ARBORICULTURAL METHOD STATEMENT to BS 5837:2012 at

Spencer House Holywell Lane Leeds LS17 8EY

Client: Moran Smart Homes Ltd.

Client Address: 1 Welburn Drive West Park Leeds West Yorkshire LS16 5QD

JCA Ref: 18091a-rev2/EW

Arboricultural & Ecological Consultants

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1. Introduction

1.1 Purpose of the Method Statement

1.1.1 This Arboricultural Method Statement has been prepared to ensure good practice in the protection of retained trees during the development at **Spencer House, Holywell Lane, Leeds.**

1.2 Terms of Reference

- 1.2.1 JCA Limited is instructed by Moran Smart Homes Ltd to prepare an Arboricultural Method Statement for the proposed development, based on our arboricultural report dated 1st February 2022 (JCA Ref: 18091/EW). The arboricultural survey and report conform to the most recent specifications outlined in BS 5837: 2012 Trees in relation to design, demolition and construction - Recommendations.
- 1.2.2 The proposals are part demolition of the existing property; conversion of garage to form a new dwelling and erection of double garage with associated landscaping to serve Spencer House.
- 1.2.3 The development layout approved by the LPA (Ref: **22/01095/FU**) has been provided by our client and is the basis for the Tree Protection Plan at **Appendix 4**.
- 1.2.4 Planning permission was granted in view of the following conditions:
 - No construction works to proceed until an arboricultural method statement is formalised and agreed upon with the Local Planning Authority.
 - The method statement shall include a detailed programme for timescales for carrying out works before, during and after the proposed development.
- 1.2.5 Therefore, planning consent is subject to this method statement being agreed upon in advance by the Local Planning Authority. The contents of this report must be adhered to, before, during, and after the construction phase.

1.3 Status of the Method Statement

- 1.3.1 This Arboricultural Method Statement should be included as part of the specification and schedule of works issued to the building contractor and can form part of the contract.
- 1.3.2 This Arboricultural Method Statement should be available on site for inspection by the local authority, contractors and other relevant persons.

2. Tree Works Prior, During and Post Construction

2.1 Tree Works Prior to Construction

- 2.1.1 Prior to any construction activity, the first operation on site will be the undertaking of the necessary arboricultural works, as described at **Appendix 1**.
- 2.1.2 The tree works include:
 - The root pruning of **G34** to facilitate the development.
- 2.1.3 For this method, the closest point of the proposed drive in relation to the trees will be marked on-site by an appointed engineer or another qualified person, using an appropriate method (e.g. temporary, biodegradable spray paint or pegs and lines). A hand-dug trench will then be excavated along this line. Any roots exposed during this operation will be cleanly severed using appropriate hand tools (e.g. sanitised hand saws or bypass secateurs).

2.2 Tree Works During Construction

- 2.2.1 No tree works are required during the construction phase.
- 2.2.2 Damage to trees during the construction phase should be entirely prevented by the installation of the temporary protective barrier (fencing and ground protection), to create a Construction Exclusion Zone (CEZ). All persons on site must be aware of limitations that apply within the CEZ (please refer to **Section 3.1.3**).
- 2.2.3 If any trees on site are damaged, this must be immediately reported to JCA to agree on appropriate remedial action. Contact numbers for all parties can be found at **Section 7**.

2.3 Tree Works Post Construction

- 2.3.1 When the construction phase is complete and when the temporary protective barrier has been removed, some minor remedial works may be required. This may be for aesthetic purposes, to give clearance for new paths or to provide ground clearance for landscaping schemes.
- 2.3.2 Any post construction remedial works must be applied for via a tree work application submitted to the Local Planning Authority.

2.4 Recommendations For Tree Works

2.4.1 All work must be undertaken to BS 3998: 2010 - *Recommendations for tree work* and carried out by qualified, experienced and, ideally, Arboricultural Association approved contractors who must be adequately insured.

- 2.4.2 Any defects seen by a contractor or the client that were not apparent to the consultant must be brought to the attention of JCA immediately.
- 2.4.3 No liability can be accepted by JCA in respect of the trees unless the recommendations of this Method Statement are carried out under our supervision.

3. The Protective Barrier Prior, During and Post Construction

3.1 **Protective Barrier Prior to Construction**

- 3.1.1 The installation of the temporary protective barrier will be the very first job to be undertaken on site following the completion of the tree works (Section 2.1). This barrier will comprise of protective fencing as detailed below.
- 3.1.2 The protective fencing must be constructed in accordance with BS 5837: 2012 *Trees in relation to design, demolition and construction Recommendations* and will be located as shown on the Tree Protection Plan at **Appendix 4**. Where possible, the protective barrier will enclose the entire Root Protection Area (RPA) of the trees to make a Construction Exclusion Zone (CEZ); this area is to be considered a restricted area; no pedestrians, vehicles, equipment or machinery are allowed within the CEZ and the storage of materials is not permitted, unless specified within this Method Statement.
- 3.1.3 The protective fencing will be installed in accordance with BS 5837: 2012 and will comprise of a vertical and horizontal scaffold framework, well braced to resist impacts. The vertical tubes should be spaced at a maximum interval of 3m and driven securely into the ground, taking care to avoid underground services and structural roots. Finally, weld mesh panels are to be securely fixed on the scaffold framework. Please refer to **Appendix 2 (Fig 1)** for protective fencing details.
- 3.1.4 Once the fencing is installed, waterproof signs with the sentence '*Protected tree zone*, *no storage or operations within this area*' are to be placed at 3m intervals to ensure that all personnel are aware of the restrictions that apply to the cordoned off area. A prepared sign is available at **Appendix 2**.
- 3.1.5 Fencing to the north is already in place in line with the approved and enacted application 18_02580_FU. This existing fencing is shown in pink on the plan at **Appendix 4**. This shall remain in place during the development of the southern section, or until the dwellings to the north are occupied, and therefore access by construction vehicles will not be an issue.

3.2 Checking the Protective Fencing Prior to Construction

- 3.2.1 Once installed, the appointed arboriculturalist will be invited on site to inspect the protective fencing, ensuring that it is located in the correct position and that it has been constructed in accordance with this Method Statement. No other work, including soil stripping, excavation, or the bringing onto site of materials or machinery, shall commence until the barrier is installed and confirmed to be acceptable by the appointed arboriculturalist.
- 3.2.2 It is important that the protective fencing, be checked by the arboricultural consultant prior to any construction works being carried out on site. If at any time during construction the protective fencing is not correctly installed, or if it does not comply with BS 5837: 2012, this could result in damage being caused to trees and consequently, a stop notice may be served by the LPA.

3.3 **Protective Barrier During Construction**

- 3.3.1 No operations shall take place which require the removal of part of the protective barrier without prior agreement with the Local Planning Authority.
- 3.3.2 The protective barrier must be inspected for faults or damage by the site manager or other responsible named person on a regular basis and a written record kept. Any faults or defects must be repaired or replaced as soon as is reasonably practicable. Details of the site manager and relevant contact details can be found at **Section 7**.

3.4 Removal of the Protective Barrier

- 3.5.1 When the development phase is complete and the main site machinery has been removed, the protective barrier may be dismantled and removed from site.
- 3.5.2 It should be noted the same restrictions apply to all RPAs as the CEZ (please refer to **Section 3.1.2**).

4. Demolition Phase / Construction Phase

4.1 Demolition Works

4.1.1 In this case, no demolition works are required adjacent to retained trees. Providing that the protective barrier is installed correctly and prior to the commencement of demolition/construction, no further actions are required to prevent foreseeable damage to these trees. See **Section 3** for further details regarding the protective barrier.

4.2 Ground Level Changes

4.2.1 No ground level changes are required within the RPA of any tree to be retained on this site. As such no mitigation actions are considered necessary.

4.3 Construction of Hard Surfaces

4.3.1 Proposed hard surfaces are located within the calculated RPA of **G34**. In this case, the hard surfaces only encroach into RPA minimally and as such no specialist construction detail will be required. However, root pruning will be carried out under arboricultural supervision to prevent any 'ripping' damage, a problem associated with mechanical excavations. See **Section 2.1** for more details.

4.4 Construction of New Buildings

4.4.1 The proposed buildings are located at a sufficient distance from retained trees that no specialist foundation methods are required for arboricultural purposes.

4.5 Excavations and Services

- 4.5.1 Precise details on service routes are not available at this time. As such, no provision for the routing of utilities within the RPAs is made within the scope of this report.
- 4.5.2 All utilities should ideally be located outside the RPA of retained trees; this should be achievable as the trees to be retained are located around the site periphery.
- 4.5.3 If, for whatever reason, incursions into the RPAs are considered unavoidable, the consulting arboriculturalist and/or the LPA must be consulted immediately, to prevent a breach of planning conditions and/or damage to retained trees.
- 4.5.4 Guidance and methodologies on the installation of underground services whilst minimising damage to tree roots is provided at **Appendix 3**.

4.6 Location of the Site Compound

- 4.6.1 The site compound, typically including the site office, mess facilities, toilets, storage of materials and parking, must be located away from, and outside the RPA of retained trees.
- 4.6.2 Those areas designated for the storage and/or mixing of chemicals, including petrol, diesel and oils must also be located away from, and outside the RPA of retained trees. Such areas should be constructed with consideration to, and contingencies for, the occurrence of spillages, preventing the leaching of chemicals into unprotected, open ground.

5. Post Construction Phase

5.1 Post Construction Landscaping

- 5.1.1 Following completion of the main construction phase, the protective fencing may be removed and the landscaping phase can commence.
- 5.1.2 The proposals include for the installation of wooden boundary fences and gate posts. Where these are located within the RPA of retained trees, post holes will be dug by hand and they are to be as small as practically possible. They may be driven in either by hand or using mechanical means. However, if construction plant is to be used, it must work from outside of the RPA at all times.
- 5.1.3 The retained trees on site may be subject to some form of landscaping or seeding beneath their canopies after the development phase. At this stage the protective barrier will have been removed and the property may be occupied.
- 5.1.4 Landscaping works must be carried out in such a way as to avoid ground level changes or deep digging within RPAs. Tractor mounted rotovation or other mechanised cultivation methods must not be used within the RPAs of retained trees.
- 5.1.5 Heavy machinery is not permitted in the vicinity of retained trees, unless otherwise stated in this method statement.
- 5.1.6 Herbicides should be appropriate for the purpose and should not be used in such a way as to damage any retained trees or vegetation.

5.2 Tree Planting Scheme

5.2.1 The planting of trees may go ahead in the first tree planting period after construction is complete.

6. Timescale of Works

0.1 The unrescute for all officiation requirements is summation of the
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Timescale	Action	\checkmark	Initial
Stage 1	All requirements listed in the planning consent are approved by the Local Authority planning office.		
Stage 2	Undertake the tree works (as detailed at Appendix 1). Arboricultural Supervision Required		
Stage 3	Install the temporary protective fencing around the trees (as detailed at Appendix 2 and as shown on the Tree Protection Plan at Appendix 4) – Tree protection marked on the plan in pink will be retained in place from the 2018 plannignpermission.		
Stage 4	 Have the Arboricultural Consultant inspect the fencing measures prior to any on site construction. Once inspected, the protective fencing must not to be moved or breached. 		
Stage 5	Undertake the demolition of the existing structures.		
Stage 6	Undertake the construction of the new building.		
Stage 7	Undertake the Tree Planting Scheme.		

7. Relevant Contact Details

Contact Name	Organisation/Detail	Contact Number
Emily Wilde Arboricultural Consultant	JCA Limited	01422 376335
LCC Landscape Team	Leeds City Council	01132 478149
TBC Site Manager	TBC	TBC

Appendices

Tree Ref.	Age Common Name Botanical Name					Crown Spread N W E S	Observations	Recommendations Priority				• • • • • • • • • • • • • • • • • • •		
Trees T ¹	Frees T1-T14 All tree work in line with approved and enacted application 18_02580_FU. Tree protection to remain in place during this developmet phase, or until buildings to the north are occupied and therfore access by construction vehicles will not be an issue.													
T 15	Semi-mature Scots Pine Pinus sylvestris	11	1	1.7 S	25	2.5 2.5 2 2.5	Single-stemmed and vertical with a balanced crown. Located 3m away from the main dwelling. The stem leans from the base and straightens further up.	No action required.	GOOD	GOOD	MOD	MOD	40+	B 2
T 16	Mature Norway Maple Acer platanoides	12	2	1 W	56	7 6 6 6#	Multi-stemmed at 2m with a balanced crown overhanging the boundary, footpath and road. Girdled root (east) which has been cut.	No action required.	GOOD	GOOD	HIGH	MOD	≥40	A 1
G 17	Semi-mature Mixed Species See observations	7	0	n/a n/a	To 12	See plan	Whitebeam and Prunus sp. Pruning wounds noted and suppressed growth.	No action required.	FAIR	FAIR	LOW	MOD	≥20	C 2
T 18	Mature Scots Pine Pinus sylvestris	16	0.5	3 NW	60	5.5 4 5.5 4.5	Single-stemmed with a slight lean and a balanced crown.	No action required.	GOOD	GOOD	HIGH	MOD	≥40	B 1
T 19	Semi-mature European Larch Larix decidua	11	3	3 n/a	30	4 1 4 2	Single-stemmed with a slight lean and an unbalanced crown.	No action required.	GOOD	GOOD	MOD	MOD	≥40	B 2
T 20	Semi-mature Whitebeam Sorbus aria	6.5	2.5	2.5 N	22	1 2 1.5 2.5	Multi-stemmed at 1.5m with a slightly unbalanced crown overhanging the boundary and footpath.	No action required.	FAIR	FAIR	LOW	MOD	≥40	C 2
G 21	Semi-mature Beech Fagus sylvatica	8	3	2 S	To 25	See plan	3 Trees slightly suppressed by G22. Larger trees within this group have good future amenity potential and are visible from the road.	No action required.	GOOD	GOOD	MOD	MOD	≥40	B 2
G 22	Early-mature Leylandii X Cupressocyparis leylandii	To 12	2	n/a n/a	To 50	See plan	6 Trees. Species include Leylandii and Lawsons Cypress. Some snapped out limbs noted. Trees contribute towards the boundary screening.	No action required.	GOOD	FAIR	MOD	HIGH	≥40	C 2
G 23	Early-mature Mixed Conifer See observations	Group has been removed												

Tree	Age Common Name				-	Crown Spread N	Observations	Recommendations					- -	
NGI.	Botanical Name	-				W E S		Priority				- • • •	1	R + 1 + 1 + 0
	Early-mature			25		3								
T 24	Holly	8	0	2.5	34	3 3	balanced crown. Kinked stem noted.	Crown lift to a height of 3m.	GOOD	GOOD	HIGH	LOW	≥40	B 2
	llex aquifolium			S		3								
	Early-mature			1		2.5	Single stammed and vertical with							
T 25	Lawson Cypress	8	0	1	33	2 2.5	a balanced crown. Compression	No action required.	GOOD	GOOD	HIGH	HIGH	≥40	B 2
	Chamaecyparis lawsoniana		w	2.5	TOIR dt 1.5m.									
	Early-mature			17		2	Single-stemmed and vertical with							
T 26	Scots Pine	12	2	1.7	34	3.5 2.5	a balanced crown overhanging boundary and footpath. Dead	No action required.	GOOD	GOOD	HIGH	MOD	≥40	B 2
	Pinus sylvestris			E		3.5	branches in the lower canopy.							
	Early-mature			3		2.5	Single-stemmed with a slight							
T 27	Scots Pine	13	3	5	30	1.5 3	lean and a reasonably balanced crown.	No action required.	GOOD	GOOD	HIGH	MOD	≥40	B 2
	Scots Pine			W		1								
G 28	Young			n/a			Multi-stemmed at ground level with a balanced crown. Species include Wild Cherry and			FAIR	LOW	MOD	≥40	
	Mixed Species	To 6	n/a	110	То 12	See plan		No action required.	GOOD					C 2
	See observations			n/a			Sycamore.							
	Young			2.5		1.5								
T 29	Leylandii	8	2.5		19	1 2	a slightly unbalanced crown.	No action required.	FAIR	GOOD	LOW	HIGH	≥40	C 2
	X Cupressocyparis leylandii			n/a		1	Sparse lower carlopy.							
	Mature					2.5	Multi-stemmed at 1.5m with a							
T 30	Hawthorn	7.5	2.5	2	35	2.5 3	slightly unbalanced crown. Branch stubs (North and West)	No action required.	FAIR	FAIR	MOD	HIGH	≥20	C 2
	Crataegus monogyna			W		3.5	with decay initiated.							
	Early-mature					2#								
T 31	Laburnum	7	6	n/a	22	2# 2#	a balanced crown. Pruned stems	No action required.	GOOD	POOR	LOW	LOW	≥10	C 2
	Laburnum anagyroides			n/a		2#	are dying back.							
	Early-mature					6.5	Multi-stemmed at ground level							
T 32	Laburnum	7	1.5	1.5	16 19	6.5 4	with a balanced crown. Ivy present at base. Pruning cuts	No action required.	FAIR	FAIR	MOD	LOW	≥20	C. 2
	Laburnum				20 22		(east) which have not been cut to British Standard 3998. Small	. 1						
	anagyroides			W		6#	cavity (edst) at TITI.							
	Semi-mature			n/a		2.5	Single-stemmed with a slight							
T 33	Lawson Cypress	8	0		23	2.5 1.5	lean and a reasonably balanced crown.	No action required.	GOOD	GOOD	LOW	HIGH	≥40	C 2
	lawsoniana			n/a		2								

Tree Ref.	Age Common Name Botanical Name					Crown Spread N W E S	Observations	Recommendations Priority						
G 34	Early-mature Leylandii X Cupressocyparis leylandii	3	0.5	n/a n/a	то 47	See plan	Boundary trees which have been topped and trimmed.	Root prune under arboricultural supervision to facilitate the development.	GOOD	GOOD	MOD	HIGH	≥40	C 2
T 35	Early-mature Cherry Laurel Prunus laurocerasus	5.5	0.5	n/a n/a	4 x 14	4 3 5 2	Multi-stemmed at ground level with a slightly unbalanced crown overhanging boundary.	No action required.	GOOD	GOOD	LOW	MOD	≥20	C 2
T 36	Semi-mature Beech Fagus sylvatica	14	0	1.5 N	31	6 3 2.5 2	Single-stemmed and vertical with an unbalanced crown. Potential to be a good specimen as it matures.	No action required.	GOOD	GOOD	MOD	MOD	≥40	B 2
	Trees T37 to T64 All tree work in line with approved and enacted application 18_02580_FU													

Appendix 2: Protective Barrier

A2.1 The protective barrier will be installed in accordance with BS5837: 2012. The default specification of BS 5837: 2012 (pictured below for reference) recommends a vertical and horizontal, scaffold framework, well braced to resist impacts, with vertical tubes at no more than 3m intervals. These should be driven into the ground. Weld mesh panels should be affixed to this framework with scaffold clamps - See Figure 1.



Figure 1: 'Protective Barrier to BS 5837: 2012'. To be used where situated in open ground.

TREE PROTECTION ZONE KEEP OUT!

TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY STRICT PLANNING CONDITIONS

ANY DAMAGE CAUSED TO THESE TREES MAY RESULT IN <u>CRIMINAL PROSECUTION</u>

RESTRICTED AREA:

- THE PROTECTIVE FENCE MUST NOT BE MOVED OR BREACHED
- NO PERSON, MACHINERY, VEHICLE OR PLANT IS PERMITTED WITHIN THE TREE PROTECTION ZONE
- NO MATERIALS SHALL BE STORED WITHIN THE TREE PROTECTION ZONE
- NO EXCAVATIONS ARE PERMITTED WITHIN THE TREE PROTECTION ZONE
- NO SPOIL IS TO BE DEPOSITED WITHIN THE TREE PROTECTION ZONE
- NO FIRES ARE TO BE LIT WITHIN THE TREE PROTECTION ZONE

REPORT TREE DAMAGE TO JCA LIMITED ON 01422 376 335

Appendix 3: Utilities and Drainage

- A3.1 Over-ground services should be routed away from areas where they are likely to interfere with the crowns of trees. Similarly any landscaping should take account of over-ground services and mature tree size.
- A3.2 Underground services must be routed outside the RPA of retained trees, unless otherwise specified within this report. NJUG Volume 4 Issue 2 (on the next page) is a set of accepted guidelines for installing services in the proximity of trees. Please note that this is not a substitute for site-specific advice by an arboriculturalist and consultation should be made wherever incursions of RPAs are envisaged. The contents of this report, specifically **Section 4.5**, supersede the set of guidelines on the next page, which are only included for reference.



NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees - Issue 2



TREE PROTECTION ZONE

Key to Diagram



Trunk of Tree



Spread of canopy or branches



PROHIBITED ZONE – 1m from trunk. Excavations of any kind must not be undertaken within this zone unless full consultation with Local Authority Tree Officer is undertaken. Materials, plant and spoil must not be stored within this zone.

PRECAUTIONARY ZONE – 4 x tree circumference. Where excavations must be undertaken within this zone the use of mechanical excavation plant should be prohibited. Precautions should be undertaken to protect any exposed roots. Materials, plant and spoil should not be stored within this zone. Consult with Local Authority Tree Officer if in any doubt.



PERMITTED ZONE – **outside of precautionary zone**. Excavation works may be undertaken within this zone however caution must be applied and the use of mechanical plant limited. Any exposed roots should be protected.



I hope that this report provides all the necessary information, but should any further advice be needed please do not hesitate to contact the author.



Emily Wilde FdSc (Arboriculture).

 20^{th} June 2023 (Revision 1 - 17^{th} August 2023 Revision 2 - 4^{th} January 2024)

For and on behalf of JCA Ltd

Registered Office:

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JCA Ltd. Arboricultural and Ecological Consultants Professional Tree and Ecology Advice nationwide

ARBORICULTURAL SERVICES

Guidance for Architects and Developers

- British Standard 5837 Tree Surveys
- \bullet Arboricultural Implication Assessments (AIA)
- \bullet Arboricultural Method Statements (AMS)

Tree Advice for the Legal Profession

- Subsidence Litigation
- Personal Injury and Accident Investigation
- Expert Witness, Planning Inquiries and Appeals

Advice for Engineers, Loss Adjusters and Insurers

- Tree Surveys for Subsidence
- Heave Assessment
- Tree Root Identification

Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

Advice for Local Authorities and Social Housing

- Tree Safety Surveys
- Specialist Decay Detection
- Landscape and Orchard Design

Tree Health and Pest and Disease Management

- Pest and Disease Surveys
- Tree Health Checks
- Disease Mitigation and Control

ECOLOGICAL SERVICES

Ecological Pre-Planning Services

- Phase 1 Habitat Surveys
- Great Crested Newt eDNA Sampling
- Protected Species: Bat, Wintering and Nesting Bird, Badger, Amphibian, Otter, Water Vole, White-Clawed Crayfish, Dormice and Reptile Surveys.
- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes

Ecological Post-Planning Services

- · Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)

HEAD QUARTERS:

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