



**79780 BRITISH MUSLIM HERITAGE CENTRE
WHALLEY RANGE
ARBORICULTURAL IMPACT ASSESSMENT
FEBRUARY 2022**

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Document Control

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Prepared for	WHP Telecoms Ltd
Prepared by	The Environment Partnership (TEP) Ltd
Document Ref.	9242.001
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Approved	Tom Popplewell

Amendment History					
Version	Date	Modified by	Approved by	Reason(s) for issue	Status
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1.0	07/02/22	REC	TDP	Approval	Issue

Arboricultural Impact Assessment

1.0 Scope

- 1.1. TEP has been commissioned by WHP Telecoms Ltd to conduct an arboricultural survey of land at the British Muslim Heritage Centre, Whalley Range and to make an assessment in accordance with BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations.
- 1.2. This report has been produced to support a planning application. It describes the findings of field and desktop surveys; the effects that granting planning permission would have on arboriculture; and measures that are and/or should be incorporated in the proposed development.
- 1.3. A judgement has been made in consideration of the survey findings, desktop search results and the nature of the proposed development that a full report style Arboricultural Impact Assessment (AIA) would not be proportionate. This document presents the content of an AIA in a condensed format, which is considered appropriate for relatively simple sites and/or development in relation to trees.

Survey
- 1.4. The survey was undertaken in January 2022 in accordance with BS 5837 by a qualified arboriculturist. The survey method is included at Appendix B.
- 1.5. A topographical survey was not available to record the position of trees and vegetation, therefore all tree locations were estimated using a combination of on-site observations and aerial imagery.
- 1.6. Trees on private land outside the application boundary, and at inaccessible locations were surveyed insofar as was practicable. Whilst reasonable effort has been made to ensure the accuracy and comprehensiveness of such records, it cannot be guaranteed.

Limitation
- 1.7. This report relates to a specific development proposal and should not be interpreted as advice in any other circumstance.
- 1.8. This report constitutes a valid basis for the evaluation of impacts on trees resulting from the proposed development for a period not exceeding 2 years. After this, it would be necessary to review baseline data and conclusions to ensure reliability.
- 1.9. Where the recommendations of this report have been followed, any future deterioration in tree condition shall not be attributable to the development.

Arboricultural Impact Assessment

2.0 Baseline

2.1. This drawing presents an overview of the existing trees within influencing distance of the proposed development. It also summarises the results of desktop searches for any designations, legal and regulatory restrictions or special status of relevance to arboriculture.

Application Site

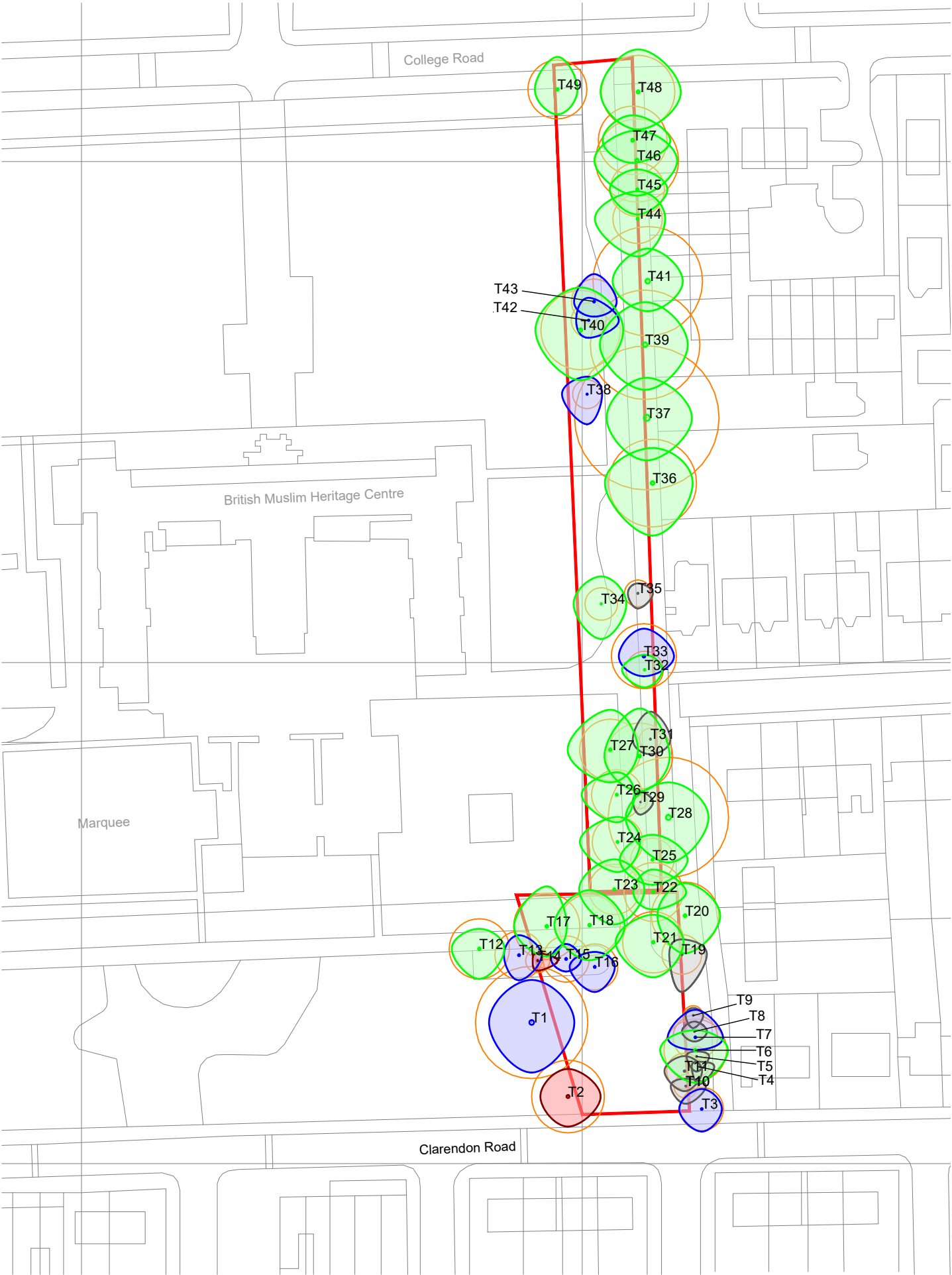
2.2. The site currently comprises part of a gravel surfaced car parking area and vehicular access route within the grounds of the British Muslim Heritage Centre in Whalley Range, south-west Manchester. The car parking area is located at the south of the grounds, directly north of Clarendon Road. The access route connects this to College Road at the north, east of the Grade II Listed Heritage Centre Building, a marquee and further parking and grassed areas within the centre and west of the site.

Survey results

- 2.3. 49 individual trees were recorded within influencing distance of the application site.
- 2.4. Trees on site are predominantly middle aged to mature specimens in fair to good condition. The most prominent trees on site are the mature avenue trees located along the vehicular access route. There are two trees (T2 and T14) on site which are unsuitable for retention irrespective of development due to their current condition.
- 2.5. Trees are predominantly located to the edge of the car parking area to the south of the site and along both sides of the vehicular access route which connects the site and parking area at the south with College Road at the north.
- 2.6. Along the vehicular access route there are a number of large middle-aged to mature avenue trees comprising mostly sycamore, English holly, common beech, common hawthorn, cherry and oak.
- 2.7. Within the southern parking area there is a large weeping willow to the west, a dead Norway maple to the southwest, and an ash along the eastern boundary. Outside of the site boundary wall to the east, tree species comprise common hawthorn, English holly, variegated holly and sycamore.
- 2.8. To the north of the car parking area, a tree lined avenue connects off the main access route to the west. Norway maple are located along the north side of the avenue and hawthorn, cedar, laburnum, cherry and silver birch along the south.
- 2.9. Trees have been categorised in accordance with BS 5837 to describe their arboricultural, landscape or cultural qualities: A (high quality), B (moderate quality) C (low quality) and U (unsuitable for retention). The categorisation of tree quality allows a weighting to be given to each tree within the context of proposed development but is not prescriptive. Hedgerows are not categorised.
- 2.10. A Root Protection Area (RPA) has been calculated in accordance with BS 5837. This is based on each tree's stem diameter at 1.5 metres and has been adjusted where necessary to most accurately represent the likely spread of roots in consideration of prevailing conditions. The RPA represents the minimum area around each tree that must be left undisturbed to ensure its survival. On this site, factors affecting root morphology and growth include the surface vehicular access routes.
- 2.11. Feature locations, their quality categories, canopy spreads and root protection areas are shown opposite. All arboricultural information recorded during the survey is presented at Appendix A.

Desktop Searches

- 2.12. Manchester City Council confirmed that all the trees on the site are protected by Tree Preservation Order reference City of Manchester (College Road, Whalley Range) TPO 1972. The TPO covers the land associated with the British Muslim Heritage Centre.
- 2.13. The site is located within the Whalley Range Conservation Area. Trees T3-T9 are situated outside of the Conservation Area boundary but with canopies overhanging the site in places.
- 2.14. Natural England's Ancient Woodland Inventory (Provisional) for England contains no records of ancient woodland on or adjacent to the site.
- 2.15. There are no veteran trees which could be affected by development of the site.
- 2.16. The site is within the Manchester City of Trees Community Forest.
- 2.17. There are records of Habitats of Principal Importance (Deciduous Woodland) mapped on the site by Natural England's Priority Habitat Inventory, however, observations made during the site survey did not support this.
- 2.18. No assessment of the presence of protected species has been made during the production of this report. Features of possible interest that were observed incidentally during the tree survey are recorded in Appendix A.
- 2.19. Works to and around trees have the capacity to affect protected species, particularly including birds, bats, great crested newts, badgers, dormice, otters and water voles. Contractors should be familiar with the locations and sensitivities of any protected species that are present and take reasonable avoidance measures or comply with the requirements of any licence agreement in accordance with the advice of an ecologist.



KEY

[This drawing must be reproduced in colour]

- T1 Trees
- Root Protection Area (RPA)
- Survey Boundary

Tree Quality Categorisation

(Based on BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations)

- Category A (High quality)
- Category B (Moderate quality)
- Category C (Low quality)
- Category U (Unsuitable for retention)

NOTE: This drawing should be read in conjunction with the respective Arboricultural Survey Data (Appendix A).



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Rev	Description	Drawn	Approved	Date
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Project
79780 British Muslim Heritage Centre, Whalley Range

Title
Arboricultural Impact Assessment [BASELINE]

Drawing Number
D9242.001

Drawn	Checked	Approved	Scale	Date
REC	ML	TDP	1:1,000 @ A3	07/02/2022

Arboricultural Impact Assessment

3.0 Effects

3.1. In simple terms, the effects on arboriculture comprises an account of which existing trees would not be retained within the proposed development; what significance they have; and whether adverse effects would or can be mitigated or offset.

3.2. This drawing presents the results of an assessment in accordance with BS 5837, including a definitive account of which trees would be removed or pruned.

Proposed development

3.3. The proposed development comprises the installation of a 25m height FLI Cypress tree on a 6.5x6.5x1.2m deep concrete base with 6 no. antenna apertures at 70°/190°/310°, 2 no. 600Ø dishes and associated electrical cabinets and ducting. A 2.4m height mesh panel fence with razor wire coil is proposed around the development compound measuring approximately 64m².

3.4. The vehicular access route off College Road will be used to transport the mast equipment to the installation position at the south of the site. Equipment will be delivered on a 17t lorry which will require a clearance of approximately 3.5m height.

3.5. The proposed layout is shown opposite and is based on drawing 1636575_MAN430_79780_M004.

Proposed tree works

3.6. A reasonable worst case assessment of the requirement to prune or remove trees has been made on the basis of BS 5837, the proposed construction methods, and professional judgement. The works listed below and illustrated opposite form part of the proposed development, and would be permitted by the grant of planning consent:

3.6.1. T19 - remove southern stem of twin stem ash tree to ensure canopy clearance from proposed development

3.7. To accommodate the proposed development and reduce future pruning requirements, the southern stem of twin stemmed tree T19 (Category C) should be removed. The stem is currently leaning southeast due to proximity to T20 and T21, thereby forming an asymmetric canopy spread. The tree should be able to tolerate these works due to the current good health and vigour it is displaying and the removal of the stem will help to address the current asymmetric form.

3.9. Trees lining the access road (T21-T49) meet the required canopy clearance of 3.5m height and therefore crown lifting works should not be required.

Recommended tree works

3.10. Irrespective of development, trees T2 and T14 (Category U) should be removed as they are deemed unsuitable for retention due to their current condition.

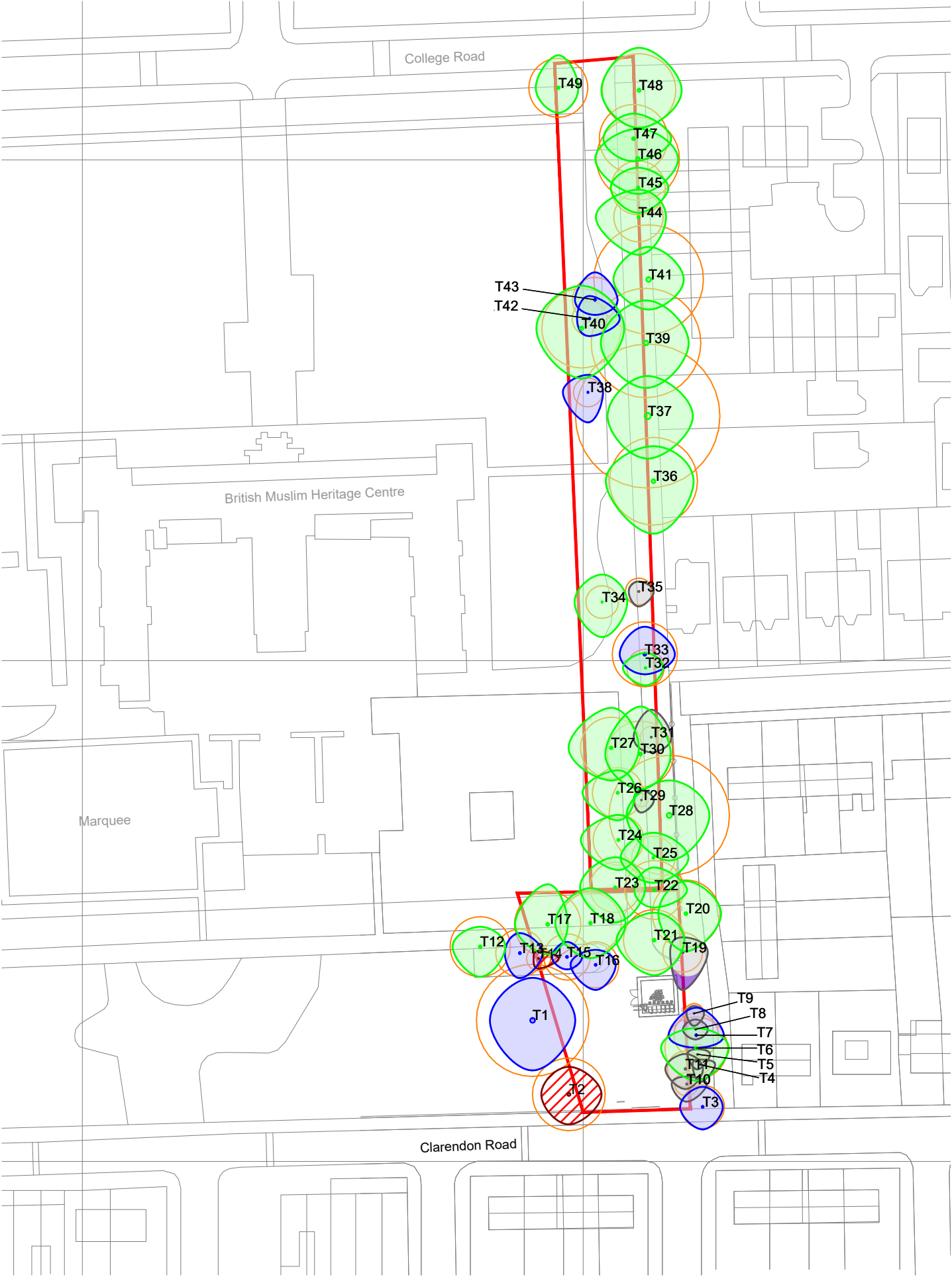
Effects on designated or protected features

3.11. Trees are a material consideration and the quality of trees, planning policies, and the presence of any special status or designation is likely to be considered by consenting authorities when determining a planning application.

3.12. The removal of trees, without mitigation, constitutes an adverse effect that is likely to be regarded by consenting authorities as contrary to the overarching environmental objective within national planning policy to protect and enhance the natural environment and biodiversity.

3.13. In consideration of the desktop search results described previously, there are no adverse effects that cannot be mitigated or offset and which therefore lead to potential grounds for a refusal of planning permission.

3.14. It will be for the consenting authority to evaluate the proposed development, including mitigation measures, in consideration of all relevant local and national planning policies and guidance.



KEY

[This drawing must be reproduced in colour]

- T1 Trees
- Root Protection Area (RPA)
- Survey Boundary

Trees and hedgerow to be retained and protected

- Category A (High quality)
- Category B (Moderate quality)
- Category C (Low quality)
- Category U (May be retained for habitat value)

Proposed tree and hedgerow works

- Trees to be removed (works proposed to T2 and T14 are advisory) (Canopy outline denotes tree quality category)
- Trees to be pruned (T19 - see point 3.7 opposite for description of pruning works) (Canopy outline denotes tree quality category)

NOTE: This drawing should be read in conjunction with the respective Arboricultural Survey Data (Appendix A).



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Project
79780 British Muslim Heritage Centre, Whalley Range

Title
Arboricultural Impact Assessment [EFFECTS]

Drawing Number
D9242.002

Drawn	Checked	Approved	Scale	Date
REC	ML	TDP	1:1,000 @ A3	07/02/2022

Arboricultural Impact Assessment

4.0 Mitigation

- 4.1. This drawing describes mitigation measures that are incorporated within the proposed development and would be secured by the grant of planning permission. It also outlines recommended measures, which are not proposed but which could be secured by planning condition or agreement and therefore relied upon to draw conclusions regarding overall effects in planning terms.
- 4.2. This information is presented in the format of a method statement, which describes actions to be completed by the site manager in chronological order.
- Proposed measures**
- 4.3. The site manager and all contractors must observe and implement everything in this section to avoid a breach of planning.
- Pre-start**
- 4.4. The site manager will read, understand and retain responsibility for implementing this document.
- 4.5. A copy of this document in colour and at A3 will be made available for inspection on site and introduced to all relevant contractors.
- 4.6. Arboriculturist and author of this document, Ruth Chittock, can be contacted on 07384 215333, if required to assist with the correct interpretation of this document and/or inspect tree works and tree protection measures.
- 4.7. An Arboricultural Contractor will be appointed to undertake tree works.
- 4.8. The alignment of temporary tree protection measures shown opposite will be marked out accurately.
- 4.9. Tree works shown on drawing D9219.002 will be completed in accordance with BS3998: 2010 Tree work - Recommendations.
- 4.10. Tree protection fencing will be installed as shown opposite to create Construction Exclusion Zones (CEZ) around retained trees near to works .
- 4.11. The specification for tree protection fencing will be as per Appendix C.
- 4.12. The site manager will inspect and verify the correct installation of tree protection and maintain a photographic record.
- 4.13. Tree protection fencing will not be removed or realigned; and storage, excavation, level change, and access is prohibited within areas of tree protection except as described by this document or an approved Arboricultural Method Statement.
- During construction**
- 4.14. Works will proceed in a careful and logical manner, to prevent accidental damage from cranes, booms and other plant/vehicles.
- 4.15. If major roots (>25mm diameter) are uncovered during construction, works liable to damage them will cease, they will be loosely covered, and arboricultural advice will be sought.
- 4.16. Following completion of all construction works and removal of vehicles, plant, compounds and materials, tree protection will be removed.
- Recommended measures**
- 4.17. The client, site manager and/or contractors should implement everything in this section; compliance may be specifically required by planning condition.
- Planting**
- 4.18. A scheme of tree planting is recommended to offset adverse effects associated with tree loss from the recommended tree works set out in section 3.10. No planting is proposed in response to the pruning of T19 as the northern stem will be retained so no overall tree loss will occur.
- 4.19. The planting should aim to maintain or enhance the benefits provided by trees, particularly visual amenity and screening. It should include:
- 4.19.1. Replacement tree planting for T2 and T14 in the southern part of the site to help filter views of the development from the west.
- 4.19.2. The removal of tree T2 should be mitigated by planting two new native trees with a medium to large mature size, such as hornbeam or beech.
- 4.19.3. The removal of T14 should be mitigated by planting a new native tree with a small to medium mature size such as a wild cherry.
- 4.20. Provision should be made for the maintenance of new planting in accordance with BS 8545:2014 Trees: from nursery to independence in the landscape - Recommendations, and replacement of failures for a period of at least 5 years.



KEY
[This drawing must be reproduced in colour]

- T1 Retained trees, groups and woodland
- Root Protection Area (RPA)
- Survey Boundary
- Tree Protection Fencing (c. 91m or 26 Heras panels)
(Must be installed prior to works commencement)

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THE ENVIRONMENT PARTNERSHIP

Genesis Centre, Birchwood Science Park, Warrington WA3 7BH
Tel 01925 844004 e-mail tep@tep.uk.com www.tep.uk.com

Project
79780 British Muslim Heritage Centre, Whalley Range

Title
Arboricultural Impact Assessment [MITIGATION]

Drawing Number
D9242.003

Drawn	Checked	Approved	Scale	Date
REC	ML	TDP	1:1,000 @ A3	07/02/2022



THE
ENVIRONMENT
PARTNERSHIP

APPENDIX A: Arboricultural Data Sheets



Surveyor Mark Levitt
 Survey Date 11.01.2022
 Site British Muslim Heritage Centre, Whalley Range
 Drawing Ref D9242.001
Italicised Feature Ref: Inspection of this feature was restricted
Italicised Values: Feature value was estimated

APPENDIX A: Arboricultural Survey Data Sheets

Ref	Species	Height	Canopy Ground Clearance	Stem Diameter (or range)	No. of stems/ individuals	Crown Spread North	Crown Spread South	Crown Spread East	Crown Spread West	Lowest Branch Height	Lowest Branch Direction	Maturity	Condition	Comments on form, condition, health and significant defects	Management recommendations in current context	BS 5837 Quality Category	Estimated Remaining Contribution
		(m)	(m)	(mm)	arising below 1.5m	(m)	(m)	(m)	(m)	(m)	(N,S,E,W)	Young, Middle Age, Mature	Good, Fair, Poor, Veteran			A,B,C,U (1,2,3)	Long, Medium, Short, Very Short
Trees																	
T1	Golden weeping Willow	13.0	2.0	933	3	8.5	10.0	8.5	8.5	4.5	NE	Mature	Fair	Multi-stemmed spreading specimen rooted within centre east of gravelled car park area. Previous limb reduction at east, decay and saprotrophic fungal fruiting bodies visible on limb stub		B ,1, 2, 3	Medium
T2	Norway maple	12.0	2.0	604	4	5.5	6.0	6.5	5.5	2.5	N	Middle Age	Dead	Standing dead tree, multi-stemmed at approx. 1m	Fell. Replant a minimum of two new trees nearby in appropriate locations within the grounds.	U	Very Short
T3	Common hawthorn	7.0	2.0	360	4	4.0	4.5	4.0	4.5	2.5	W	Mature	Good	Multi-stemmed tree at Southern end of public footpath within small grassed verge. Stem wound on largest stem at south. Good vigour. Canopy at West overhanging site by approx. 1m.		B ,2	Long
T4	Variegated holly	3.0	0.5	160	1	1.0	3.5	3.0	1.5	2.0	W	Middle Age	Fair	Leaning stem to south east. Topped at approx. 3m.		C ,1	Long
T5	English holly	4.0	1.5	164	2	1.0	3.0	2.5	2.0	2.5	W	Middle Age	Fair	Twin stemmed at near base with fusion just above. Good vigour, rooted directly adjacent larger tree. Lower branches removed. Canopy overhanging site by approx. 0.5m.		C ,1	Long
T6	Sycamore	12.0	2.0	520	1	4.0	6.5	6.5	7.0	4.0	W	Middle Age	Good	Good form, canopy slightly suppressed by tree at north. Good vigour. Rooted adjacent boundary wall at east.		A ,1, 2, 3	Long
T7	Sycamore	11.0	2.5	370	1	5.5	2.5	5.5	5.5	3.5	N	Middle Age	Good	Smaller sycamore north of T6, with canopy suppressed at south. Good vigour, prominent feature with larger southern sycamore rooted at base of boundary wall to east. Stem fused near ground with small holly to north		B ,2, 3	Long
T8	English holly	4.0	2.0	140	1	2.0	2.0	2.5	2.5	2.5	W	Middle Age	Fair	Rooted directly adjacent north of T7. Stems Fused at approx. 0.5m.		C ,1	Long
T9	English holly	5.0	2.0	163	2	1.5	2.5	2.0	1.5	2.5	W	Middle Age	Fair	Twin stemmed at near base. Fused at multiple points above bifurcation. Rooted adjacent boundary wall at east.		C ,1	Long
T10	Sycamore	9.0	2.0	196	3	1.5	3.5	4.0	3.0	2.0	W	Middle Age	Good	Multi-stemmed at base, rooted at base of boundary wall to west. Good vigour. Rooted approx. 5-5.5m from southern boundary wall.		C ,1, 2	Long
T11	Sycamore	11.0	1.5	297	2	3.0	4.0	3.5	4.0	2.0	W	Middle Age	Fair	Rooted approx. 3.5-4m north of T10. Twin stemmed from based. Third stem previously failed or removed with minor decay of remaining stub and minor epicormic growth. Stem wounds above. Good vigour. Rooted at base of wall to west. Small knife in northern stem.		C ,1, 2	Long
T12	Silver birch	18.0	2.0	500	1	4.0	6.0	5.0	5.5	2.5	E	Middle Age	Good	Rooted within raised, stone edged planting bed adjacent driveway running east west. Ivy on stem.	Sever and remove ivy.	A ,2, 3	Long
T13	Silver birch	5.0	1.0	400	1	4.0	5.0	4.5	3.0	2.0	E	Middle Age	Fair	Ivy dense on stem and into canopy. Squat form. Large dead branch at southeast.	Sever and remove ivy.	B ,2, 3	Medium
T14	Laurnham species	4.0	1.5	200	1	1.5	2.0	4.0	1.0	1.5	E	Middle Age	Dead	Standing dead tree with stem lean to east - canopy had grown into adjacent T15. Large crack from base within stem at south and extensive wounding and decay evident. Ivy on stem.	Fell and replace with native species (not ash).	U	Very Short
T15	Western red cedar	10.0	1.5	385	2	3.0	2.5	3.0	3.0	2.0	S	Middle Age	Fair	Wounding at base on buttresses, otherwise in good conditions n with good health and vigour.		B ,2, 3	Long
T16	Common hawthorn	8.0	2.0	382	6	3.0	5.0	4.0	5.0	2.5	E	Mature	Fair	Multi-stemmed at near base, western largest stems fused. Moderate localised dead wood, stem wounds.		B ,2, 3	Long
T17	Norway maple	12.0	2.0	550	1	8.0	6.0	4.0	6.5	2.5	N	Middle Age	Good	Rooted at edge of grassed space, forming avenue with trees either side and at south of drive running east west. Good form, health and vigour. Supporting lights.		A ,1, 2, 3	Long
T18	Norway maple	12.0	3.5	510	1	7.0	7.0	7.0	7.0	2.0	SE	Middle Age	Good	Rooted at southeastern corner of grassed space, forming avenue with trees either side. Good form, health and vigour. Multi-stemmed union. Supporting lights.		A ,2, 3	Long
T19	Common ash	10.0	2.0	330	2	3.0	7.5	5.0	2.5	4.0	SW	Middle Age	Fair	Twin stemmed at base. Base obscured by debris. Appears to be in good health with good vigour. Stems leaning southeast due to proximity to T20 and T21.	Remove debris from within rooting area and around stem.	C ,1, 2	Medium
T20	Sycamore	13.0	3.5	560	1	6.5	7.5	7.0	5.5	4.0	W	Middle Age	Good	Imbalanced canopy, not overhanging drive, crown raised at West. Rooted adjacent west of low wall and boundary fencing.		A ,2, 3	Long
T21	Norway maple	16.0	2.5	510	1	5.5	7.0	6.0	7.5	4.0	W	Middle Age	Fair	Southernmost tree of entrance driveway, rooted on small bank at east of drive, exposed and damaged roots. Appears in good health and with good vigour.		A ,2, 3	Long
T22	Sycamore	17.0	5.5	490	1	4.5	3.5	6.5	4.0	6.0	SW	Middle Age	Good	Tall upright, narrow formed tree. Good health and vigour. Part of avenue. Branch overhanging drive at approx. 5.5m		A ,2, 3	Long



Surveyor Mark Levitt
 Survey Date 11.01.2022
 Site British Muslim Heritage Centre, Whalley Range
 Drawing Ref D9242.001
Italicised Feature Ref: Inspection of this feature was restricted
Italicised Values: Feature value was estimated

APPENDIX A: Arboricultural Survey Data Sheets

Ref	Species	Height	Canopy Ground Clearance	Stem Diameter (or range)	No. of stems/ individuals	Crown Spread North	Crown Spread South	Crown Spread East	Crown Spread West	Lowest Branch Height	Lowest Branch Direction	Maturity	Condition	Comments on form, condition, health and significant defects	Management recommendations in current context	BS 5837 Quality Category	Estimated Remaining Contribution
		(m)	(m)	(mm)	arising below 1.5m	(m)	(m)	(m)	(m)	(m)	(N,S,E,W)	Young, Middle Age, Mature	Good, Fair, Poor, Veteran			A,B,C,U (1,2,3)	Long, Medium, Short, Very Short
T23	Norway maple	16.0	3.5	420		6.0	7.0	6.0	7.0	2.0	SW	Middle Age	Good	Upright form, good health and vigour. Part of avenue West of drive. Supporting lights. Canopy overhanging drive at approx. 3.5-4m.		A ,2, 3	Long
T24	Norway maple	16.0	4.0	420		5.0	6.0	4.5	7.5	2.5	E	Middle Age	Good	Upright form, good health and vigour. Part of avenue West of drive. Supporting lights. Canopy overhanging drive at approx. 4m.		A ,2, 3	Long
T25	Norway maple	16.0	3.5	360	1	5.0	5.0	7.0	6.5	2.5	SW	Middle Age	Good	Upright form, part of avenue at east of drive. Canopy over drive approx. 3.5-4m.		A ,2, 3	Long
T26	Norway maple	16.0	4.5	420		4.5	5.5	3.5	7.0	2.0	E	Middle Age	Good	Upright form, good health and vigour. Part of avenue West of drive. Supporting lights. Canopy overhanging drive at approx. 4.5m.		A ,2, 3	Long
T27	Norway maple	16.0	4.5	510	1	8.0	6.5	5.5	8.5	2.5	NE	Middle Age	Good	Good form and vigour, slight imbalanced canopy. Part of avenue West of drive. Canopy over drive at approx. 4-4.5m		A ,1, 2, 3	Long
T28	Sycamore	18.0	4.5	1000	1	7.0	9.0	8.0	8.5	4.5	SW	Mature	Good	Bifurcate at approx. 1.8m. Large stems above, lean to southeast. Good health and vigour. Canopy over drive at approx. 4.5-5m.		A ,1, 2, 3	Long
T29	Sorbus species	4.0	3.0	110	1	2.0	2.5	2.5	1.5	2.0	NW	Middle Age	Fair	Approx. 5m from T28 to the NW. Approx. 5.5m south if T30. Small tree with branch reduced, now decaying, at west. Decay in branch above to north, otherwise good health and vigour.	Reduce upper decayed branch to union with health branch for clearance (reduce by approx. 1.3m).	C ,1	Long
T30	Sycamore	19.0	4.0	550	1	9.5	7.0	6.0	7.0	2.5	N	Middle Age	Good	Tall upright tree adjacent east of drive, part of avenue. Good health and vigour.		A ,1, 2, 3	Long
T31	Cherry species	7.0	2.0	180	1	5.5	3.0	4.0	3.5	1.5	W	Middle Age	Fair	Lower branches removed at west at approx. 1.5m. canopy weighted north. Overhanging drive at approx. 2-2.5m to 6m		C ,1, 2	Long
T32	Common hawthorn	11.0	4.0	310	1	3.0	3.5	3.5	4.5	3.5	W	Mature	Good	Good form, health and vigour. Part of avenue effect with other trees along drive.		A ,1, 2, 3	Long
T33	English holly	10.0	3.5	540	4	5.5	4.0	6.0	5.0	4.0	W	Middle Age	Good	Multi-stemmed at base, fused stems and small bark splits. Signs attached. At drive junction close to T32.		B ,2, 3	Long
T34	Norway maple	10.0	1.5	270	1	5.5	7.0	5.0	5.5	2.0	SE	Middle Age	Good	Good form, health and vigour. Canopy over drive at approx. 3 to 5m.		A ,1, 3	Long
T35	Rhododendron species	2.0	1.0	221	10	2.0	3.0	3.0	2.0	1.5	W	Mature	Good	Multi-stemmed specimen with good health and vigour. Adjacent east of drive. Overhanging by approx. 1m from approx. 1.5m to 2m.		C ,1	Long
T36	Sycamore	19.0	1.5	730	1	7.0	10.5	8.0	9.5	4.0	SW	Mature	Good	Part of avenue East of drive. Good form, health and vigour. Canopy overhanging drive at approx. 3-4m.		A ,1, 2, 3	Long
T37	Sycamore	19.0	2.5	1200	1	8.0	8.5	9.0	8.0	2.5	NW	Mature	Good	Bifurcate at approx. 1.8m. large stems above, good health and vigour. Part of avenue at east. Canopy overhanging avenue at approx. 2m at east then again from approx. 2.5m to 6m in centre.		A ,1, 2, 3	Long
T38	Cherry plum	7.0	2.0	240	1	3.5	6.0	3.0	5.0	2.5	E	Middle Age	Good	Imbalanced canopy. Good health and vigour.		B ,2, 3	Long
T39	Sycamore	19.0	4.0	910	1	8.5	9.0	8.5	9.0	4.5	W	Mature	Good	Bifurcate with tight union at approx. 2.5m. Canopy over drive at approx. 4-4.5m		A ,1, 2, 3	Long
T40	Common beech	22.0	3.0	660	1	8.5	10.0	8.5	9.0	6.0	E	Mature	Good	Very tall tree with curving single stem. Good health and vigour. Canopy over drive down to approx. 3-3.5m.		A ,1, 2, 3	Long
T41	Sycamore	19.0	2.0	910	1	6.5	6.0	7.0	7.0	2.5	W	Mature	Good	Bifurcate at approx. 2-2.5m. Large twin stems above. Canopy over drive at approx. 6-6.5m.		A ,1, 2, 3	Long
T42	English holly	9.0	2.5	290	1	4.5	3.5	6.0	2.5	3.5	NE	Mature	Good	Single stemmed specimen, good health and vigour, canopy weighted east - down to approx. 3.5m above drive.		B ,2, 3	Long
T43	English holly	9.0	3.0	375	2	5.5	3.0	4.5	4.0	4.5	E	Mature	Good	Twin stemmed specimen, good health and vigour, canopy down to approx. 3.5-4m above drive.		B ,2, 3	Long
T44	Norway maple	13.0	4.0	410	1	5.5	7.5	5.5	8.5	4.0	NW	Middle Age	Good	Stem lean to west. Good health and vigour. Canopy over drive at approx. 4-4.5m		A ,1, 2, 3	Long
T45	Sycamore	13.0	2.0	450	1	4.0	5.0	6.0	5.5	2.0	W	Middle Age	Good	Kinks in stem and ivy previously severed on stem. Canopy over drive by 1-1.5m at approx. 5.5m. Good health and vigour.		A ,2, 3	Long
T46	Sessile oak	19.0	1.0	690	1	6.0	7.0	8.0	8.5	6.0	SW	Middle Age	Good	Stem lean to east, canopy low at west - over drive at approx. 2.5m at east to 3.5m at centre		A ,1, 2, 3	Long
T47	Sycamore	5.0	3.0	570	1	5.0	4.5	7.5	6.0	6.0	NW	Middle Age	Good	Good health and vigour. Canopy over drive at approx. 6m at east to 8m in centre.		A ,1, 2, 3	Long
T48	Sycamore	5.0	3.0	610	1	8.5	7.5	8.5	7.5	5.5	W	Middle Age	Good	Good health and vigour. Canopy over drive at approx. 4-4 m		A ,1, 2, 3	Long
T49	Sycamore	12.0	3.5	490	1	6.5	5.0	4.0	4.5	5.0	N	Middle Age	Good	Good health and vigour. Canopy over road and drive at approx. 5-6m. Over pavement at approx. 3.5m		A ,2, 3	Long



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APPENDIX B: Survey Method

APPENDIX B: Survey Method

The survey of trees is conducted from ground level only. The nature of the soils on site is not assessed.

Trees are dynamic living organisms with a constantly changing structure; even trees in good condition can suffer from damage or stress. The information recorded is presented as being correct at the time of survey.

The following features of each tree, group of trees or wood may have been recorded in the Arboricultural Survey Data Sheets at Appendix 1.

Species	The common name is given. The Latin name may also be given if further clarification is required.	
Height	Top height of tree recorded in metres.	
Stem Diameter	For single-stemmed trees the measurement is taken at 1.5 metres above ground level and recorded in millimetres. For multi-stemmed trees an average all stems measured at 1.5m above ground level is used. For tree groups a range from minimum to maximum diameters is provided based on measurements taken using one of the aforementioned methods.	
No. of Stems	A count of stems arising below a height of 1.5 metres.	
Crown Spread	The N, S, E and W branch spreads are recorded in metres to provide a representative crown shape.	
Height of Lowest Branch	Crown clearance above ground level recorded in metres.	
Direction of Lowest Branch	The direction of growth of the first significant branch from the point of attachment.	
Maturity	Young	Trees that can reasonably be relocated or replaced like for like, without undue cost;
	Middle Age	Trees in the established growth stage of their life with the potential to continue increasing in size;
	Mature	Trees that have reached their ultimate size, given their location and surroundings;
Condition	Good, Fair, Poor. An overall assessment of a tree's physiological and structural state in which factors that may increase its susceptibility to the effects of development are taken into account. Veteran. Trees that are in such a condition as to significantly increase their biological, cultural or aesthetic value. This is characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned.	
Comments	A brief evaluation and description of the tree with comments on form, vitality, health and any significant defects or symptoms of ill-health.	

BS 5837 Tree Quality Assessment

The tree quality assessment is based on Table 1 of BS 5837:2012 (See below). Four categories (A, B, C and U) are used to denote tree quality (A= High, B = Moderate, C = Low, U= Unsuitable for retention). Subcategories (1-3) denote the specific function value of the trees and the reasoning behind the allocation of a specific category (the subcategories may be used in combination but do not accumulate collective weight).

Root Protection Area (RPA)

The RPA is allocated to ensure that a sufficient area is left undisturbed during development. It is provided as an area (m²) and as the radius of a circle (m) typically plotted from the centre of the stem.

The RPA is calculated using a mathematical equation included in BS 5837:2012 (Section 4.6 and Table D.1) and is based on a tree's stem diameter. In some cases the RPA may need to be adapted to best reflect the likely area and position of roots required to ensure survival; this may be based on criteria such as the tree's condition, species, crown spread and any barriers to growth. Any alteration must be justifiable but is made at the Arboricultural Consultants discretion.

Recommendations

Recommendations for arboricultural works, etc. are based on the **current** land use, and take into account the tree or group attributes without bias to the proposed development.

Estimated Remaining Contribution

An estimation of the life expectancy as healthy functioning tree. This will be influenced by species and the condition of the tree at the time of survey.

Long	> 40 years
Medium	20 – 40 years
Short	less than 20 years

APPENDIX B: Survey Method

Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	- Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) - Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline - Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i>			See Table 2
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	See Table 2
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	See Table 2
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	See Table 2

British Standards Institute (2012) *BS5837:2012 Trees in relation to design, demolition and construction – Recommendations.*
p.9

NOTES:

All young trees are assessed as quality category 'C' but this does not preclude their retention within a development.

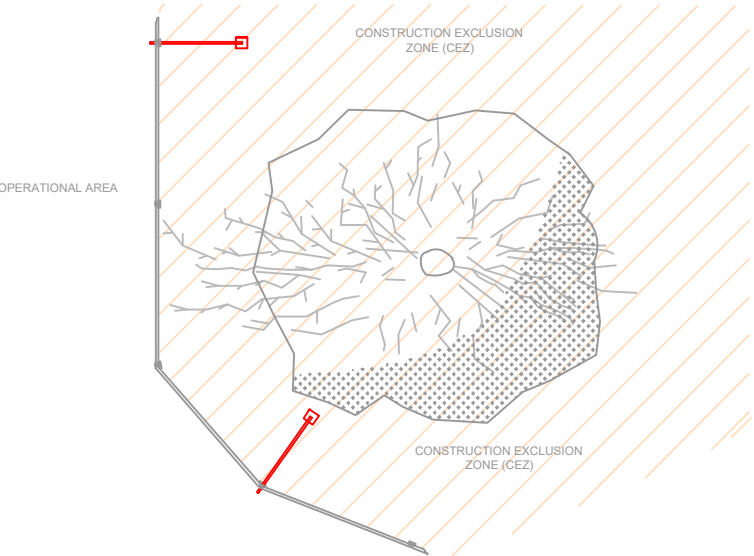
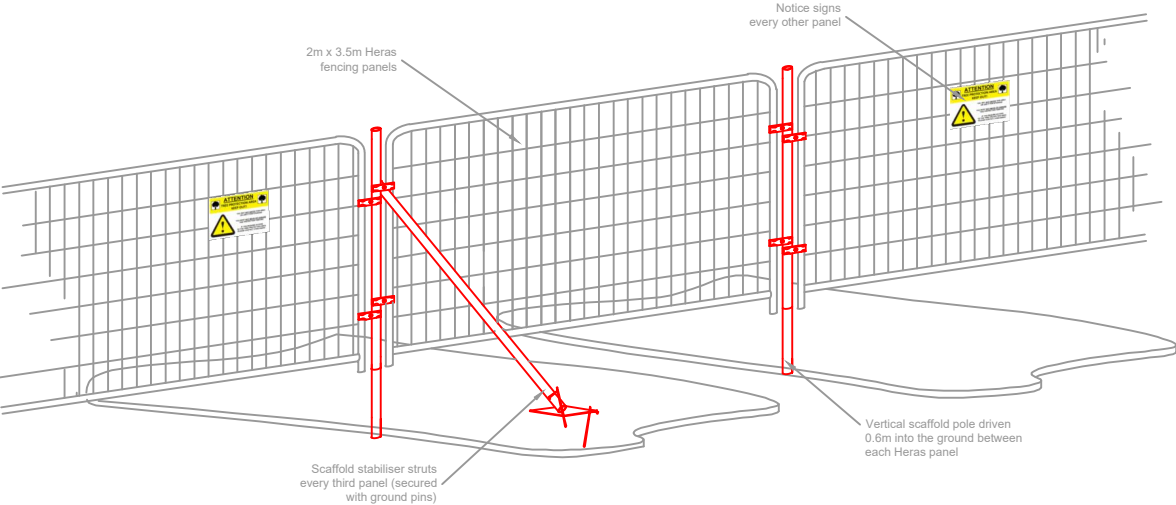
For hedges the height, canopy spread and number of stems is recorded but they are not assigned a quality category.



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APPENDIX C: Specification Drawings

Tree Protection Fencing for use on soft surfaces

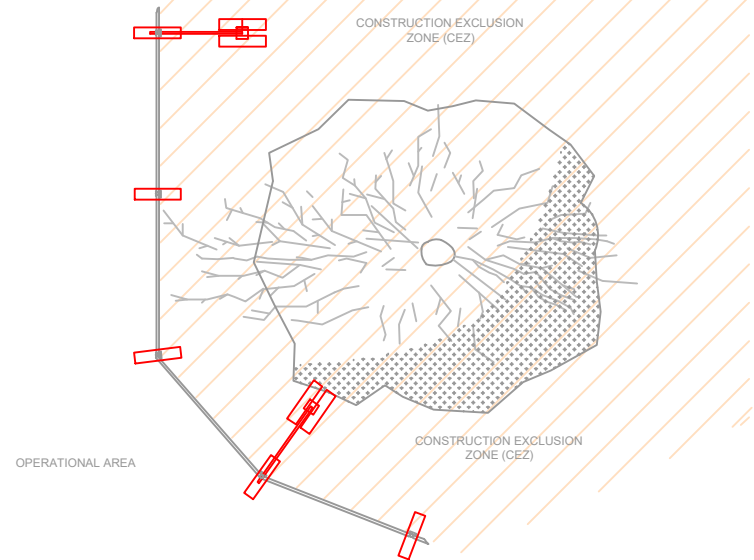
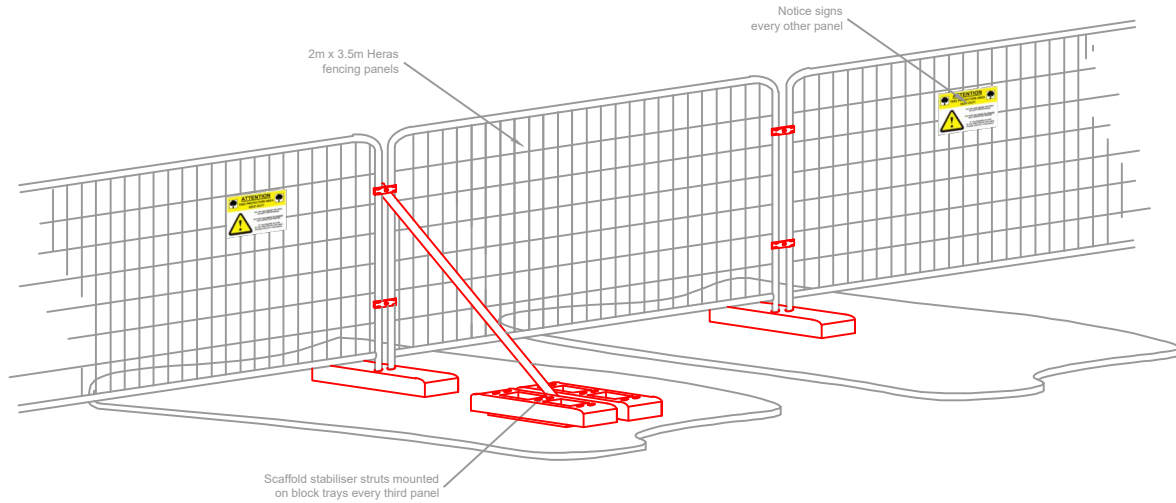


Per 3No. Heras panels (10.5m)

Component	Quantity
2m x 3.5m Standard Heras panels	3
3m Galvenised steel scaffold pole	3
Heras fecurity fence clip	12
Heras stabilising support bar	1
Stabilising pin	2
Tree protection notice	2

Notes:

Tree Protection Fencing for use on hard surfaces



Per 3No. Heras panels (10.5m)

Component	Quantity
2m x 3.5m Standard Heras panels	3
Rubber fencing block tray (footing)	5
Scaffold clamp double coupler	6
Heras stabilising strut support bar	3
Tree protection notice	2

Notes:

Rev	Description	Drawn	Approved	Date
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TEP

THE ENVIRONMENT PARTNERSHIP

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Tel 01925 844004 e-mail tep@tep.uk.com www.tep.uk.com

Project

Title
Temporary tree protection fencing specifications

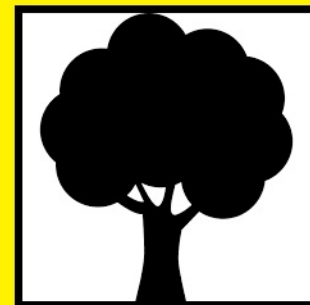
Drawing Number
TEP.ARB.FEN.003

Drawn	Checked	Approved	Scale	Date
TDP	RMG	JGS	(not to scale) @ A3	09/07/2019



ATTENTION

**TREE PROTECTION AREA
KEEP OUT!**



**YOU MAY NOT ENTER THIS AREA
OR USE IT FOR STORAGE**

**YOU MUST NOT MOVE OR DAMAGE
THIS PROTECTION FENCING**

**IF YOU REQUIRE ACCESS
TO THE TREE PROTECTION AREA
PLEASE CONTACT 01925 844004**

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