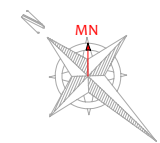


Sample ID	C-Code	Age Group	Age & Species		Height (m)	Crown (m)	Diameter (cm)	Crown Spread (m)		Soil Bed Type	Diagrams (m)	Notes	Recommendations		Year	Assess	Risk
			Height (m)	Species				W	E				Priority	Impact			
T1	Mature	London Plane	Platanus x hispanica	21	8	11	55	5	5		Form: Multi-stemmed at 1m with a balanced crown. Maintained by cyclical pollarding. No significant defects observed. Rooted with adjacent to the tree are being displaced.	No action required.	Good	40+	B+		
																Defects: None	
																Other: None	
T2	Semi-Mature	Honey Locust	Gleditsia inaequalis	10	4	15	3	4		Form: Single stemmed with a slight lean and a slightly unbalanced crown. No evidence of significant pruning. No significant defects observed. Vegetation prevented detailed inspection. Limited inspection, dimensions estimated.	No action required.	Good	40+	C			
															Defects: None		
															Other: None		
T3	Semi-Mature	Honey Locust	Gleditsia inaequalis	15	7	17	4	6		Form: Single stemmed with a slight lean and a slightly unbalanced crown. No evidence of significant pruning. No significant defects observed. Vegetation prevented detailed inspection. Limited inspection, dimensions estimated.	No action required.	Good	40+	B-			
															Defects: None		
															Other: None		
T4	Semi-Mature	Honey Locust	Gleditsia inaequalis	15	5	15	3	2		Problem: Skewed on third party land. Single stemmed with a slight lean and a slightly unbalanced crown. No evidence of significant pruning. No significant defects observed. Vegetation prevented detailed inspection. Limited inspection, dimensions estimated.	No action required.	Good	40+	B-			
															Defects: None		
															Other: None		
T5	Semi-Mature	New Zealand Broadleaf	Grisebala littoralis	6.5	2	14	45	6.5		Form: Single stemmed and leaning with an unbalanced crown. No evidence of significant pruning. No significant defects observed. Laying on the thicker stem.	No action required.	Moderate	Low	40+	C		
																Defects: None	
																Other: None	
T6	Mature	Purple Plum	Prunus sp.	6	2	19	45	2.5		Form: Multi-stemmed at 1m with a slightly unbalanced crown. No evidence of significant pruning. No significant defects observed. Recorded stem diameter is equivalent for three stems (5cm, 8cm, 8cm).	No action required.	Moderate	Low	40+	C		
																Defects: None	
																Other: None	
T7	Early Mature	Lime	Tilia sp.	16	5	34	35	3		Form: Single stemmed and vertical with a balanced crown. Maintained by cyclical pollarding. No significant defects observed. Vegetation prevented detailed inspection.	No action required.	Good	40+	B			
															Defects: None		
															Other: None		
T8	Early Mature	London Plane	Platanus x hispanica	22	4	28	12	8.5		Form: Single stemmed with a slight lean and a balanced crown. Reduced in the east side. No significant defects observed.	No action required.	Good	40+	B			
															Defects: None		
															Other: None		
T9	Mature	Cherry	Prunus sp.	8	3	18	6	6.5		Problem: Skewed on third party land. Single stemmed with a slight lean and a slightly unbalanced crown. No evidence of significant pruning. No significant defects observed. Vegetation prevented detailed inspection. Recorded stem diameter is equivalent for two stems estimated at 10cm.	No action required.	Moderate	Low	20-40	C+		
																Defects: None	
																Other: None	
T10	Early Mature	Laural	Pernettia laurata	6	0	14	5	3		Form: Single stemmed and vertical with a slightly unbalanced crown. No evidence of significant pruning. No significant defects observed. Vegetation prevented detailed inspection.	No action required.	Good	40+	C			
															Defects: None		
															Other: None		
T11	Semi-Mature	Hornbeam	Carpinus betulus	10	4	18	5	5		Problem: Skewed on third party land. Twin stemmed at 1m with a balanced crown. No evidence of significant pruning. No significant defects observed (low target accuracy). Vegetation prevented detailed inspection. Limited inspection, dimensions estimated.	No action required.	Good	40+	B-			
															Defects: None		
															Other: None		
T12	Mature	Cherry	Prunus sp.	11	6	35	3	3		Problem: Skewed on third party land. Single stemmed and leaning with a slightly unbalanced crown. No evidence of significant pruning. No significant defects observed. Vegetation prevented detailed inspection. Limited inspection, dimensions estimated.	No action required.	Good	20-40	B-			
															Defects: None		
															Other: None		
T13	Early Mature	Lime	Tilia sp.	14	10	39	3	4		Form: Single stemmed at 1m with a balanced crown. Managed cyclical pollard. No significant defects observed. Rooted due to historic ground level and acceptable canopy present due to historic reduction in canopy.	Monitor.	Fair	10-20	Poor			
															Defects: None		
															Other: None		
G14	Early Mature	Sycamore	Acer pseudoplatanus	2v	2v	13	6	52	6		Problem: Skewed on third party land. Row of three close growing specimens. No evidence of significant pruning. No significant defects observed. Limited inspection, dimensions estimated.	No action required.	Good	40+	B+		
																Defects: None	
																Other: None	
G15	Early Mature	Sycamore	Acer pseudoplatanus	2v	2v	13	43	5	6		Problem: Skewed on third party land. Row of four close growing specimens. No evidence of significant pruning. No significant defects observed. Limited inspection, dimensions estimated.	No action required.	Good	40+	B+		
																Defects: None	
																Other: None	
T16	Sycamore	Acer pseudoplatanus	Early Mature	13	5	55	7	4.5		Problem: Skewed on third party land. Single stemmed and vertical with a balanced crown. No evidence of significant pruning. No significant defects observed. Limited inspection, dimensions estimated.	No action required.	Good	40+	B			
															Defects: None		
															Other: None		
G17	Semi-Mature	Silver Birch	Betula pendula	2v													



<h1>Tree Constraints Plan</h1> <p>Status: Final</p>	 <p>BS 5837 Root Protection Area (radius = 12xstem diameter)</p> <p>Root Protection Area needing amendment due to site conditions, e.g. presence of existing road or building.</p> <p>Root Protection Area having been amended to account for for site conditions</p>
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MN = Measured North:

Canopy spreads are sometimes measured to an approximate N defined by site features.

Often more accurate, especially where rows of trees are not aligned N-S or E-W.

T19	Sycamore	10	6.8	147	12.1
T20	Cotoneaster	4.5	1.4	7	2.6
T21	Cotoneaster	6	2.5	20	4.5
T22	Cherry	9.5	2.5	20	4.5
G23	Mixed	5	1.8	10	3.2
T24	Oak	16	10.9	375	19.4
T25	Lime	14	4.9	76	8.7
G26	Japanese Maple	5	1.3	5	2.3
T27	London Plane	28	13.2	547	23.4
T28	Hawthorn	6.5	1.8	10	3.2

Overview

It is proposed to extend the rear terrace and construct a new garage to the South of the dwelling, as indicated on the drawings in Appendix 4. The existing layout is indicated in black, the structures to be demolished are indicated in blue, and the footprint of the proposed layout is indicated in red.

The table below summarises the potential impact on trees due to various activities.

Activity	Trees Potentially Affected
Tree Removal: Retention Category A	None
Tree Removal: Retention Category B	None
Tree Removal: Retention Category C	T5, T6, the 4m tall acer and the 5m tall apple.
Tree Removal: Retention Category U	None
Tree Pruning	None
RPA: Garage Foundations	T1, T3, T7 and T8
RPA: Air Source Heat Pump	T1 and T8
RPA: Timber Fence Foundations	T1, T7 and T8
RPA: Terrace Extension	G18 and T19
RPA: New Hard Surface	None
RPA: Underground Services	None Anticipated
RPA: Change of Ground Levels	None
RPA: Soil Compaction	Trees adjacent the construction area (preventable by installing tree protection measures)

Other potentially damaging activities often associated with construction sites include demolition or the careless use of plant machinery, hazardous materials, or fires. All of the above potential impacts are considered in detail throughout this Section.

Tree Removal

To enable the development, it is proposed to remove four Retention Category C trees. The trees to be removed are specified in the above table.

None of these trees are considered to have significant landscape value so the impact on local amenity levels shall be minimal.

Tree Pruning

The retained tree canopies are sufficiently far from proposed building works and high over access routes so that they should not be impacted by construction activity. Consequently, no pruning works are required to enable the build.

Impact of Foundations

The table below assesses the impact of proposed foundations in Root Protection Areas:

Tree No	Nature of Foundation	Portion of RPA	Proposed Mitigation
T1 and T8	Heat Pump	Circa 3%	None (impact shall be minimal)
G18 and T19	Terrace Extension	Circa 5%	Hand-Dig Method <ul style="list-style-type: none">In the direction of the trees, excavation not to exceed 250mm beyond the build-line.Hand tools to be used to a depth of 600mm.Plant machinery may be used at deeper depths.Operation to be supervised by the project arborist.Exposed roots over 25mm diameter shall be retained and protected with damp hessian if practicable, else pruned by the arborist.
T1, T3, T7 and T8	Garage	<15%	Shallow Raft or Beam Foundation Method <ul style="list-style-type: none">In the direction of the trees, excavation is not to exceed 250mm beyond the build-line.Excavation depth for raft or beam not to exceed 300mm.Hand tools to be used to excavate.Excavation to be supervised by the project arborist.Exposed roots over 25mm diameter shall be retained and protected with damp hessian if practicable, else pruned by the arborist.RC Raft or beam installed. This may be supported by narrow diameter piles (max 300mm diameter).Trial pits excavated to determine pile locations. All roots over 25mm diameter to be retained intact and pile relocated.
T1, T7 and T8	Timber Fence	Circa 1%	Trial Pit and Post Hole <ul style="list-style-type: none">Post holes not to exceed 400mm x 400mm (unlimited depth).Excavation for the post holes should be undertaken using hand tools.Roots in excess of 25mm should be retained, and the post hole relocated.Smaller roots to be neatly pruned.Post hole to be sleeved with heavy-duty bin liners to prevent leaching of cement into the soil.

These measures are in accordance with industry best practices⁴ and shall ensure minimal impact on roots.

Demolition Activities

Care is required to avoid damaging trees when removing adjacent structures. Structures must be demolished away from stems and in a manner that doesn't damage branches. Removal of underground foundations requires extra special care to avoid root damage. During the implementation of this project, the following activities require special care:

- Removal of the raised flowerbeds close to G18 – T20.
- Removal of the wall close to T7.

Impact of Retained Trees on the Development

Adequate space has been allowed between retained trees and the proposal. Consequently, the proposal shall not result in increased pressure to remove or overly prune any of the retained trees.

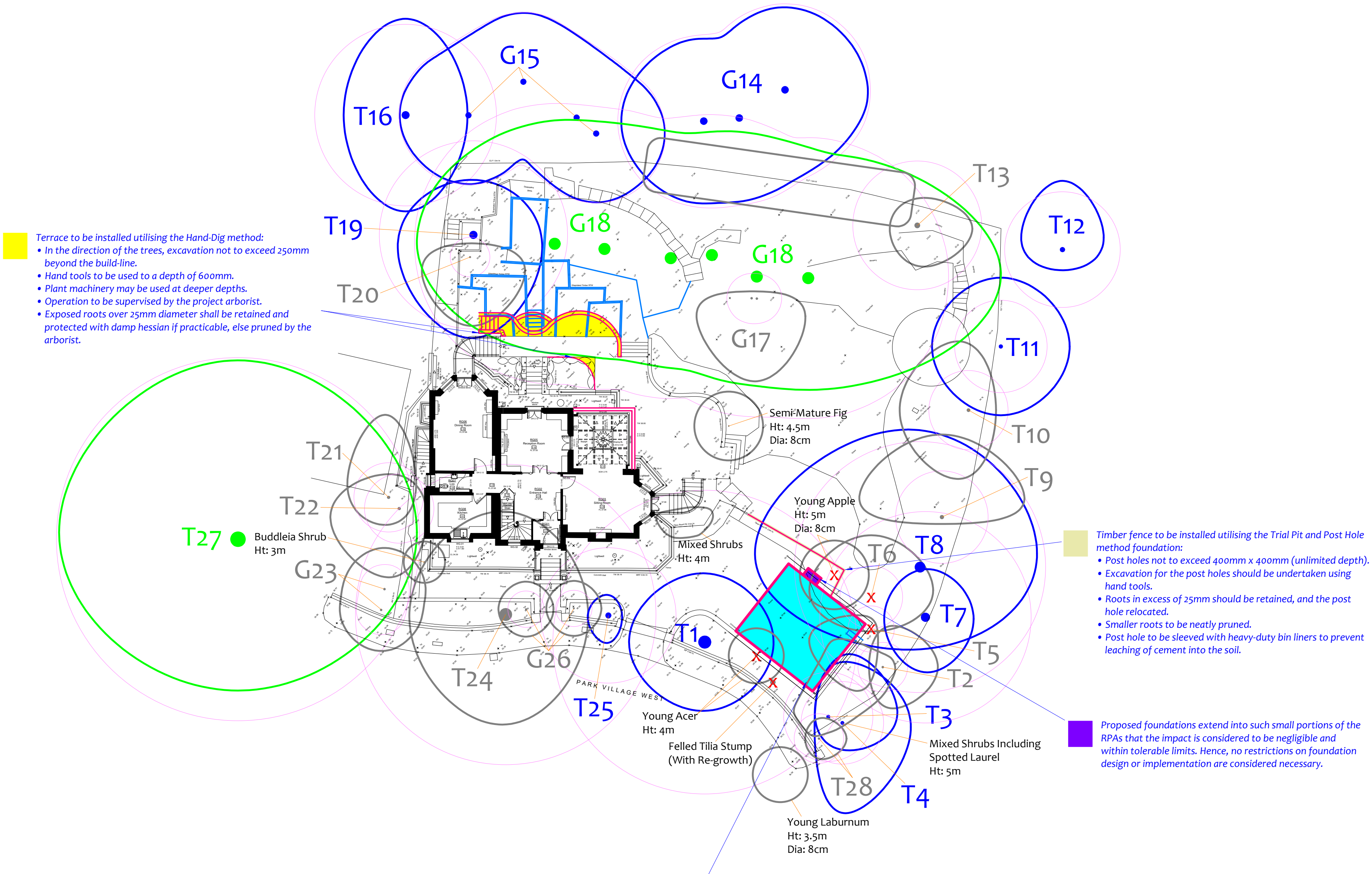
The garage is not considered to be a residential living space, so the shade cast by trees is not considered relevant from a planning perspective.

The foundations and any new surfaces should be designed to accommodate all potential impacts due to future tree-rooting activity. These include potential vegetation-related subsidence, vegetation-related heave, and lifting of surfaces / light structures due to direct root pressure.

Arboricultural Method Statement

BS 5837 recommends that a detailed methodology is agreed upon in the form of an Arboricultural Method Statement, which shall ensure that trees are well protected during the construction phase. This should detail all tree protection measures and limitations on construction activity. All of the issues raised within this Impact Assessment should be covered by the Method Statement.

Proposed Layout (Pink)
To be Demolished (Blue)



Terrace to be installed utilising the Hand-Dig method:

- In the direction of the trees, excavation not to exceed 250mm beyond the build-line.
- Hand tools to be used to a depth of 600mm.
- Plant machinery may be used at deeper depths.
- Operation to be supervised by the project arborist.
- Exposed roots over 25mm diameter shall be retained and protected with damp hessian if practicable, else pruned by the arborist.

Timber fence to be installed utilising the Trial Pit and Post Hole method foundation:

- Post holes not to exceed 400mm x 400mm (unlimited depth).
- Excavation for the post holes should be undertaken using hand tools.
- Roots in excess of 25mm should be retained, and the post hole relocated.
- Smaller roots to be neatly pruned.
- Post hole to be sleeved with heavy-duty bin liners to prevent leaching of cement into the soil.

Garage to be installed utilising a shallow raft or beam foundation:

- In the direction of the trees, excavation is not to exceed 250mm beyond the build-line.
- Excavation depth for raft or beam not to exceed 300mm.
- Hand tools to be used to excavate.
- Excavation to be supervised by the project arborist.
- Exposed roots over 25mm diameter shall be retained and protected with damp hessian if practicable, else pruned by the arborist.
- RC Raft or beam installed. This may be supported by narrow diameter piles (max 300mm diameter).
- Trial pits excavated to determine pile locations. All roots over 25mm diameter to be retained intact and pile relocated.

Drawing No:	CCL 11795 / IAP Rev: 1
Title:	Impact Assessment Plan
Site:	10 Park Village West NW1 4AE
Scale:	0 5 10m 1:2300 Paper Size: A1



Tree Retention Categories	
	Category A tree
	Category B tree
	Category C tree
	Category U tree

	Trees of high quality with an estimated life expectancy of 40+ years. Usually large trees with significant presence or smaller trees with excellent form. Retention of these trees is highly desirable.
	Trees of moderate quality with a life expectancy of 20+ years. Usually maturing trees, or younger trees with good form. Retention of these trees is desirable though less than Category A trees
	Unremarkable trees of low quality and merit. Individual specimens are not considered to be a material planning consideration.
	Trees unsuitable for retention due to their very poor condition.

Impact Assessment Plan

Status: Final - for submission

	BS 5837 Root Protection Area (radius = 1xstem diameter)
	Root Protection Area needing amendment due to site conditions, e.g. presence of existing road or building.
	Root Protection Area having been amended to account for site conditions
T1 = Tree No 1	G2 = Group No 2 H3 = Hedge No 3

	Tree to be removed to facilitate the proposal
	Tree to be removed due to its low quality for site conditions
	Proposed pruning

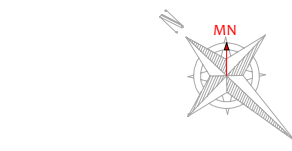
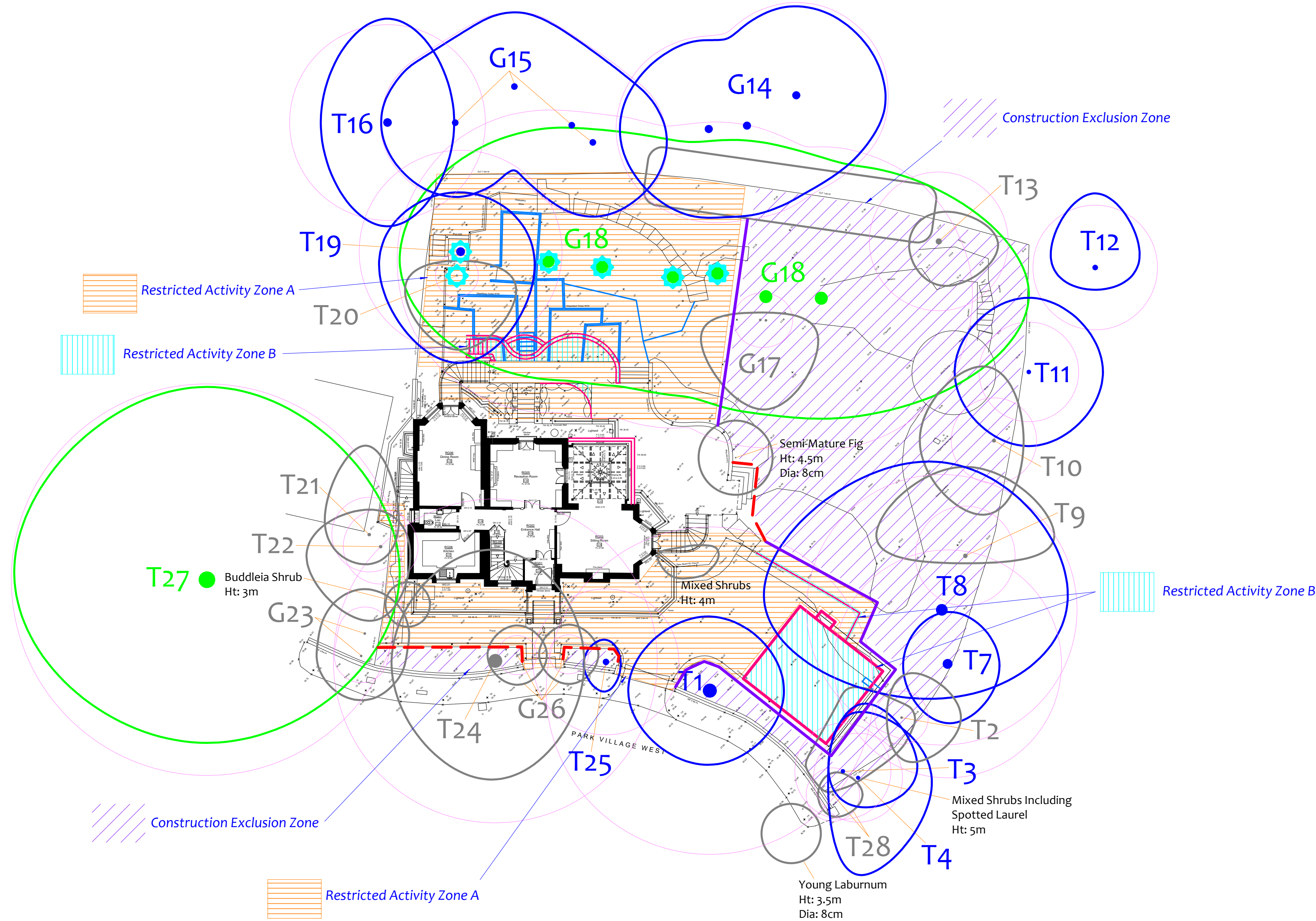
MN = Measured North:
Canopy spreads are sometimes measured to an approximate N defined by site features. Often more accurate, especially where rows of trees are not aligned N/S or E/W.

Tree Ref.	Species	Height (m)	Radius (m)	m ² Square (m)
T1	London Plane	21	11.0	383
T2	Honey-locust	10	1.8	10
T3	Honey-locust	15	3.2	33
T4	Honey-locust	15	3.0	28
T5	New Zealand Broadleaf	4.5	1.7	9
T6	Purple Plum	6	2.3	16
T7	Lime	16	7.7	185
T8	London Plane	22	9.1	261
T9	Cherry	8	3.4	35
T10	Portuguese Laurel	6	2.9	26
T11	Hornbeam	10	3.4	35
T12	Cherry	11	4.2	55
T13	Lime	14	4.7	69
G14	Sycamore	13	6.2	122
G15	Sycamore	13	5.0	80
T16	Sycamore	13	6.6	137
G17	Silver Birch	8	1.8	10
G18	London Plane	25	10.2	327
T19	Sycamore	10	6.8	147
T20	Cotoneaster	4.5	1.4	7
T21	Cotoneaster	6	2.5	20
T22	Cherry	9.5	2.5	20
G23	Mixed	5	1.8	10
T24	Oak	16	10.9	375
T25	Lime	14	4.9	76
G26	Japanese Maple	5	1.3	5
T27	London Plane	28	13.2	547
T28	Hawthorn	6.5	1.8	10

Tree Protection Plan

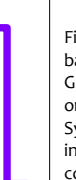

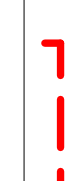
Tree Ref.	Species	Height (m)	Root Protection Area		
			Radius (m)	m ²	Circle (m)
T1	London Plane	21	11.0	383	19.6
T2	Honey-bucast	10	1.8	10	3.2
T3	Honey-bucast	15	3.2	33	5.7
T4	Honey-bucast	15	3.0	28	5.3
T5	New Zealand Broadleaf	4.5	1.7	9	3.0
T6	Purple Plum	6	2.3	16	4.0
T7	Lime	16	7.7	185	13.6
T8	London Plane	22	9.1	261	16.2
T9	Cherry	8	3.4	35	6.0
T10	Portuguese Laurel	6	2.9	26	5.1
T11	Hornbeam	10	3.4	35	6.0
T12	Cherry	11	4.2	55	7.4
T13	Lime	14	4.7	69	8.3
G14	Sycamore	13	6.2	122	11.1
G15	Sycamore	13	5.0	80	8.9
T16	Sycamore	13	6.6	137	11.7
G17	Silver Birch	8	1.8	10	3.2
G18	London Plane	25	10.2	327	18.1
T19	Sycamore	10	6.8	147	12.1
T20	Cotoneaster	4.5	1.4	7	2.6
T21	Cotoneaster	6	2.5	20	4.5
T22	Cherry	9.5	2.5	20	4.5
G23	Mixed	5	1.8	10	3.2
T24	Oak	16	10.9	375	19.4
T25	Lime	14	4.9	76	8.7
G26	Japanese Maple	5	1.3	5	2.3
T27	London Plane	28	13.2	547	23.4
T28	Hawthorn	6.5	1.8	10	3.2

Proposed Layout (Pink)
To be Demolished (Blue)

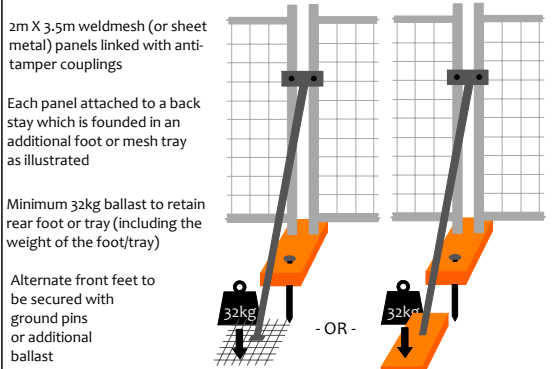


Tree Protection Plan

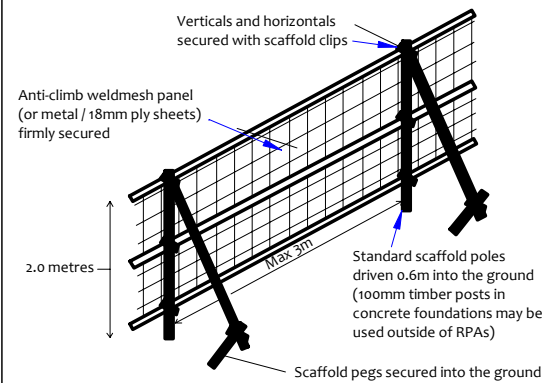
Tree Protection Barriers:

	Fixed protective barrier: The 'In-Ground System' or the 'Backstay System'. To remain in place for all construction activity		Construction Exclusion Zone Stem protected to a height of 2.5m with thick cloth & wire
	Orange Barrier Mesh Fencing, Ht 1m, on steel fencing pins and wooden posts To remain in place throughout all construction activity		

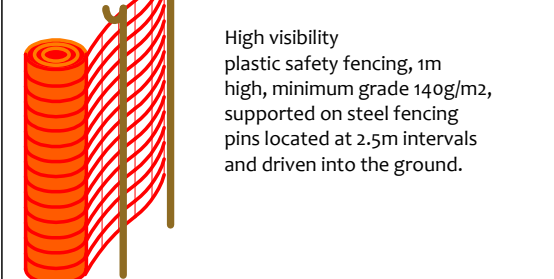
The 'Back Stay System'



The 'In-Ground' System



The Barrier Mesh System





Construction Exclusion Zone

Within this area the following restrictions shall apply:
No excavation or land regrading whatsoever.
No storage of materials, rubble, soil or spoil.
No fires within the exclusion zone or within 10m of any tree canopy.
No site cabins or other temporary structures.
No discharge of polluted water, cement or chemicals of any kind.
No use of any machinery, or passage or parking of vehicles.
No tree works without council consent.

Restricted Activity Zones

Restrictions are detailed within the accompanying Method Statement

	Restricted Zone A - Ground Protection Measures & Careful Demolition
	Restricted Zone B - Restricted Excavation

Ground Protection where specified in Restricted Zones

