ARBORICULTURAL IMPACT ASSESSMENT (AIA) & ARBORICULTURAL METHOD STATEMENT (AMS)

Planning Application Reference: PLA-2026-000452

Site Address: 15 Cresswell Grove, West Didsbury, Manchester, M20 2NH

Client / Applicant: Eralda Koxhaj

Architectural Designer: SW Foulkes Design

Associated Approved Drawing: Tree Protection Plan (BS 5837:2012) – Drawing No. 581-01-106P

Primary Standards:

- British Standard BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations
- British Standard BS 3998:2010 Tree work – Recommendations
- Manchester City Council Local Development Framework Core Strategy Development Plan Document (Policy EN 9 – Green Infrastructure)
- National Joint Utilities Group (NJUG) Volume 4

1. INTRODUCTION & SCOPE OF REPORT

1.1 Purpose of the Report

This comprehensive Arboricultural Impact Assessment (AIA) and Arboricultural Method Statement (AMS) has been prepared to accompany a full planning application submitted to Manchester City Council (Ref: PLA-2026-000452) for the conversion, two-storey side extension, and rear dormer addition to 15 Cresswell Grove, creating four self-contained apartments with associated external works, permeable hardstanding, and service infrastructure.

This report provides the formal arboricultural submission required to resolve Invalidation Item 4 issued by Manchester City Council Planning Services, ensuring full compliance with BS 5837:2012 and Manchester Core Strategy Policy EN 9.

1.2 Statutory Tree Protection (Conservation Area Status)

The subject property is located within the Albert Park Conservation Area, designated under the Planning (Listed Buildings and Conservation Areas) Act 1990.

- All trees within the site boundary or immediately adjacent with a stem diameter of 75 mm or greater (measured at 1.5 m above ground level) are subject to statutory protection equivalent to a Tree Preservation Order (TPO).
- Felling, uprooting, topping, lopping, or willful damage to protected trees without prior authorization constitutes an offense. The formal grant of full planning permission incorporating this AIA/AMS confers the statutory consent required for the approved tree operations.

2. TREE INVENTORY SCHEDULE & SURVEY DATA

2.1 Survey Methodology

Field measurements and visual assessments comply with BS 5837:2012:

1. Single-Stem Root Protection Area (Clause 4.6.1):

RPA Radius (m) = Stem Diameter (DBH in mm at 1.5 m) × 0.012

RPA Ground Area (m2) = π × (RPA Radius)2

2. Multi-Stem Root Protection Area (Annex C):

Equivalent DBH (deq) = $\sqrt{}$((d1)2 + (d2)2 + (d3)2)

RPA Radius (m) = deq × 0.012

BS 5837 Table 1 Retention Categories:

- Category A (Green): Trees of high quality with an estimated life expectancy of at least 40 years.
- Category B (Blue): Trees of moderate quality with an estimated life expectancy of at least 20 years.
- Category C (Grey): Trees of low quality with an estimated life expectancy of at least 10 years, or young trees with a stem diameter under 150 mm.
- Category U (Red): 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.

2.2 Confirmed BS 5837:2012 Tree Schedule

Tree ID	Common Name	Stem Count	Stem DBH (mm)	RPA Radius (m)	RPA Area (m2)	Life Stage	Crown Radius (m)	Retention Category	Proximity & Site Relationship	Disposition
T1	Goat Willow (Salix caprea)	Multi-stem	d1=270, d2=220, d3=190 (deq=397)	4.76	71.2	Semi-mature	N: 3.5 E: 4.0 S: 3.0 W: 2.5	Category C	Grows out of low basal stool directly behind front dwarf retaining wall; structural conflict with brickwork.	Fell / Remove
T2	Sycamore (Acer pseudoplatanus)	Single	310	3.72	43.5	Semi/Mature	N: 4.0 E: 3.5 S: 3.5 W: 4.0	Category B	Front NW boundary fronting street; heavy Hedera helix coverage. Crossover passes through outer RPA.	Retain & Protect
T3	Sycamore	Single	310	3.72	43.5	Semi/Mature	N: 3.5	Category	Adjacent to	Retain &

							E: 4.5 S: 4.0 W: 3.0	B	existing single-storey garage and proposed side extension.	Protect
T4	Sycamore	Single	450	5.40	91.6	Mature	N: 6.0 E: 5.5 S: 5.5 W: 6.0	Category B	Off-site mature tree in neighbouring NW garden. Dominant canopy to street scene.	Retain & Protect

2.3 Root Morphology & Asymmetry (BS 5837:2012 Clause 4.6.2)

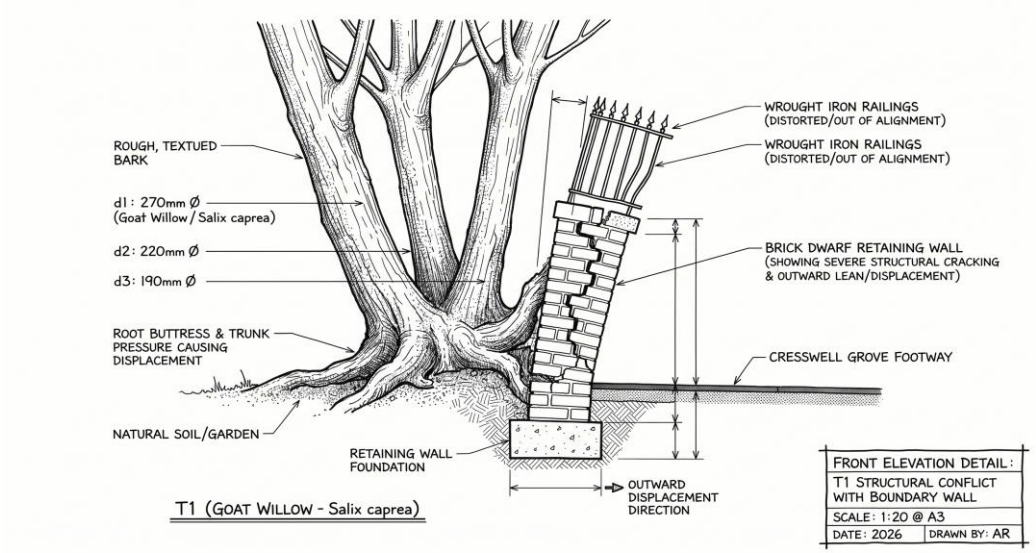
- The theoretical circular RPAs for T1 (4.76 m), T2 (3.72 m), and T3 (3.72 m) extend partially westward beyond the site curtilage onto Cresswell Grove.
- In accordance with Clause 4.6.2, circular root distribution represents an idealized model that must be interpreted against physical site realities.
- The street boundary features a substantial brick dwarf retaining wall and footing. Beyond this wall, the footway and carriageway consist of heavily compacted engineered Type 1 sub-bases beneath dense, impervious bituminous tarmacadam. This environment is anoxic and mechanically impenetrable to fine root tip elongation.
- Consequently, functional nutrient- and moisture-absorbing root development for T1, T2, and T3 is constrained to the west and concentrated eastwards and southwards into the uncompacted domestic garden soils.

3. ARBORICULTURAL IMPACT ASSESSMENT (AIA)

3.1 Proposed Tree Removals & Policy EN 9 Justification

- Quantification: Exactly one (1) tree is proposed for removal: Tree T1 (Goat Willow - Category C). Trees T2, T3, and off-site T4 are fully retained and safeguarded.

DETAIL: T1 STRUCTURAL CONFLICT WITH BOUNDARY WALL



3. Direct Structural Conflict: T1 is a multi-stemmed Willow growing out of a low basal stool situated directly behind and in direct contact with the front retaining dwarf wall. The secondary radial increment across its three upright stems (d1=270 mm, d2=220 mm, d3=190 mm, yielding deq=397 mm) has exerted immense lateral displacement against the masonry. This has cracked the mortar beds, tilted the brickwork into the public highway footway, and buckled the ornamental iron railings. Repairing this boundary wall to a structurally stable condition is impossible while retaining this specimen.
4. Arboricultural Quality: As a fast-growing, short-lived pioneer species with an irregular multi-stem form, low stem unions susceptible to included bark, and a short safe useful life expectancy (SULE < 10 years), T1 falls strictly within Category C.

5. Manchester Core Strategy Policy EN 9 (Green Infrastructure) Net Gain: Policy EN 9 requires development to protect valuable green infrastructure and provide compensatory tree planting where losses occur. To exceed Policy EN 9 requirements:

- Two (2) heavy-standard native trees (stem circumference 12–14 cm at planting; e.g., Sorbus aucuparia / Rowan and Betula pendula / Silver Birch) will be planted within the front curtilage.
- This provides a 2:1 replacement ratio, replacing a deteriorating Category C Willow with high-value specimens offering long-term visual amenity to the Albert Park Conservation Area.

3.2 Evaluation of Works in Proximity to Retained Trees (T2, T3 & T4)

A. Demolition of Existing Side Extension & Garage (Adjacent to T3)

- The single-storey garage and rear family room are situated within the theoretical 3.72 m RPA of T3.
- Traditional mechanical demolition using 360-degree tracked excavators poses severe risks of soil compaction, root shearing, and branch collision.
- Mitigation on Drawing: The entire garage and single-storey footprint is demarcated under the instruction: "line of ex side extensions to be demolished using non-impact hand tools". Superstructures will be taken down progressively inward, tracking only on the existing concrete floor slab.

B. Vehicular Access Route Across RPAs (T2 & T3)

- The proposed driveway crossover and parking bays traverse the outer rooting margins of T2 and T3.
- Mitigation on Drawing: A defined Temporary Ground Protection Route will be installed prior to works commencing, using non-woven geotextile, compressible woodchip, and heavy-duty interlocking ground protection mats to prevent compaction during the construction phase.
- Permanent Permeable Surface: All new finished parking surfaces within the RPAs of T2 and T3 will be constructed above existing grade using a no-dig 3D cellular confinement system (100 mm depth) infilled with clean angular aggregate (BS 7533-13 Type 4/20, no fines) and topped with permeable paving blocks.

C. Underground Services

- All drainage connections, EV charging conduits, and utility incoming feeds will be routed outside the Construction Exclusion Zones of T2 and T3.
- Any essential minor connections within the RPAs must comply with NJUG Volume 4, utilizing pneumatic air-spade trenching or directional mole thrusting beneath structural roots.

4. ARBORICULTURAL METHOD STATEMENT (AMS)

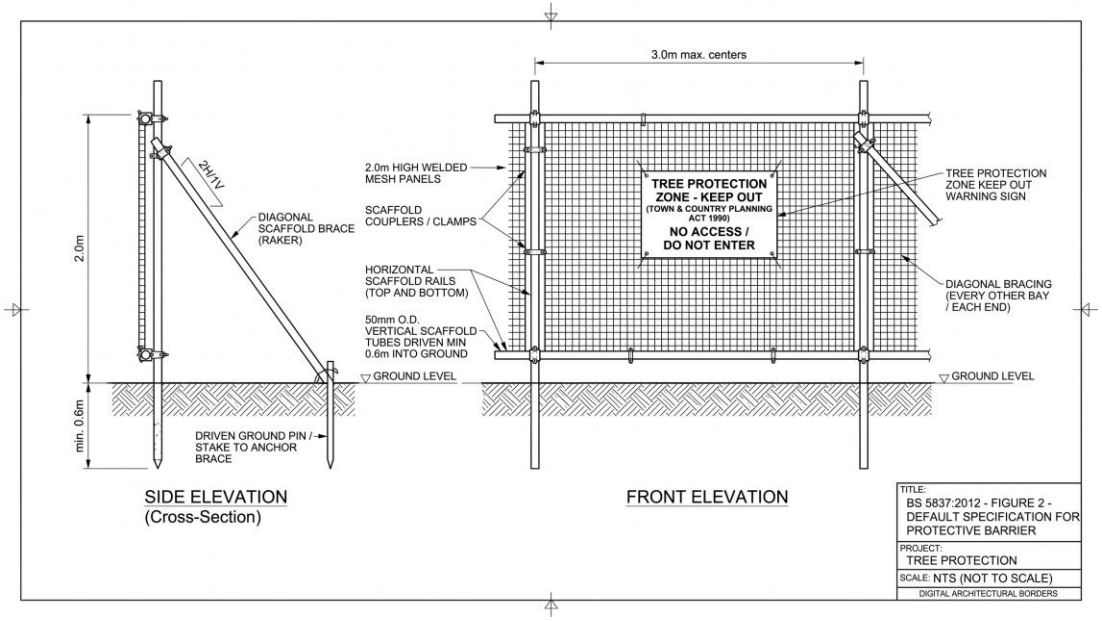
BS 5837:2012 FIGURE 2 DEFAULT SCAFFOLD-BRACED PROTECTIVE BARRIER

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2.0m WELDED MESH PANELS (HERAS TYPE)

(Secured with Anti-Tamper Scaffold Couplers)

[HIGH-VISIBILITY NOTICE]: "TREE PROTECTION ZONE - DO NOT ENTER"



4.1 Construction Exclusion Zone (CEZ) & Barrier Specification

6. Timing & Pre-Commencement Inspection: The CEZ must be established and fully fenced prior to any plant machinery, skips, or building materials entering the site. The barrier must remain in place until all construction trades have vacated.
7. Physical Specification (BS 5837:2012 Figure 2):

- Upright scaffold poles (48 mm diameter) driven vertically into the earth to a minimum depth of 0.6 m at maximum 3.0 m centres.
- Horizontal scaffold rails securely clamped with standard double couplers.
- Welded steel mesh panels (2.0 m height) clamped to the framework with anti-tamper couplers.
- Diagonal scaffold rakers braced back onto the construction side and anchored with driven steel ground pins.
- Loose surface rubber or concrete support blocks are strictly prohibited.

8. Alignment: Erected along the exact dashed line shown on Drawing 581-01-106P:

- T2 Exclusion: 3.72 m radius buffer.
- T3 Exclusion: 3.72 m offset securing soft landscape buffer.
- T4 Exclusion: Offset along the NW boundary at 5.40 m.

9. Signage: Rigid, weatherproof A3-sized notices must be fixed every 6.0 m along the fencing: "TREE PROTECTION AREA – KEEP OUT. NO STORAGE, VEHICULAR ACCESS, EXCAVATION OR WASHING DOWN PERMITTED."

4.2 Temporary Ground Protection System Specification

Where site access routes cross the outer root protection zones of T2 and T3 (as delineated on Drawing 581-01-106P), ground protection must be laid prior to any vehicular movements:

10. Separation Membrane: Lay an unbroken layer of non-woven geotextile membrane (e.g., Terram 1000) directly over undisturbed ground.
11. Cushioning Sub-Base: Spread a continuous 100 mm layer of compressible woodchip mulch or clean dry sand.
12. Load-Spreading Deck: Place interlocking heavy-duty ground protection mats (e.g., Ground-Guards, TuffTrak) or 22 mm exterior-grade plywood on a timber sub-frame, capable of evenly distributing axle loadings up to 10 tonnes without soil shear.

4.3 Demolition & Structural Repair Protocols

13. Garage Superstructure Dismantling:

- In strict accordance with Drawing 581-01-106P, demolition of the single-storey garage adjacent to T3 must proceed using non-impact hand tools.
- Work must be executed top-down, hand-dismantling roof tiles, rafters, and masonry courses inward away from T3.
- Heavy excavator-mounted breakers (peckers) are strictly prohibited within 3.72 m of T3.

14. Boundary Wall Repair:

- The front retaining wall must be repaired using manual non-impact hand tools.
- Hand raking of mortar beds and lime-mortar rebuilding will prevent dynamic shock waves through the root systems of T2.

15. Tree T1 Removal:

- T1 must be dismantled in sections by a qualified arboricultural contractor operating to BS 3998:2010.
- Lower trunk sections must be cut flush to ground level. Stumps within 1.0 m of the wall must be removed using a pedestrian stump grinder (depth limited to 200 mm) or treated with arboricultural eco-plugs. Stumps must not be ripped out with backhoes or winches.

16. Root Pruning Parameters (BS 5837 Clause 7.2):

- Roots encountered < 25 mm in diameter may be pruned back cleanly to sound tissue using sharp bypass secateurs or hand saws.
- Roots >= 25 mm in diameter must not be severed under any circumstances without prior written consent from the project arboriculturalist.
- Any inadvertently exposed root tissue must be wrapped in damp hessian sheeting to prevent desiccation.

4.4 Prohibitions & General Site Operations

- Material Storage: Skips, spoil, pallets of brick, sand, cement, and fuels must not be deposited inside the CEZ or within the RPA of retained trees.

- Cement Washout: Concrete wagons and mortar mixing pans must be washed out in a dedicated, watertight, bunded skip located at least 10 m away from all trees. Concrete washings must never be discharged onto ground soils.
- Bonfires: Bonfires and burning of site clearance debris are strictly prohibited.
- Service Routing: Trenching for drainage, water, gas, electricity, and telecommunications is prohibited within the RPAs unless installed by trenchless moling or pneumatic air-spade methods under NJUG Volume 4.

5. REPLACEMENT PLANTING STRATEGY (POLICY EN 9)

To compensate for the removal of Tree T1 and ensure a net positive contribution to the Albert Park Conservation Area:

17. Quantity & Species: Two (2) native heavy-standard trees will be planted:

- Tree A: Sorbus aucuparia (Rowan) – Heavy Standard (12–14 cm stem girth).
- Tree B: Betula pendula (Silver Birch) – Heavy Standard (12–14 cm stem girth).

18. Specification & Planting:

- Both specimens will be container-grown and planted in accordance with BS 8545:2014 Trees: from nursery to independence in the landscape – Recommendations.
- Trees will be secured with subterranean root-ball guying or low-level timber stakes with rubber collars, incorporating a perforated irrigation/aeration pipe around each rootball.
- Planting pits will be backfilled with high-grade topsoil (BS 3882:2015) and dressed with a 75 mm depth composted bark mulch ring (1.0 m radius).

19. Maintenance: A 5-year establishment maintenance regime (including seasonal watering, formative pruning, and mulch replenishment) will be enforced. Any failed specimen within 5 years will be replaced on a like-for-like basis.

6. PLANNING VALIDATION & AUDIT COMPLIANCE MATRIX

Council Requirement / Condition	Reference Document	Implementation Method	Compliance Status
Arboricultural Method Statement	Council Letter Item 4	Fully detailed within Section 4 of this report.	COMPLIANT
Tree Protection Plan (BS 5837)	Drawing 581-01-106P	Shows Figure 2 clamped fencing, hand-tool demolition lines, and ground protection.	COMPLIANT
Tree Retention Classifications	BS 5837 Table 1	Corrected on Drawing 581-01-106P legend (Cat A Green, Cat B Blue, Cat C Grey, Cat U Red).	COMPLIANT
Tree Losses Mitigated	MCC Policy EN 9	T1 removal justified; 2:1 native heavy-standard replacement planting committed.	COMPLIANT
Protective Barrier System	BS 5837 Figure 2	Scaffold-braced framework driven into the ground with anti-tamper couplers specified.	COMPLIANT
Access Ground Protection	BS 5837 Clause 6.2.3	Geotextile membrane + woodchip cushion +	COMPLIANT

		interlocking ground guards specified.	

ARBORICULTURAL CONSULTANT SIGN-OFF

This Arboricultural Impact Assessment and Method Statement provides the complete technical basis for determination under Application Reference PLA-2026-000452. The methodologies herein ensure the continued vitality of retained trees while facilitating the redevelopment of 15 Cresswell Grove in accordance with all statutory and local planning requirements.

- Report Status: Final Submission
- Approved by: Lead Arboricultural Consultant
- Date: 20 October 2026
- Client Document Pack: Ready for formal upload to Manchester City Council Planning Services.