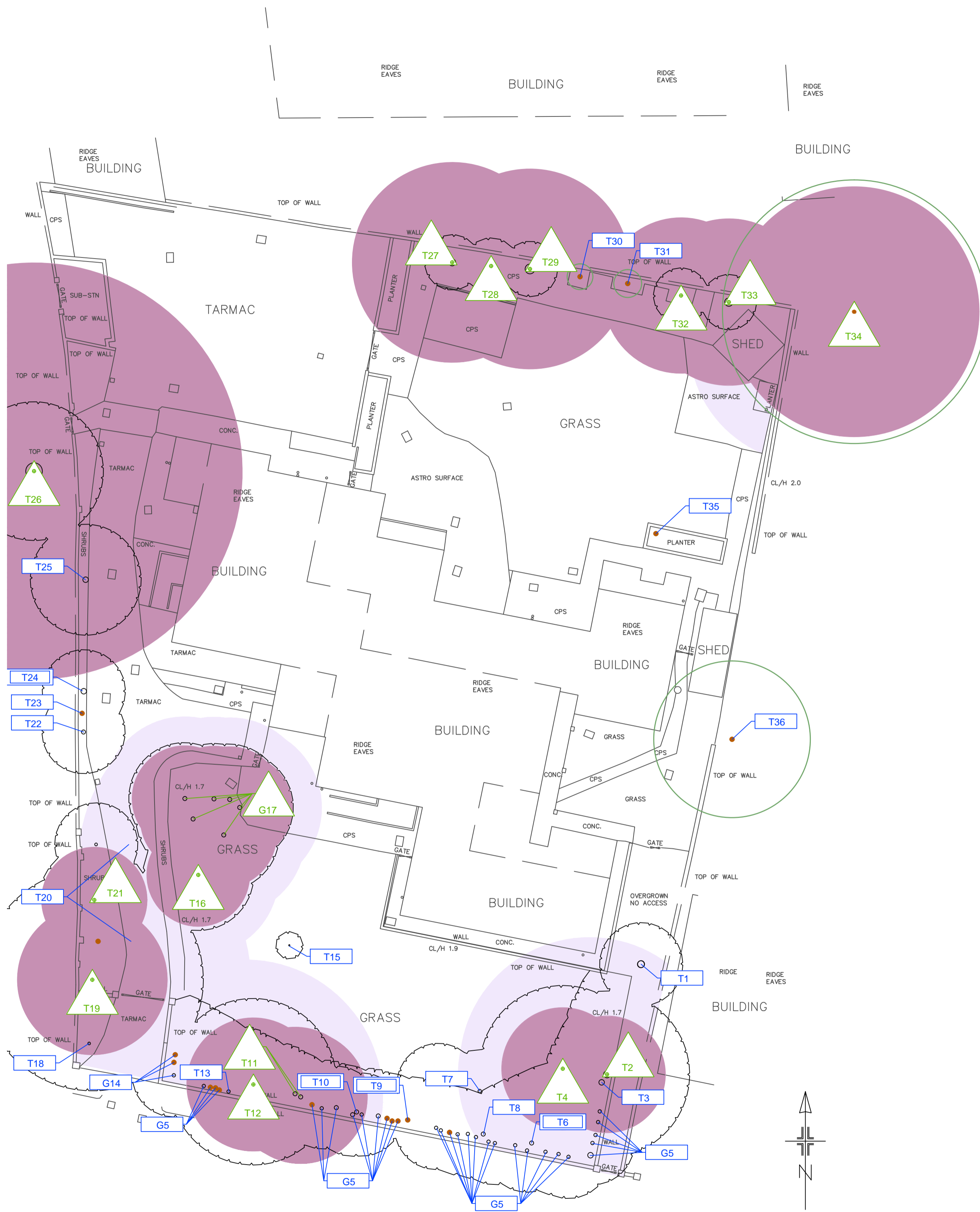


**Tree constraints plan**  
Location of trees, categorisation and development constraints at Silver Birches, Marchmont Road, Richmond

Tree No	Species	Height (m)	Category	RPA Radius
T1	Purple plum	7	C	4.2
T2	Beech	15	B	4.2
T3	Purple plum	5	C	3.8
T4	Ash	16	B	4.4
G5	Beech	11	C	3.8
T6	Cherry	4	U	2.6
T7	Cherry	7	C	2.0
T8	Cherry	7	C	3.8
T9	Cherry	3	U	3.6
T10	Cherry	2	U	2.4
T11	Robinia	11	B	4.8
T12	Horse chestnut	11	B	4.8
T13	Cherry	5	C	2.4
G14	Cypress	10	C	4.8
T15	Cherry	2.5	C	0.8
T16	Birch	16	B	3.8
G17	Birch	17	B	3.8
T18	Horse chestnut	5	C	2.4
T19	Ash	16	B	5.4
G20	Cotoneaster	6	C	3.6
T21	Apple	9	B	3.8
T22	Robinia	15	C	3.0
T23	Robinia	15	C	3.0
T24	Robinia	15	U	6.2
T25	Ash	14	C	3.8
T26	Poplar	14	B	15.0
T27	Lime	12	B	7.2
T28	Lime	12	B	5.4
T29	Lime	12	B	7.2
T30	Lime	6	C	1.2
T31	Lime	2.5	C	1.0
T32	Lime	12	B	5.6
T33	Lime	12	B	6.0
T34	Ash	16	B	9.0
T35	Bay	4	C	1.8
T36	Purple plum	6	C	4.2



BS category A Trees of high quality  
 BS category B Trees of moderate quality

BS category C Trees of low quality  
 BS category U Trees unsuitable for retention

Estimated tree positions not included on original land survey and adjusted crown spreads

**Purpose of this plan and its annotation**  
 This constraints plan provides sufficient information to interpret the tree constraints when designing a new layout. This guidance must be carefully reviewed with the individual tree information provided in the schedule on this plan. If there is any doubt about how to interpret this information, you must check it out with Barrell Tree Consultancy (BTC) on 01425 651470 or [info@barrelltreecare.co.uk](mailto:info@barrelltreecare.co.uk).

The number of each tree, hedge and group is highlighted in colour to enable quick identification of tree categories. Category A and B trees are green, category C and U trees are blue. The number of each A and B tree is set inside a green triangle; the number of each C and U tree is set inside a blue rectangle. Category A trees are shown with double triangles and U trees are shown with double rectangles. Zone 1, indicating the RPA where no ground disturbance should occur, is annotated with dark shading. Zone 2, indicating where shading, dominance and/or future growth may be an issue, is annotated with light shading.

**How to use the constraints information**  
 Our interpretation of the starting-point recommendations of BS 5837(2012) is that only category A and B trees are sufficiently important to influence a layout, so the category C and U trees are discounted in this constraints advice. The constraints that the A and B trees are likely to impose have been assessed as follows:

- Zone 1 (dense coloured shading):** This is called the root protection area (RPA) where ground disturbance must be carefully controlled. If encroachment is planned within the RPA, then this must be assessed on a tree-by-tree basis by BTC. If important trees are to be successfully retained, no significant disturbance should occur within the RPA and a high level of care is needed when working within it.
- Zone 2 (light coloured shading):** The second constraint is where shading/dominance/future growth may be an issue and is our estimate of how much space may be needed to retain trees after the development activity when the pressures of residential occupation come to bear. Factors such as crown density, future growth potential, orientation in relation to the sun and the number of trees in groups are considered to arrive at this second, less restrictive, constraints zone. Zone 2 is not normally suitable for occupied buildings, but uninhabited structures and hard surfacing may be acceptable within it.

Designers should try to avoid the loss of category A and B trees because the LPA will consider them important in determining the full impact of the proposal. Category C trees can be considered for retention if there is scope within the scheme. However, their loss should not be a material constraint and layouts do not have to be designed around keeping them. As a starting point in the design process, no significant disturbance should occur within the RPA of any category A and B trees shown as zone 1. There is sometimes scope to reduce this slightly in some directions if a corresponding increase can be achieved in other directions that results in the RPA remaining the same. However, such changes should be the exception rather than the rule and must be assessed on a tree-by-tree basis by BTC.

Under some circumstances, it may be acceptable to place footpaths, roads, services (including drains and soakaways) and unoccupied buildings within zone 1, but special precautions will be required and should be detailed after consultation with BTC.

Further consideration is required for occupied buildings; areas within the existing or future crown spread of retained trees or in areas of excessive shade should be avoided. This is the zone 2 illustrated on the plan. Exceptionally, non-inhabited buildings such as garages may be acceptable within zone 2, but this would not normally apply to residential occupied buildings.

- Limitations and warnings**
- This plan is confidential to the client and should not be released to any third parties without authorisation
  - It does not consider any ecological or other constraints that may exist on the site
  - Assessing constraints is subjective, especially the zone 2 advice, and third parties may not agree with the BTC interpretation
  - The plan is based on provided information and should only be used for dealing with the tree issues
  - All scaled measurements must be checked against the original documents
  - This constraints guidance is preliminary and only suitable for drawing up initial design proposals
  - Further consultation with BTC is essential before finalising any layout

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