **01**	Figure: **01**
Project: **Stairfoot Quarry**	Scale @ A4 **1:12,000**	
Title: **Site Context**	Approved by: **CL**	Checked by: **AH**
Drawing Ref: **UG_1773_SITE_CONTEXT**	Author: **CL**	Date: **30/06/2025**

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2.2. Scope

2.2.1. The AIA considers any potential impacts on existing trees including the effect of any tree loss required to implement the design and recommendation for the establishment of new trees.

2.3. Documents Provided

2.3.1. A scaled topographical plan has been provided with tree positions already plotted (Malcolm Hughes Chartered Land Surveyors Topographical Survey Drawing No 61739_Topo). Any extra trees found on site that were not included on the original plan have been plotted according to measurements taken on site and/or using aerial photography.

2.3.2. Tree locations which have been estimated are illustrated on the plans included in Appendix 4, by their identifying number with a "#" suffix. The exact locations of these trees must be verified, and any discrepancies discussed with the Arboricultural Consultant before starting works on site.

2.3.3. A plan outlining the development proposals has been overlaid with the Tree Constraints Plan to assess the potential impacts.

2.4. Limitations

2.4.1. This report is based upon a visual inspection carried out from ground level only. The consultant shall not be responsible for events that happen after the date of the report due to factors that were not apparent at the time, and the acceptance of this report constitutes an agreement with the guidelines and the terms listed in this report.

2.4.2. The consultant accepts no liability in respect of the trees unless the recommendations of this report are carried out under their supervision.

2.4.3. Assessing the potential influence of trees upon load bearing soils, beneath existing and proposed structures resulting from water abstraction by trees or rehydration of shrinkable soils was not included in the contract brief and is therefore not considered in the report. The consultant cannot be held responsible for damage arising from such action.

2.4.4. Trees are living organisms whose health, condition and structure can change over time. The contents of this report are valid for a period of one year from the date of the report.

2.4.5. Potentially hazardous trees are highlighted, and appropriate recommendations are made to reduce the associated risks to an acceptable level.

2.5. The Site

2.5.1. The site is a former quarry, located within a peri-urban area of Ardsley, Barnsley. In addition to the quarried areas, the site features dense areas of woodland; large areas of open grassland; two large bodies of water; and a network of public footpaths. The site is bounded by residential properties to the north; agricultural land to the east; and a blend of residential and commercial properties to the west.

2.6. Soil Profile

2.6.1. Reference to the Cranfield University Soil and Agrifood Institute's Soilscapes Viewer suggests the underlying soil profile at the site is characterised as a seasonally wet, slowly permeable, acidic loamy and clayey soil, with impeded drainage and reduced fertility. This soil type is typical of grassland, and some arable and forested environments.

3. Legislation

3.1. Tree Protection Status

3.1.1. A Tree Preservation Order (TPO) is an order made by a Local Authority to protect specific trees, groups of trees or woodlands in the interests of amenity. A TPO prohibits the cutting down, topping, lopping, uprooting and wilful damage or destruction of trees without the Local Authority's written consent.

3.1.2. Access to Barnsley Metropolitan Borough Council's online mapping software on 15/01/2025 indicated that two TPOs are currently in effect to the northeast of the site, external to the operational site boundary: Woodland TPO Reference Number 7, Tree Reference Number W1; and Individual Tree TPO Reference Number 7, Tree Reference Number T1. The site does not lie within a Conservation Area.

3.1.3. It is recommended that the Local Authority is consulted before any tree works are undertaken, as new TPOs may have been created since the time of enquiry, and heavy fines exist for unauthorised works to protected trees.

3.1.4. All works to trees covered by a TPO require permission from the Local Authority, including any pruning. However, this does not include trees that are dead or have become dangerous. The removal of dead branches is also excluded from a TPO. Although the above exceptions exist, it is advisable to give the Local Authority five days' notice in writing of any intended removal. Permission is not needed where tree work is required to implement an approved planning application.

3.1.5. It is an offence to remove more than five cubic metres of timber in any one calendar quarter without having first obtained a felling licence from the Forestry Commission. It must be noted, however, that this excludes sites where planning permission has already been granted.

3.2. Ecological Considerations

3.2.1. Prior to the commencement of any tree works, the trees should be assessed for the presence of protected species, many of which are protected under the *Wildlife and Countryside Act 1981* (as amended) and/or the *Conservation of Habitats and Species Regulations 2017* (as amended).

3.2.2. Where there is evidence that roosting bats, nesting birds, or other protected species are present, works in these areas should pause and the advice of a suitably qualified ecologist should be sought about how best to proceed.

3.2.3. If tree works are carried out during the bird nesting season (March to September, inclusive), trees should be inspected by a qualified ecologist to confirm likely absence, no more than forty-eight hours prior to the commencement of works.

3.2.4. Urban Green has also been appointed to complete a Preliminary Ecological Appraisal (PEA) of the site (UG_1773_ECO_PEA_01), which should be read and adhered to should any tree work be required. The objectives of the PEA are to identify habitats on site and determine the suitability for any 'protected and/or notable' species, including proximate designated sites, in the context of the development proposals. This report should be read and adhered to in conjunction with the PEA report.

4. Arboricultural Impact Assessment (AIA)

4.1. Summary of the Development

4.1.1. It is proposed to develop the site by infilling the quarry. Full details of the proposed site layout can be seen on the plans included in Appendix 4.

4.2. Tree Constraints

4.2.1. BS 5837: 2012 recognises that conflicting requirements of the planning system for development means that trees are only one factor which need to be taken into consideration. Although there may be certain specimens that can pose significant constraints to development due to their importance, it is essential that inappropriate tree retention is avoided.

4.2.2. Trees can be adversely affected on development sites if their protection is not factored into the wider project management of onsite operations. The tree survey plan has been transposed over plans detailing current proposals to assess the impact on surveyed trees.

4.2.3. It is essential that roots are protected from construction works including physical damage from excavation and changes in soil structure from compaction and changes in ground levels.

4.3. Root Protection Areas (RPAs) Explained

4.3.1. The Root Protection Area (RPA) is an area of ground around the base of a tree indicated on the plans included in Appendix 4 as an ochre yellow circle centred around the stem which is calculated in relation to the stem diameter.

4.3.2. Most tree roots grow within the upper 600mm of the soil profile where most nutrients are available as the result of the decomposition of organic matter close to the surface. Rooting conditions become less favourable at depth as the soil density increases, creating anaerobic conditions.

4.3.3. BS 5837: 2012 states that the default position for proposed structures should always be outside the RPA. It is recognised that this may not always be possible, yet tree retention would be desirable. In this instance, technical solutions might be available that prevent damage to the retained tree(s).

4.4. Surveyed Trees

4.4.1. The survey assessed two individual trees, eleven tree groups, four hedgerows, and seven woodlands, the quality and value of which are summarised below. Full details of the surveyed trees, tree groups, hedgerows, and woodlands can be viewed in the Tree Data Schedule in Appendix 1.

4.4.2. One woodland was assessed as BS 5837: 2012 'High Quality' Retention Category 'A'; one individual tree, six tree groups, one hedgerow and five woodlands were assessed as BS 5837: 2012 'Moderate Quality' Retention Category 'B'; and one individual tree, five tree groups, three hedgerows and one woodland were assessed as BS 5837: 2012 'Low Quality' Retention Category 'C'.

4.4.3. All the surveyed trees, tree groups, hedgerows and woodlands are within the site ownership boundary; however, only G6 and portions of W15 and G16 are within the provided development boundary.

4.4.4. The tree cover comprises a mixture of planted and self-set woodland, with a broad range of predominantly native or naturalised species present.

4.4.5. Offsite woodland W4 is of particular visual importance, containing many mature trees, and displaying evidence of being well-used by the public. Tree T5 exhibits many veteran characteristics and is of visual and Arboricultural importance. Trees internal to the operational site boundary are of secondary importance in visual terms.

4.5. Impacts of Development

4.5.1. The proposed development would necessitate the removal of a section of one section of woodland (W15) assessed as BS 5837: 2012 'Moderate Quality' Retention Category 'B'; and one section of a tree group (G16) assessed as BS 5837: 2012 'Low Quality' Retention Category 'C', as detailed in the Tree Removal Plan and Tree Works Schedule in Appendix 4.

4.5.2. The removal of these trees would have no material impact on the wider character and appearance of the site or the locale, with restricted views from nearby external public vantage points. It is recommended the removal of these trees be mitigated against through onsite replacement tree planting and the production of a robust soft landscaping scheme.

4.5.3. The remaining trees, tree groups, hedgerows, and woodlands are to be retained and can be protected throughout the proposed development in accordance with the standards and practices detailed in BS 5837: 2012 and in this report.

4.5.4. Tree protective fencing will need to be installed at the alignment indicated on the Tree Protection Plan in Appendix 4 prior to the commencement of the proposed development. A specification for protective fencing can be viewed in the Tree Protection Index in Appendix 4 and in section 4.7. of this report.

4.6. Tree Surgery Works

4.6.1. Tree works that are recommended within the Tree Works Schedule in Appendix 4 are works required to facilitate development and include details or remedial works. Tree works stated in the Tree Data Schedule are of a general maintenance nature and can be carried out at any time as per recommendations.

4.6.2. Tree works required to facilitate the development will be carried out prior to the commencement of any onsite operations. This should allow sufficient space for approved construction to be carried out.

4.6.3. Any unforeseen tree works that become apparent during the construction process will require written consent from the Local Authority Tree Officer.

4.6.4. All specified tree work is to be carried out in accordance with the standards and practices detailed in BS 3998: 2010 '*Tree work – Recommendations*'.

4.7. Protective Fencing

4.7.1. Temporary protective fencing will need to be installed at the alignment indicated on the Tree Protection Plan in, prior to the commencement of any proposed development on site including the delivery of materials and site facilities.

4.7.2. Any fencing that is damaged so that it is no longer able to protect retained trees must be replaced/repaired immediately at the alignment indicated on the Tree Protection Plan.

4.7.3. The required specification for protective fencing is illustrated in the Tree Protection Index (Insert 1).

4.7.4. The 'in-ground' system involves driving vertical scaffold poles approximately 0.6m into the ground onto which are affixed horizontal scaffold poles and bracing struts. 2m high anti-climb weldmesh panels are then wired to the scaffold framework. The vertical scaffold poles should be at a maximum of 3m apart.

4.7.5. No fixing shall be made to any tree and all possible precautions shall be taken to prevent damage to the tree roots when locating uprights.

4.7.6. A 600mm x 300mm warning sign reading "TREE PROTECTION AREA KEEP OUT" shall be fixed to every 10m of protective fencing, as illustrated on the Tree Protection Index (Insert 2).

4.8. Temporary Site Cabins

4.8.1. All storage facilities and deliveries will make use of existing hard surfaces to avoid unnecessary compaction within RPAs. The locations will be agreed in writing with the LPA prior to delivery and will remain in the agreed locations unless approved by the LPA.

4.8.2. If storage facilities require siting within RPAs, every effort will be made to ensure that any damage to aerial parts of retained trees is avoided and that appropriate footings are used to avoid root damage or compaction of the soil.

4.9. Utilities

4.9.1. At the time of writing Urban Green have not been made aware of any new utilities or service runs that will be associated with the development. Information regarding the layout of new utilities and drainage and final site levels should be submitted to the Arboricultural Consultant so that the impact of these on the retained trees can be assessed.

4.10. Recommendations

4.10.1. An Arboricultural Method Statement (AMS) will not be required to facilitate the proposed development, as there are no works proposed within the RPAs of retained trees.

4.10.2. All operations that could affect trees on and adjacent to the site must be considered as part of the project management of the proposed development. It is therefore recommended that an Arboricultural Consultant is appointed as part of the design and management team to advise on pre-development issues and supervise onsite operations.

4.10.3. The Arboricultural Consultant may also have an advisory role in the preparation of site including tree surgery works and the protection of trees during demolition processes.

Appendix 1 – Tree Data Schedule

The following pages contain information gathered at the site during the tree survey. The reader should refer to Appendices 2 and 3 to correctly interpret the tree survey data.

Reference T = Tree G = Group H = Hedge W = Woodland	Age & Species (Common Name) (*Botanical Name*)	Height (m)	Crown Ht (m)	Lowest Branch Height (m)	Lowest Branch Direction	DBH (mm)	Crown Spread (m) N W E S	Notes	Recommendations Priority	Recommendations Inspect Freq (yrs)	Physiological Condition Structural Condition	Life Expectancy (yrs) Retention Category	RPA Radius (m)
G1	Semi-Mature **Mixed** Species	av 5	2	0	M	av 110	av 2 2 2 2 each	1: Densely spaced linear screening group between footpath and quarry site on sloped ground, creating avenue with occasional larger trees within, density of vegetation prevents detailed inspection. 2: Species include hawthorn, hazel, field maple, goat willow, silver birch, pedunculate oak, elder, rowan, ash, willow sp., rose sp., buddleia, common alder, Italian alder, buckthorn, bramble, nettles, dogwood, aspen. 3: Historic ad hoc pruning to provide clearance to footpath which is currently adequate. 4: Frequent small diameter deadwood and small dead trees internal to group pose no significant risk currently. 5: Provides screening and shading to footpaths.	No action required. n/a	3	Good Good	40+ B1,2	1.32
H2	Mature **Mixed** Species	av 2	0	0	N	100	1 1 1 1	1: Intermittent/gappy native hedgerow to eastern side of footpath. 2: Predominantly pasture rose with young self set goat willow, oak, grey willow beginning to establish.	No action required. n/a	3	Good Good	40+ C1,2	1.20
H3	Mature **Mixed** Species	av 4	0	0	N	200	3 3 3 3	1: Predominantly hawthorn. Also includes birch, goat willow, grey willow, rose, hazel. 2: Likely to have been previously maintained/flailed, but now overgrown to current dimensions.	No action required. n/a	3	Good Good	40+ B1	2.40
W4	Over-Mature **Mixed** Species	av 28	0	0	N	av 1000	av 15 15 15 15 each	1: Mixed species including ash, beech, sycamore, horse chestnut, elder, lime, hawthorn, yew, elm. 2: Hawthorn hedgerow surrounding periphery. Smaller native species beginning to establish. 3: No major evidence of infection with ash dieback at time of survey. 4: Recent pruning works evident intermittently within woodland. 5: Well used by public, many desire lines throughout. Bat boxes on many trees.	No action required. n/a	3	Good Good	40+ A1	12.00

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T5	Veteran **Ash** *Fraxinus excelsior*	17	0	0	N	1070	N 8 W 8 E 8 S 8	1: Previously heavily reduced to approximately 8m, new vigorous regrowth present to current height. 2: Large cavities/pruning wounds with obvious extensive decay. 3: *Ganoderma australe* present encompassing 40% of tree base. 4: Large stem bulging/galls within main stem. 5: No evidence of infection with ash dieback at time of survey.	No action required. n/a	3	Poor Good	10-20 B1	12.84
G6	Semi mature **Mixed** Species	av 4	0	0	N	200	N 2 W 2 E 2 S 2	1: Previously hedge layed in parts. 2: Native young species mix including goat willow, grey willow, hawthorn, ash, sycamore, elm located to the steep embankment down to quarry.	No action required. n/a	3	Good Good	40+ B1	2.40
W7	Semi-Mature **Mixed** Species	av 16	2	0	M	av 300	N 12 W 12 E 12 S 12 each	1: Mixed plantation bounded by public footpaths and hedgerow. 2: Primarily oak with some ash and coppied hazel, with self-set understorey. 3: Access limited due to dense hedgerow. Self-set woodland beginning to set to northwest. 4: Specimens forced to compete due to density of planting; multiple leaning and declining stems observed along with extensive epicormic growth denoting stress. 5: Snowberry beginning to dominate understorey.	Selective thinning, restore coppiced hazel and thin out snowberry. Low	3	Fair Fair	40+ B1,2	3.60
G8	Semi-Mature **Mixed** Species	av 14	2	0	M	av 500	N 8 W 8 E 8 S 8 each	1: Mixed row growing between footpath to southwest and rear gardens of residential properties to northeast. 2: Willow, elder, hawthorn, beech, hazel, rowan, whitebeam, coppiced hazel, Swedish whitebeam, sycamore. 3: Multiple wounds and decay pockets due to density of growth, intentional/unintentional vandalism and erratic past pruning. 4: Abundant deadwood posing a low risk due to location. Some larger pollarded willows to eastern end of group re-growing; becoming ivy-clad, limiting inspection.	Remove ivy and re-inspect for defects. Moderate	1.5	Fair Fair	20-40 C1	6.00

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G9	Semi-Mature **Mixed** Species	av 16	2	0	M	av 350	av N 8 W 8 E 8 S 8 each	1: Row of tall ash trees growing in heaped spoil at plantation edge, to southwest of footpath, with self-set understorey of field maple, hawthorn, whitebeam, swedish whitebeam, hazel and elder. 2: Displaying symptoms indicative of *Chalara* ash dieback. 3: Deadwood overhanging footpath, largely small-diameter at present. 4: Access limited due to stock fence adjacent to footpath. 5: Increased inspection is recommended for pathside ash trees; currently in acceptable condition but decline may accelerate.	No action required. n/a	1	Good Good	20-40 C1	4.20
W10	Semi-Mature **Mixed** Species	av 10	2	0	M	av 300	av N 6 W 6 E 6 S 6 each	1: Growing between pond and site boundary. Land slopes steeply down to pond, limiting inspection due to incline. Mixed planted and self-set. 2: Hawthorn, beech, field maple, cherry, birch and willow; mainly smaller specimens forming border between footpath and pond. 3: Field maple planted as hedge adjacent to public footpath. 4: No major visible defects.	No action required. n/a	3	Good Good	40+ B1,2	3.60
W11	Semi-Mature **Mixed** Species	av 9	2	0	M	av 250	av N 5 W 5 E 5 S 5 each	1: Dense wooded group of planted and self-set trees; cherry, hawthorn, birch, sycamore, ash and oak; fence partially removed. 2: Growing on spoil and construction rubble; densely spaced, leading to shade-stunting, etiolated growth and shade dead-wood. 3: Leaning stems and dead-wood internal to woodland posing low risk due to location.	Selective thinning. Low	3	Fair Good	20-40 C1	3.00
W12	Semi-Mature **Mixed** Species	av 17	2	0	M	av 400	av N 8 W 8 E 8 S 8 each	1: Mixed planted and self-set woodland group growing at southwest boundary, comprising aspen, white willow, birch, oak, cherry, alder, hazel. 2: Dense undergrowth limiting inspection; multiple dead and leaning stems internal to group posing a low risk due to location.	No action required. n/a	3	Good Good	40+ B1,2	4.80

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G13	Young **Mixed** Species	av 6	2	0	M	av 150	av N 6 W 6 E 6 S 6 each	1: Self-set clumps and open-grown specimens; field maple, hawthorn, sycamore, blackthorn, birch, aspen, alder.	No action required. n/a	3	Good Good	40+ B1,2	1.80
W14	Semi-Mature **Mixed** Species	av 15	2	0	M	av 300	av N 10 W 10 E 10 S 10 each	1: Mixed group of self-set hawthorn, field maple, sycamore, ash, birch and elder growing on heaped spoil between two palisade fences. 2: Ash trees within group displaying symptoms indicative of *Chalara* ash dieback. 3: Adjacent to active construction site. 4: Access limited due to fencing, preventing a thorough inspection.	No action required. n/a	3	Good Good	40+ B1	3.60
W15	Semi-Mature **Mixed** Species	av 15	2	0	M	av 350	av N 8 W 8 E 8 S 8 each	1: Mixed group of planted and self-set birch, wild cherry, goat willow, ash, white willow, field maple, hawthorn, gelder rose, aspen, dogwood, privet and hazel. 2: Growing to northwest of public footpath behind mesh fence, with access limited due to fence and dense undergrowth. 3: Abundant dead-wood including several dead stems, posing a low risk due to location; stems largely huanging in adjacent canopies. 4: Would benefit from selective thinning.	Remove a section for development, see Tree Removal Plan. n/a	3	Good Good	20-40 B1,2	4.20
G16	Semi-Mature **Mixed** Species	av 12	2	0	M	av 200	av N 6 W 6 E 6 S 6 each	1: Line of trees growing on heaped spoil along southeast edge of public footpath; comprising goat willow, birch, alder, blackthorn and ash. 2: Ash trees within group displaying symptoms indicative of *Chalara* ash dieback. 3: Some defects noted such as decay pockets, stubs from snapped branches and epicormic growth, posing a low risk due to location and size of trees.	Remove a section for development, see Tree Removal Plan. n/a	3	Good Fair	20-40 C1	2.40

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G17	Early-Mature **Mixed** Species	av 14	3	0	M	av 230	av 7.5 7.5 7.5 7.5 each	1: Surrounding vegetation prevents detailed inspection. 2: Densely spaced group of silver birch, goat willow, wild cherry, field maple, alder and apple with hawthorn, hazel, cherry laurel, dogwood, elder and bramble growing around footpath. 3: Maintained along public footpaths from which clearance is currently adequate, minimal evidence of previous management within. 4: Small diameter deadwood and occasional dead stems internal to group pose no significant risk currently. 5: Provides screening and shading to footpaths.	No action required. n/a	3	Good Fair	40+ B1, 2	2.76
G18	Semi-Mature **Mixed** Species	av 9	av 3.5	1	E	av 390	av 5 2.5 3 4.5 each	1: Boundary screening group of five Norway maple and one wild cherry on slightly raised and rocky soil bund. Within quarry site but outside redline. 2: Bifurcated stems from 0.5-2m above ground level with narrow unions and good reaction growth. 3: Multiple pruning wounds due to crown lifting and reduction to lower stems to north and east, older wounds completely occluded, some occlusion to newer cuts. 4: Small diameter deadwood noted internal to group poses no significant risk, evidence of some surface root severance. 5: Canopies to south growing towards offsite street light, adequate clearance over adjacent footpath currently.	No action required. n/a	3	Good Fair	40+ C2	4.68
G19	Semi-Mature **Ash** *Fraxinus excelsior*	av 9	av 3	2.5	M	av 260	av 6 3 3.5 4.5 each	1: Group of four on slightly raised and rocky soil bund. Within quarry site but outside redline. 2: Two single stemmed and two bifurcated stems at 2m above ground level with well formed unions. 3: Multiple stubs and pruning wounds due to crown lifting and reduction with good occlusion and some minor decay to stubs. 4: Symptoms indicative of moderate infection with ash dieback, stem wounds at ground level to 1m with some occlusion. 5: Within falling distance of footpath and highway to east north south, limited long-term retention value.	No action required. n/a	1	Fair Fair	10-20 C1.2	3.12

Reference T = Tree G = Group H = Hedge W = Woodland	Age & Species (Common Name) (*Botanical Name*)	Height (m)	Crown Ht (m)	Lowest Branch Height (m)	Lowest Branch Direction	DBH (mm)	Crown Spread (m) N W E S	Notes	Recommendations Priority	Recommendations Inspect Freq (yrs)	Physiological Condition Structural Condition	Life Expectancy (yrs) Retention Category	RPA Radius (m)
G20	Semi-Mature **Mixed** Species	av 9	av 4	2	M	av 360	av 7 4.5 5.5 4.5 each	1: Moderately spaced boundary screening group of Norway maple and ash on slightly raised and rocky soil bund. Within quarry site but outside redline, bordered by hedgerow to north. 2: Majority have bifurcated stems at approximately 2m above ground level with occasional single stemmed specimen. 3: Multiple stubs and pruning wounds throughout due to crown lifting and reduction, generally occluding well. 4: Small diameter deadwood and one small diameter standing dead stem internal to group poses no significant risk, mild symptoms indicative of infection with ash dieback, predominantly to east. 5: Adequate clearance from and over footpath to south.	No action required. n/a	3	Good Fair	40+ B1. 2	4.32
H21	Early-Mature **Hawthorn** *Crataegus monogyna*	av 3	3	0	M	70	1.5 1.5 1.5 1.5	1: Lapsed boundary hedgerow growing at edge of soil bund north of G3. 2: Small diameter deadwood throughout, poses no significant risk. 3: Acceptable condition at present.	No action required. n/a	3	Good Fair	40+ C1. 2	0.84
H22	Early-Mature **Hawthorn** *Crataegus monogyna*	av 3	3	0	M	50	1 1 1 1	1: Lapsed boundary hedgerow adjacent footpath on slightly raised soil bund with occasional ash, elm and dogwood to east. 2: Acceptable condition at present.	No action required. n/a	3	Good Good	40+ C1. 2	0.60
T23	Mature **Ash** *Fraxinus excelsior*	5	2.5	2.5	E	650	0.5 0.5 1 0.5	1: Surrounding vegetation prevents detailed inspection. 2: Recently pollarded tree growing in overgrown area of thistle. 3: Acceptable condition at present.	No action required. n/a	3	Good Good	20-40 C1	7.80

Reference T = Tree G = Group H = Hedge W = Woodland	Age & Species (Common Name) (*Botanical Name*)	Height (m)	Crown Ht (m)	Lowest Branch Height (m)	Lowest Branch Direction	DBH (mm)	Crown Spread (m) N W E S	Notes	Recommendations		Physiological Condition	Life Expectancy (yrs)	RPA Radius (m)
									Priority	Inspect Freq (yrs)	Structural Condition	Retention Category	
G24	Semi-Mature **Mixed** Species	av 12	2	1	M	av 400	av 6.5 6.5 6.5 6.5 each	1: Density of vegetation prevents detailed inspection. 2: Densely spaced boundary screening group of sycamore, field maple, ash, silver birch, Italian alder, pedunculate oak, willow and lime with elder, hawthorn, hazel and dogwood on raised soil bund with wood chip , biased canopies to southwest due to crown reduction. Presents as small woodland with underdeveloped understory. 3: Evidence of ad hoc pruning throughout with wounds generally occluding well and coppicing of hazel to eastern boundary adjacent hard standing. 4: Symptoms indicative of mild infection with ash dieback. 5: Small diameter deadwood and small dead stems internal throughout pose no significant risk.	No action required. n/a	3	Good Fair	40+ B1. 2	4.80

Appendix 2 – Tree Data Schedule Definition of Terms

Tree Referencing:	**Individual Trees**	T (+number)
	Grouped Trees	G (+number)
	Hedgerows	H (+number)
	Woodlands	W(+number)
Age Category/Life Stage:	**Young**	Usually <15 years
	Semi-mature	Significant growth expected, approximately one third of life expectancy complete
	Early-Mature	Full height achieved with further significant growth possible, up to two thirds of life expectancy complete
	Mature	Full height has been achieved with possible spreading of the canopy, usually past two thirds of overall life expectancy
	Veteran	Usually a tree of significant age with characteristics that give additional cultural, landscape and conservation benefits,
	Over-mature	A tree declining due to age as indicated by deterioration in the health and condition of its crown and trunk.
Species:	**Botanical Name**	conforming to the International Code of Nomenclature for algae, fungi, and plants (ICN). For universal plant recognition.
	Common Name	commonly used names usually on a local and national scale.
Tree Height:	The vertical distance between the base of the tree (where soil and buttress meet) and the tip of the highest branch on the tree.	
Crown Height :	Measured from ground level to the height at which the main crown begins.	
Stem Diameter (DBH):	Stem diameter is measured at 1.5 m above ground level	
Lowest Branch Height & Orientation:	Height above ground level and direction of growth of the lowest lateral branch extending from the main tree stem ('M' denotes stems arising from multiple orientations).	
Crown Spread:	Measurements taken from all four cardinal points in metres.	
Notes:	Notes are made to inform of any possible defects, peculiarities or points of interest that may relate to the trees position, physiology, safety and possible effects on developments.	
Recommendations:	Recommendations are made in accordance with good Arboricultural practice. Recommendations are made regardless to the end usage of the site.	
Priority Scale:	Priority is given dependant on the perceived threat and the likelihood of failure given to a possible hazard. The priority of work is given regardless of the end usage of the site.	
	Urgent	To be carried out as soon as possible.
	Very High	To be carried out within 1 month.
	High	To be carried out within 3 months.
	Moderate	To be carried out within 1 year.
	Low	To be carried out within 3 years.
Physiological Condition:	**Good**	Usually healthy with no symptoms of poor health or disease.
	Fair	Exhibiting signs of poor health or minor disease infections that are not considered to be hazardous.
	Poor	Disease present in considerable quantities or with very poor physiological vigour.
	Very Poor	Tree is in a moribund state in extremely poor condition, usually with little chance of recovery.
Structural Condition:	**Good**	A tree with no significant structural defects.
	Fair	Minor defects may have been observed but are not considered to be immediately hazardous.
	Poor	Significant defects found. Tree requires monitoring or remedial works.
	Very Poor	Major defects that require immediate remedial work or the removal of the tree.
Life Expectancy:	The estimated number of years before the tree may require removal should no unexpected mechanical or environmental impacts occur to the tree.	
Retention Category:	Please refer to Tree retention categorisation table on the next page.	
RPA Radius:	Radial length in metres from the centre of the tree stem to the extent of the Root Protection Area (RPA), calculated in relation to the stem diameter.	

Appendix 3 – Tree Retention Categories

The following table provides an explanation of the BS 5837: 2012 Tree Retention Categories and Subcategories used during the survey and in the report.		
Trees to be Removed:		**Colour on Plan**
BS 5837: 2012 Category U Includes trees of very low quality that offer little or no amenity value.	Trees 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.	**RED**
Trees to be Considered for Retention:		
BS 5837: 2012 Retention Category A Trees of a high quality, with an estimated life of expectancy of at least 40 years	Trees that are excellent examples of their species, usually mature, especially if rare or unusual including veteran trees. Category A trees are likely to enhance a development and should be retained wherever possible.	**GREEN**
BS 5837: 2012 Retention Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.	Trees that are good examples of their species. B category trees are usually mature or younger trees with the potential to reach A category in the future. Although the retention of these trees is desirable, some losses may be acceptable.	**BLUE**
BS 5837: 2012 Retention 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.	**GREY**
BS 5837: 2012 Tree Retention Subcategories:		
BS 5837: 2012 Retention Subcategory 1	Trees possessing mainly Arboricultural qualities.	**n/a**
BS 5837: 2012 Retention Subcategory 2	Trees possessing mainly landscape qualities.	**n/a**
BS 5837: 2012 Retention Subcategory 3	Trees possessing mainly cultural values, including conservation.	**n/a**

NOTE 1: Trees may be assessed as belonging to more than one BS 5837: 2012 Tree Retention Subcategory depending on their perceived value and/or contribution, i.e., A1.2; B2.3 *etc.*
NOTE 2: Trees that are viewed as borderline and do not fit neatly into either of the categories are given a plus or minus rating (+/-) in the tree data schedule. Therefore, C+ would denote a tree being borderline C/B although C is deemed to be the most appropriate category. Similarly, B- would denote a tree being borderline B/C with B seen as the most appropriate category.

Appendix 4 – Site Plans

The site plans referred to in the report follow this page which include the following:

- Tree Constraints Plan
- Tree Removal Plan
- Tree Works Schedule
- Tree Protection Plan
- Tree Protection Index

Although included plans are usually to scale, they are only intended to indicate positions of surveyed trees and dimensions should not be taken from these drawings.

Notes:-

BS 5837: 2012 Retention Category A Tree, Group or Hedge

BS 5837: 2012 Retention Category B Tree, Group or Hedge

BS 5837: 2012 Retention Category C Tree, Group or Hedge

BS 5837: 2012 Category U Tree, Group or Hedge

Root Protection Area (RPA)

\# Position Estimated on Site

Redline Site Boundary

Other Land Under Applicant's Control

REV.	DATE	DESCRIPTION	DRAWN	CHK'D

URBAN GREEN

A: Ground Floor, The Tower,
Deva City Office Park, Trinity Way,
Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Client:
GREEN EARTH DEVELOPMENTS LTD.

Project:
STAIRFOOT QUARRY, BARNSLEY

Title:
TREE CONSTRAINTS PLAN

Issue:
PLANNING

Drawn:	Checked:	Approved:
HL	AH	HM

Project:	Scale @ A0:	Date:
UG1773	1:1000	11/07/24

Dwg No:	Revision:
UG_1773_ARB_TCP_01	00

Notes:-

- BS 5837: 2012 Retention Category A Tree, Group or Hedge
- BS 5837: 2012 Retention Category B Tree, Group or Hedge
- BS 5837: 2012 Retention Category C Tree, Group or Hedge
- BS 5837: 2012 Category U Tree, Group or Hedge
- Retained Tree
- Removed Tree
- # Position Estimated on Site
- Redline Site Boundary
- Other Land Under Applicant's Control

REV.	DATE	DESCRIPTION	DRAWN	CHK'D

U R B A N G R E E N

A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Client: GREEN EARTH DEVELOPMENTS LTD.

Project: STAIRFOOT QUARRY BARNSLEY

Title: TREE REMOVAL PLAN

Issue: PLANNING

Drawn:	Checked:	Approved:
AH	HL	AH
Project: UG1773	**Scale @ A0:** 1:1000	**Date:** 26/06/25
Dwg No: UG_1773_ARB_TRP_01		**Revision:** 00

Tree Works Schedule

Tree Number	BS 5837: 2012 Retention Category	Species	Works Required	Reason
W15	B	Mixed species	Remove a section, as indicated on the Tree Removal Plan, and grind out the stumps	To facilitate the proposed development
G16	C			

REV.	DATE	DESCRIPTION	DRAWN	CHK'D

U R B A N
G R E E N

A: Ground Floor, The Tower,
Deva City Office Park, Trinity Way,
Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Client:
GREEN EARTH DEVELOPMENTS LTD.

Project:
STAIRFOOT QUARRY, BARNSLEY

Title:
TREE WORKS SCHEDULE

Issue:
PLANNING

Drawn:	Checked:	Approved:
AH	HL	AH
Project: UG1773	**Scale @ A0:** N/A	**Date:** 26/06/25
Dwg No: UG_1773_ARB_TWS_01		**Revision:** 00

Notes:-

- BS 5837: 2012 Retention Category A Tree, Group or Hedge
- BS 5837: 2012 Retention Category B Tree, Group or Hedge
- BS 5837: 2012 Retention Category C Tree, Group or Hedge
- BS 5837: 2012 Category U Tree, Group or Hedge
- Retained Tree
- Root Protection Area (RPA)
- Position Estimated on Site
- Redline Site Boundary
- Other Land Under Applicant's Control
- Protective Fencing (See TPI Inserts 1 & 2)

REV.	DATE	DESCRIPTION	DRAWN	CHK'D

URBAN GREEN

A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Client: GREEN EARTH DEVELOPMENTS LTD.

Project: STAIRFOOT QUARRY, BARNSLEY

Title: TREE PROTECTION PLAN

Issue: PLANNING

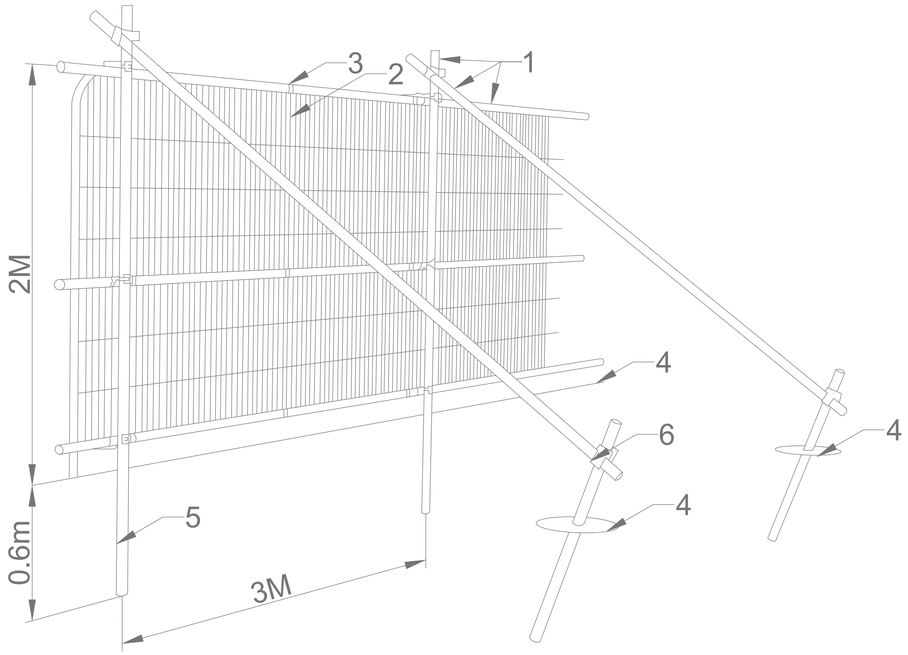
Drawn:	Checked:	Approved:
AH	HL	AH

Project:	Scale @ A0:	Date:
UG1773	1:1000	26/06/25

Dwg No:	Revision:
UG_1773_ARB_TPP_01	00

Insert 1: Tree protective fencing specification

Default specification for protective barrier



Key

1 Standard scaffold poles
2 Heavy gauge 2m tall galvanised tube and welded mesh infill panels
3 Panels secured to upright and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground untill secure (minimum depth 0.6m)
6 Standard scaffold clamps

Insert 2: Tree protection notice

Notes:-

REV.	DATE	DESCRIPTION	DRAWN	CHK'D

U R B A N
G R E E N

A: Ground Floor, The Tower,
Deva City Office Park, Trinity Way,
Manchester M3 7BF

T: +44 (0) 161 312 3131

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Client:
GREEN EARTH DEVELOPMENTS LTD.

Project:
STAIRFOOT QUARRY, BARNSLEY

Title:
TREE PROTECTION INDEX

Issue:
PLANNING

Drawn:	Checked:	Approved:
AH	HL	AH

Project:	Scale @ A0:	Date:
UG1773	N/A	26/06/25

Dwg No:	Revision:
UG_1773_ARB_TPI_01	00