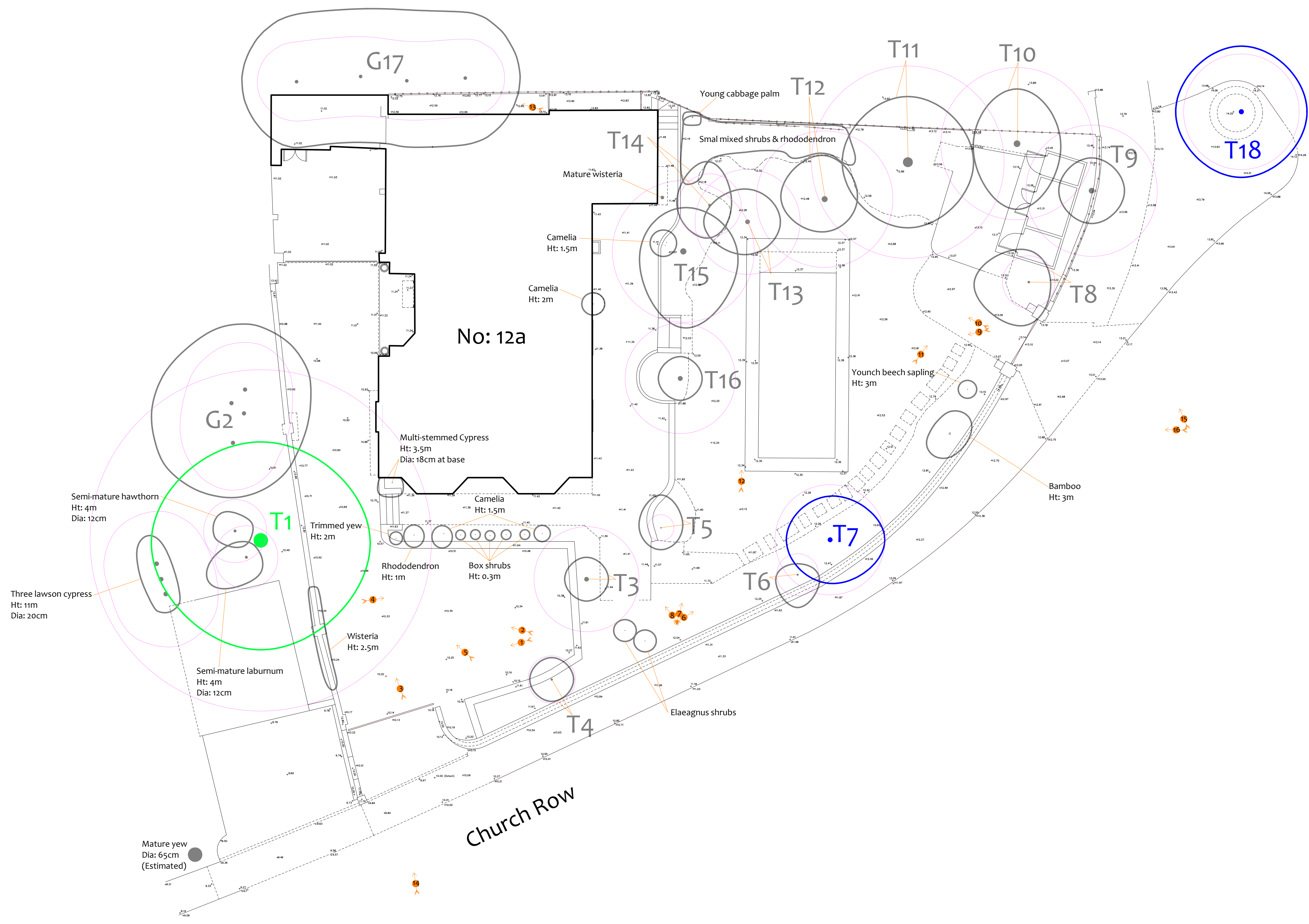


Tree Constraints Plan
(Existing Layout)



Drawing No: CCL 10999 / TCP Rev: 1
Title: Tree Constraints Plan (Existing Layout)
Site: 12a Church Row, Hampstead NW3 6UU
Scale: 1:100
Paper Size: A1

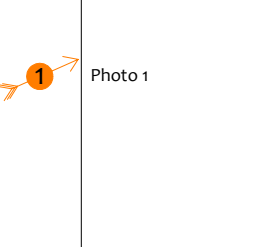


Tree Retention Categories	
Stems & canopies shown	
	Category A tree
	Category B tree
	Category C tree
	Category U tree

- 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.

Tree Constraints Plan

- 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



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)	Root Protection Area		
			Radius (m)	m ²	Square (m)
T1	Lime	12	7.8	191	13.8
G2	Himalayan Birch	6.5	2.2	15	3.8
T3	Chusan Palm	1.5	2.4	18	4.3
T4	Pittosporum	2	1.1	4	1.9
T5	Apple	3	0.6	1	1.1
T6	Holly	3.5	1.0	3	1.7
T7	Sweet Gum	6	2.5	20	4.5
T8	Japanese Maple	4	1.2	5	2.1
T9	Cherry	6	3.0	28	5.3
T10	Holly	5.5	3.5	38	6.2
T11	Yew	5	4.4	61	7.8
T12	Hornbeam	6.5	3.1	31	5.5
T13	Hornbeam	5	2.4	18	4.3
T14	Japanese Maple	4	1.4	7	2.6
T15	Cherry	4.5	3.2	33	5.7
T16	Cabbage Palm	4.5	2.5	20	4.5
G17	Hornbeam	6	1.8	10	3.2
T18	Field Maple	6	2.6	22	4.7

Overview

It is proposed that the existing dwelling be refurbished as indicated on the drawings in Appendix 4. The proposal comprises the construction of extensions to the east façade at ground floor and to the north and west façades at ground and first floor, as well as a roof extension, single-storey basement, reconstructed garden room and relocated garage. The existing layout is indicated in black, 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	T3 – T5, T8 – T10, T13 – T16, the 3.5m tall cypress and the various shrubs
Tree Removal: Retention Category U	None
Tree Pruning	G17
RPA: Extension Foundations	T1 and G17
RPA: Garden Room Foundations	T11
RPA: New Hard Surface	T1 and T11
RPA: New Soft Surface over Hard	T1 and T11
RPA: Replace Existing Hard Surface	T1
RPA: Underground Services	Unknown – To be confirmed
RPA: Change of Ground Levels	T1
RPA: Soil Compaction	Trees adjacent the construction area (preventable by installing tree protection measures)

Is proposed to prune the overhanging canopy of G17 back to the boundary to enable clearance between the proposal and the tree canopy.

Is proposed to replace an existing hard surface with soft ground over the RPAs off T1 and T2. So long as the existing surface is removed carefully, there shall be no detrimental impact. Instead, there shall be an improvement in rooting conditions, which will benefit the tree's health.

For T1, where the new extension extends over the portion of the RPA beneath the existing driveway, the following Hand-Dig method is proposed to minimise root severance:

- In the direction of the tree, 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.

The existing hard surface over the Root Protection Area of T1 and G2 may need to be replaced with a new surface. To ensure no roots are damaged, any excavation shall be limited to the removal of the existing surface and the associated sub-base. Given that the existing surface is permeable, the new surface shall also be permeable to maintain rooting conditions.

For G17, where the new extension extends over the portion of the RPA to the rear of the existing dwelling, little to no rooting activity is anticipated. This is due to the existing 1.8m tall boundary wall foundations acting as a root barrier coupled with the unlikely established root system from these relatively young specimens being capable of growing beyond the wall foundations. Consequently, no restrictions on foundation design are considered necessary here.

Tree Removal

To enable the development, it is proposed to remove eleven Retention Category C trees. However, none of these trees are considered to have significant landscape value so the impact on local amenity levels shall be minimal.

For T11, where the new garden room extends over the RPA, the following Hand-Dig method is proposed to minimise root severance:

- In the direction of the tree, 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.

It is proposed to install a new pedestrian surface over the RPA of T11. To minimise the impact on roots, the following methodology is proposed:

- A suitable load-spreading surface shall be in place at all times during demolition and construction activities.
- Only hand tools shall be used.
- Excavation shall be limited to the removal of any existing vegetation and loose topsoil to a maximum depth of 300mm.
- The finished surface shall be porous to enable the passage of oxygen and water to the soils beneath.

It is proposed to lower ground levels by up to 1m over the RPA of T1 and install a new pedestrian surface. However, given ground levels here are circa 0.7m higher than where the tree grows, and two retaining walls exist between T1 and the area to be lowered, very little rooting activity is anticipated here due to the existing foundations acting as a barrier to the roots and the anaerobic compacted soils. However, to minimise root severance, the following Hand-Dig method is proposed:

- Hand tools to be used.
- 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.
- No excavation shall occur beneath the depth of the sub-base of the adjacent driveway.
- The finished pedestrian surface shall be porous.

Drawing No:	CCL 10999	/ IAP Rev: 2
Title:	Impact Assessment Plan	
Site:	12a Church Row, Hampstead NW3 6JU	
Scale:	1:100	Paper Size: A1



Tree Retention Categories	
Stems & canopies shown	
	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 = 12xstem 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
	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)	Root Protection Area	
			Radius (m)	Area (m²)
T1	Lime	12	7.8	191
G2	Himalayan Birch	6.5	2.2	15
T3	Chinese Palm	1.5	2.4	18
T4	Pittosporum	2	1.1	4
T5	Apple	3	0.6	1
T6	Holly	3.5	1.0	3
T7	Sweet Gum	6	2.5	20
T8	Japanese Maple	4	1.2	5
T9	Cherry	6	3.0	28
T10	Holly	5.5	3.5	38
T11	Yew	5	4.4	61
T12	Hornbeam	6.5	3.1	31
T13	Hornbeam	5	2.4	18
T14	Japanese Maple	4	1.4	7
T15	Cherry	4.5	3.2	33
T16	Cabbage Palm	4.5	2.5	20
G17	Hornbeam	6	1.8	10
T18	Field Maple	6	2.6	22

