



Photo 2



Photo 3





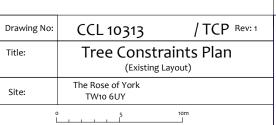
Photo 5



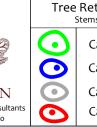
Photo 6

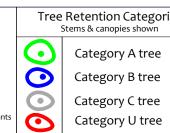


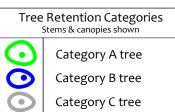
Photo 7

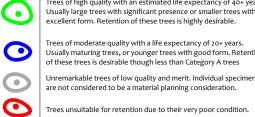






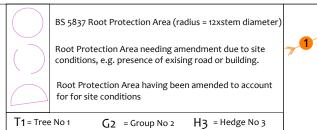






Trees of high quality with an estimated life expectancy of 40+ years. Usually large trees with significant presence or smaller trees with excellent form. Retention of these trees is highly desirable.

Tree Constraints Plan



RPA drawn as a circle, before amending to account for local topography and underground conditions

RPA amended to account for local topography.

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.

T16
T17
T18



Tree Constraints Plan



Photo 8



Photo 9





Photo 11



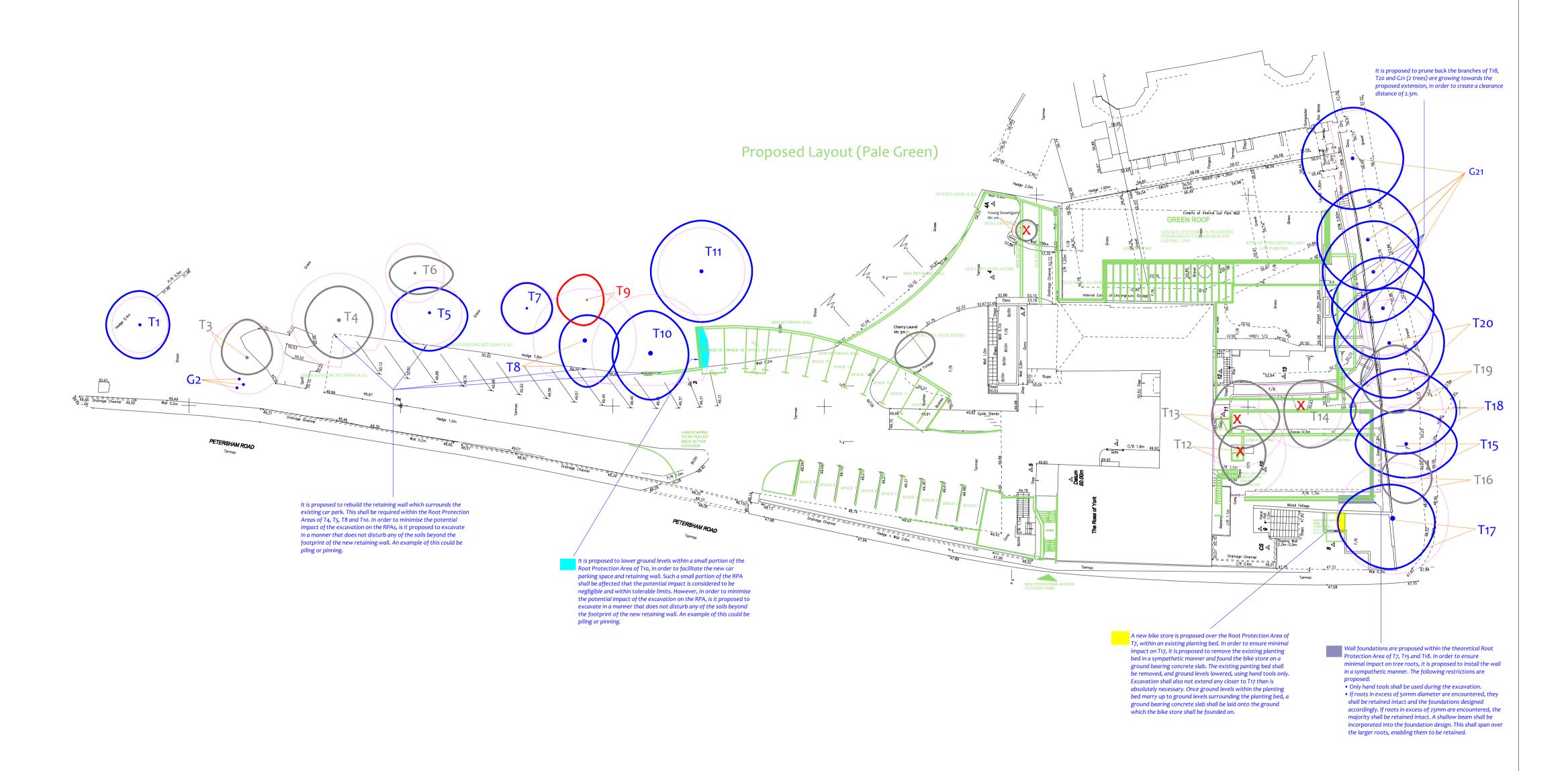
Photo 12

See the accompanying report for more photographs

T20	
T19 T18 T15 T16	
T17	



Impact Assessment Plan (Existing Layout with Proposals Overlaid)



	Drawing No:	CCL 10313	/ IAP Rev:
Title: Impact Assessmer (Existing Layout with Proposals			
Site: The Rose of York TW10 6UY			

CROWN Arboricultural Consultants 01422 316660 Category U tree

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

Impa	act A	ssess	sment	Plar

(Existing Layout with Proposals Overlaid)

	BS 5837 Root Protection Area (radius = 12xstem diameter)		
	Root Protection Area needing amendment due to site conditions, e.g. presence of exising road or building.	X	Tre faci
	Root Protection Area having been amended to account for for site conditions	X	Tre due
T1 = Tree	No 1 G2 = Group No 2 H3 = Hedge No 3		Pro

MN = Measured North: Canopy spreads are sometimes Tree to be removed to facilitate the proposal Measured to an approximate N defined by site features.

Often more accurate, especially Tree to be removed where rows of trees are not due to its low quality aligned N-S or E-W. roposed pruning

Radius (m) m² Square (m)
3.3 34 5.8
3.6 41 6.4
4.3 59 7.7
5.0 80 8.9
3.8 46 6.8 Norway Maple Cherry Norway Maple
 8
 3.1
 31
 5.5

 12
 5.8
 104
 10.2

 6
 2.0
 13
 3.6

 12
 6.2
 122
 11.1

 9
 5.2
 84
 9.1

 7
 4.7
 69
 8.3

 6
 4.9
 76
 8.7

 4.5
 4.6
 65
 8.1

 12
 4.7
 69
 8.3

 9
 2.9
 26
 5.1

 15
 6.6
 137
 11.7

 12
 4.9
 76
 8.7

 8
 3.2
 33
 5.7

 15
 4.7
 69
 8.3
 Cherry Ash Portuguese Laurel Strawberry Tree Hornbeam

Sycamore Sycamore



Arboricultural Method Statement

Site: The Rose Of York, Richmond, TW10 6UY

Date: 27/07/2021 | Revision: 2 | CCL ref No: 10313

Tree Protection Barriers The purpose of tree protection barriers is to keep construction activity away from Restricted Activity Zones or Construction Exclusion Zones. They should be appropriate to the nature and proximity of activity within the site. The barriers should be erected prior to the commencement of all activity

below and should be installed according to the legend on the Tree Protection Plan.

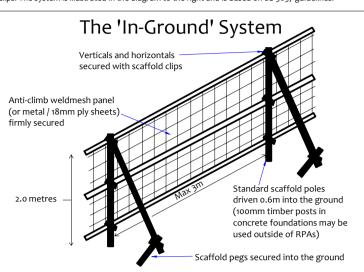
The In-Ground System This system may be installed where indicated by a solid purple line on the Tree Protection Plan. It should be robust enough to withstand occasional knocks by plant machinery and, once installed,

structures require demolition to enable the barriers to be installed). Barrier systems are specified

Vertical scaffold poles are driven into the ground, onto which are affixed horizontal scaffold poles is to be retained, it shall not be necessary to install additional ground protection measures. However, and diagonal bracing struts. Weldmesh panels (or similar – e.g. Heras type fencing panels, or 18mm+ the hard surfacing must be firm enough to spread the load of any traffic passing overhead.

plywood boards) are secured to this scaffold framework using sturdy clips e.g. standard scaffold

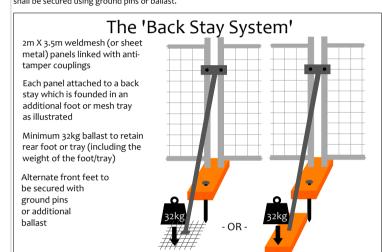
Where only pedestrian traffic will occur, the ground protection measures may be as simple as timber clips. The system is illustrated in the diagram to the right and is based on BS 5837 guidelines.



The Back-Stay System —— ——

This system may be installed where indicated by a solid or dashed purple line on the Tree Protection Plan. It is more practical over existing hard surfaces or where the fencing needs to be moved to enable permitted activities within a Restricted Activity Zone. This system should be able to withstand occasional knocks by machinery and should not be relocated except with the consent of the site manager and the approval of the local authority.

Within this system, weldmesh fencing panels (minimum height 2m) are affixed into rubber or concrete feet and clipped together with anti-tamper couplers. Two couplers should be used, spaced at least 1m apart. Alternate panels should be attached to a diagonal back stay connected to an additional foot or baseplate secured with ground pins or additional ballast. Where ground pins are not used, the total weight of the foot/plate plus ballast should total not less than 32kg. Where it is not possible to install diagonal struts (such as very close to a hedge) then the front feet shall be secured using ground pins or ballast.



Suitable weather-proof notices should be displayed to identify tree protection zones. They should state the purpose of the fencing and that it should not be moved, or traversed, other than by

Author: Joe Taylor FdSc (Arboriculture), M. Arbor A

Client: Cunnane Town Planning **Removal of Tree Protection Barriers**

Removal of protective fencing or ground protection measures shall be done after all major construction work is complete and their removal has been approved by the appointed arborist.

including demolition, soil stripping and delivery of materials and demolition (except where existing Ground Protection Measures

Within Restricted Activity Zones, soils containing roots may be subject to compaction due to general

construction activity (including pedestrian activity and use of plant machinery). In order to minimise compaction, it is proposed to ensure that a suitable load-spreading surface is in place at all times. Any existing hard surfacing may be retained and reinforced (where applicable and adequate), otherwise suitable new ground protection measures shall be installed. The ground protection shall need to be able to adequately spread the load of construction traffic. Where existing hard surfacing

boards, or scaffold planks installed directly onto a geotextile fabric on the ground. The ground should first be made even by raking, or by adding a few centimetres of sand or woodchip. Alternatively the boards may be supported by a scaffold framework. The scaffold may be founded on poles driven into the ground and/or onto blocks (to raise the scaffold) with additional couplings to

Where only light vehicles are to operate (e.g. barrows, trolleys or occasional cars), thick wooden boards or scaffold planks should also suffice, though at least 150m of compressible woodchip will $need\ to\ be\ installed\ first\ to\ help\ spread\ the\ load.\ Sturdier\ systems\ are\ specified\ below:$ Where cars will regularly park or heavier vehicles/plant machinery will occasionally operate, sturdier ground protection measures will be required such as metal road plates, or purpose built synthetic

oad mats over a compression resistant layer such as 150mm of woodchip or 100mm of a 3D cellular

confinement system in-filled with 7-40mm angular gravel (e.g. CellwebTM). A temporary concrete slab may also be considered as a suitable load spreading platform. Where a pile driver needs to operate, a concrete slab may be the preferred option. Where existing structures need to be removed, this shall be done with temporary ground protection neasures in place to enable this to be achieved without compacting soils.

The ground protection measures shall be installed and approved before commencement of demolition and construction activity and before the arrival of plant machinery or materials. They shall remain in place until all heavy construction activity is complete or until they are due to be replaced

Construction Exclusion Zones

Within Construction Exclusion Zones the following restrictions shall apply:

- Tree Protection Barriers shall be erected and maintained throughout the entire project as indicated on the Tree Protection Plan and under the header -Tree These shall remain in place at all times except when authorised landscaping works
- are being undertaken. At such times, all restrictions that apply to the Restricted Activity Zone shall apply. Furthermore, the project arborist shall be informed prior to any works being undertaken in these zones.
- No construction activity or excavation shall occur unless agreed otherwise by the project arborist and local authority.
- No vehicles or plant machinery shall be driven or parked. No tree works, other than those specified in this report shall be undertaken
- No alterations of ground levels or conditions shall occur. No chemicals or cement washings permitted
- No temporary structures shall be installed. No spoil shall be stored.
- No fires shall be permitted • All hazardous materials (including non-essential cement products) shall be forbidden
- Removal of hard surfaces, structures or turf shall be done using hand operated tools only and supervised by the project arborist.

Tree Works Specification

The following table specifies the tree works which will be required prior to the commencement of

Tree Reference	Action Required	Notes
T12, T13 and T14	Remove.	N/A
T18, T20 and G21 (2 trees)	Prune canopy to create a clearance distance of 2.5m from the proposal.	Branches to be pruned back to a secondary branch junction or the branch collar wherever possible. Pruning to be kept to a minimum to achieve the desired clearance of 2m.

Restrictions in Specific Zones

Restricted Activity Zone A

Within this zone trees roots are likely to be present where access will be required to facilitate construction. The following restrictions shall apply:

• No vehicles or plant machinery shall park or operate unless a suitable load spreading No fires shall be permitted beneath any tree canopy or within 5m of any tree stem, branch or foliage. specified under the heading Ground Protection Measures. This shall remain in place | fires shall be permitted in the vicinity of any exposed tree roots. throughout the entire construction phase or until any new permanent hard surfacing is installed. Any pedestrian activity other than very occasional shall also require a Canopy Protection · Removal of existing structures such as, walls, steps and hard surfaces (where

applicable) shall be undertaken using hand tools or a mechanical excavator operating

from outside the Restricted Activity Zone and carefully marshalled by the project • No excavation shall occur beneath any existing hard surfacing and its sub-base or beneath the foundations of any structure such as wall, steps or patio.

• No further excavation shall occur in this zone without consulting the project arborist and obtaining approval from the local authority. • Existing ground levels shall be retained undisturbed or raised by no more than 150mm. Ground levels may only be raised using granular topsoil (not rich in clay) or where new surfacing is proposed.

on the planning application documents unless approved by the local authority. Underground services shall not be installed in this area without prior consultation materials (including non-essential cement products) shall be forbidden. with the project arborist and a methodology agreed and approved by the local • If roots are encountered in excess of 25mm diameter, they shall be retained Any mixing of cement based

wherever possible and protected with damp sacking during times that they are materials shall take place unearthed. Any roots in excess of 10mm that need to be severed shall be pruned with outside the Construction • Storage of materials and spoil shall be avoided unless it has been agreed with the Activity Zones. Where cemen project arborist that the ground protection measures are adequate to ensure no soil is to be mixed at considerable compaction or contamination occurs. All hazardous materials (including non-essential distances from trees and wate

cement products) shall be forbidden.

Restricted Activity Zone B

In these zones it proposed to lower ground levels and rebuild the retaining wall. In the mixing area is contained so order to minimise the impact on roots, excavation should be undertaken using hand that no water run-off enters the new retaining wall. An example of this could be piling or pinning.

Restricted Activity Zone C Within this zone it is proposed to install a new wall. In order to minimise the impact on adjacent trees, the following restrictions shall apply:

 Only hand tools shall be used during the excavation. If roots in excess of 50mm diameter are encountered, they shall be retained • intact and the foundations designed accordingly. If roots in excess of 25mm are Statement and approved by the local authority. encountered, the majority shall be retained intact. A shallow beam shall be incorporated into the foundation design. This shall span over the larger roots, Site Hoarding

Restricted Activity Zone D

In this zone it is proposed to lower ground levels within an existing planting bed and install a slab foundation for the new bike store. In order to minimise the impact on roots it is proposed to utilise the Hand-Dig Method. The following restrictions shall apply:

• Excavation shall be overseen by the project arborist. Hand tools shall be used during the excavation. The excavation shall not extend any closer to T₁₇ than is absolutely necessary.

 If roots in excess of 25mm diameter are encountered, they shall be retained wherever possible and protected with damp sacking during times that they are Site hoarding may be installed in place of the specified tree protection measures subject to the unearthed. Any roots that need to be severed shall be pruned with secateurs. If roots in excess of 50mm diameter are encountered they shall be retained intact and the bike store foundation designed to accommodate them. The exposed roots Siting of Cabins

material such as damp cloth or polystyrene prior to any concrete being cast.

General Restrictions - Throughout the Site

Preparatory Works

ground protection measures are installed to the satisfaction of the local authority.

surface is in place. The load spreading surface shall be installed and/or maintained as No fires shall be permitted within any Construction Exclusion Zone or Restricted Activity Zone. No

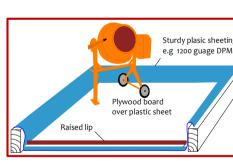
In order to protect tree canopies the following restrictions shall apply throughout the site: • No machinery in excess of 2m shall pass beneath the canopy of any tree without being carefully marshalled in order to ensure that no branches are damaged. • If materials require installation or delivery beneath tree canopies, this shall be done without the

• If materials are to be installed or delivered close to tree canopies (but not beneath them) and a crane is required, they shall be carefully marshalled in order to ensure that branches are not

Storage of Spoil and Materials

Storage of materials and spoil shall be avoided in any Construction Exclusion Zones and Restricted No new permanent or temporary structures shall be erected other than those shown
 Activity Zones unless it has been agreed with the project arborist that the ground protection measures are adequate to ensure no soil compaction or contamination occurs. All hazardous

run-off cannot enter Room Protection Areas, then n further special measures ar required. Otherwise, provision shall be made to ensure that



tools only and in a manner that does not disturb any of the soils beyond the footprint of the Root Protection Area of any trees (see diagram for example). Mixers and barrows shall be cleaned within this area.

All other chemicals hazardous to tree health, including petrol and diesel, shall be stored in suitable

Underground Services No underground services (including soak-aways) shall be located in any part of the Construction Exclusion Zones or Restricted Activity Zones unless done so in a manner detailed in a specific Method

If site hoarding shall be installed over the Root Protection Area of any tree, the following restrictions

Ground levels shall be maintained as existing. Post holes shall not exceed 300mm x 300mm.

No post hole shall be excavated within 1.5m of any tree stem. Post holes shall be excavated using hand tools or by a post-hole auger attached to plant

hoarding. It shall be undertaken by a reputable tree surgeon working to BS 3998 (2010).

machinery sited outside of Root Protection Areas. Roots in excess of 25mm shall be retained wherever possible. Roots in excess of 10mm shall be pruned with sharp secateurs. • Pruning shall be minimal and only undertaken where absolutely necessary to facilitate the site

approval of the local authority with regard to its location and specification.

shall be adequately shuttered off using timber and a suitable protective packaging Cabins shall be located outside of Construction Exclusion Zones and Restricted Activity Zones unless agreed otherwise by the project arborist. Where this is being considered, the project arborist shall be onsulted and specific tree protection measures agreed. The following general restrictions will apply: All services to and from site cabins shall be installed above ground through any Root Protection

 No excavation shall occur within Root Protection Areas to enable cabins to be installed. The cabins shall be founded on a suitable load spreading surface.

Use of Heavy Plant

be carefully marshalled when working close to tree canopies

All machinery operatives are to be made aware of any Construction Exclusion Zones and Restricted Activity Zones that apply to this site. All machinery operatives are to respect these zones and ensure that no damage occurs to trees due to the careless use of machinery. Mechanical excavators should have tracks rather than wheels to help spread their load. They should

If scaffolding is required in areas containing ground protection measures, the protective boards shall need to remain in-situ and be strengthened and stabilised to bear the weight of scaffold poles. Prior to the installation of any scaffolding within 0.5m of any tree branches, the project arborist shall be consulted to specify any pruning works that may be required.



Early-Mature

Semi-Mature

Early-Mature

Acer platanoides

Early-Mature

Fraxinus excelsio

Semi-Mature

Prunus sp.

Early-Mature

Early-Mature

Mature

Prunus sp.

Early-Mature

Portuguese

Prunus Iusitanica

Mature

Strawberry Tree

Arbutus unedo

Early-Mature

Carpinus betulus

Semi-Mature

Early-Mature

Early-Mature

Semi-Mature

Early-Mature

Early-Mature

Tree Protection Plan

History: No evidence of significant pruning. Defects: No significant defects observed.

History: No evidence of significant pruning. Defects: No significant defects observed.

No significant defects observed.

No evidence of significant pruning.

History: Multiple pruning wounds due to crown reduction.

equivalent for 2 stems (37cm, 30cm).

Defects: No significant defects observed.

Defects: No significant defects observed.

inspection at back.

History: No evidence of significant pruning.

Defects: No significant defects observed.

Defects: No significant defects observed.

History: No evidence of significant pruning.

Defects: No significant defects observed.

History: No evidence of significant pruning.

Position: Situated on third party land.

Position: Situated on third party land.

Defects: No significant defects observed.

Defects: No significant defects observed.

History: No evidence of significant pruning. Defects: No significant defects observed.

History: No evidence of significant pruning.

Defects: No significant defects observed.

History: No evidence of significant pruning. Defects: No significant defects observed.

Position: Situated on third party land.

Form: Row of 4 specimens.

History: No evidence of significant pruning Defects: No significant defects observed.

History: No evidence of significant pruning Defects: No significant defects observed.

28cm, 28cm).

Single stemmed and vertical with a slightly unbalanced cro

Single stemmed with a slight lean and a slightly unbalan Multiple pruning wounds due to crown lifting.

Single stemmed and vertical with a balanced crown

Twin-stemmed at ground level with a slightly unbalanced crov

y prevented detailed inspection. Recorded stem diameter is

Single stemmed and leaning with a slightly unbalanced crown.

Defects: Significant decay column to stem at 1m to 2m above ground level.

Multi-stemmed at ground level with a balanced crown

Defects: 20cm diameter stem torn out at circa 6m, acceptable condition at

History: Multiple pruning wounds due to crown reduction.

Twin-stemmed at 2m with a balanced crown.

Twin-stemmed at 1m with an unbalanced crow

Single stemmed and vertical with a balanced crown

Single stemmed and vertical with a balanced crown No evidence of significant pruning.

Multi-stemmed at ground level with a slightly unbalanc

Form: Single stemmed and vertical with a balanced crown

Single stemmed and vertical with a balanced crown

Single stemmed and vertical with a balanced crow

Position: Situated on third party land along woodland edge.

Multiple pruning wounds due to crown reduction.

Single stemmed and vertical with a slightly unbalanced cr

defects.

Crown clean.

Remove ivv and

Moderate

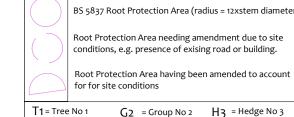
Moderate

Moderate

Good

10-20

10-20



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 Usually maturing trees, or younger trees with good form. Retense trees is desirable though less than Category A trees markable trees of low quality and merit. Individual specimer

Trees unsuitable for retention due to their very poor condition

Tree Protection Plan (Existing Layout with Proposals Overlaid) The Rose of York, TW10 6UY

Construction Exclusion Zone Construction Exclusion Zone Proposed Layout (Pale Green) Restricted Activity Zone A Construction Exclusion Zone \$ 49.66 Dvalnage Channel 49.50 Wall 0.2m **Tree Data Schedule** Restricted Activity Zone B Twin-stemmed at 1.5m with a balanced crow No evidence of significant pruning. Defects: No significant defects observed. Construction Exclusion Zone Semi-Mature 3 Close growing specimens. No evidence of significant pruning No significant defects observed. Early-Mature Multi-stemmed at ground level with an unbalanced crown No evidence of significant pruning. Defects: Significant bark wound to all three stems due to fire damage. Acceptable condition at present. Recorded stem diameter is equivalent for 3 stems (28cm, 20cn

Timing of Operations

Activity within the site shall be phased according to the following chronology:

Order	Phase	Activity		
1st.		Planning conditions relating to trees to be identified and discussed with the Project arborist and site manager.		
2nd.		All specified tree removal and pruning to be undertaken (see Header -Tree Works Schedule).		
3rd.	Pre- Construction	Install the tree protection barriers (fencing and ground protection boards - see Headers - Tree Protection Barriers and Ground Protection Measures).		
4th.	Phase	Pre-Commencement site meeting: Tree protection barriers inspected. Additional protection measures to be agreed. Variances to be agreed. Location of underground services to be agreed. Boundary treatments to be agreed. Extents of excavation to be agreed. Scaffold restrictions to be agreed. Scope of future inspections / monitoring to be agreed.		
5th.		Arboricultural Method Statement to be revised and approved.		
Protection measures confirmed acceptable by the local authority				
6th.	Construction	Demolish existing structures and remove existing surfaces where applicable.		
7th.	Phase	Install new buildings, hard surfaces and services taking into account restricted activities as specified in this Arboricultural Method Statement.		
8th.		Site meeting with project arborist. Landscaping restrictions to be agreed. Condition of retained trees to be assessed and mitigation agreed. Ground conditions to be assessed and ground remediation to be agreed.		
9th.	Post-	Remove protective barriers (fencing and ground protection measures as applicable).		
10th.	Construction Phase	Undertake restricted landscaping operations within Root Protection Areas, including (where applicable) boundary treatments, pedestrian surfaces, decking and any proposed tree planting.		

Site Monitoring Schedule

Inspection	Site Attendees	Comments
Pre- Start Desk-top To occur prior to any works taking place on the site.	N/A.	Project Manager and Site manager to study this Method Statement & contact t Project Arborist to agree all protection measures.
Pre-Start Meeting After tree works completed & tree protection barriers / ground protection measures installed. Prior to any other activity, inc. demolition & soil stripping.	Site manager, project arborist. Tree Officer invited.	Tree protection fencing locations & specification checked. Additional ground protection measures checked. Further protection measures / restrictions agree
Excavation for the new bike store within Restricted Activity Zone D	Site manager, project arborist. Tree Officer invited.	Two week's notice to be given prior to excavation. Excavation to be as specified in this Method Statement. Excavations to be recorded and photographed. Mitigation measures to be employed specified by the project arborist.
Intermediate Inspection and Reporting Throughout the demolition and external construction phase.	Site manager and project arborist.*	Project manager, site manager and project arborist to liaise regarding any issue which may affect trees. To occur at least once per month.
Post-Construction Meeting Post external construction activity but prior to removal of fencing & landscaping operations.	Site manager, project arborist. Tree Officer invited.	Retained trees inspected. Ground conditions assessed and mitigation measure agreed where appropriate. Further landscaping operations and restrictions to agreed.

Site Monitoring Accountability

This table should be completed at the Pre-Start Meeting or earlier

Position	Name	Contact Phone & email	Roles
Project Manager	Insert Details	Insert Details	Liaising with site manager & project arborist regarding any potential issues relating to trees. Oversight of this monitoring schedule. Instructing the project arborist and arranging access. Liaising with local authority regarding discharge of planning conditions and variances to the Arboricultural Method Statement.
Site Manager	Insert Details	Insert Details	Familiarity with Arboricultural Method Statement. Implementation of the tree protection measures. Day-to-day compliance with Tree Protection Measures. Informing the Project Manager of Tree Protection variances & issues affecting trees.
Project Arborist	Crown Tree Consultancy all s	08000 14 13 30 0203 797 7449 Info@crowntrees.co.uk	Inspect tree works and report to the project manager. Inspect tree protection measures and report to Project Manager. Oversee excavations in RPAs, provide mitigation advice, undertake root pruning. Monthly site monitoring and reporting to the Project Manager on tree protection and variances.
Local Authority	London Borough of Richmond	General Enquires 020 8891 1411	Liaising with the project arborist and project manager regarding tree protection issues relating to planning conditions. Advice and assistance with the discharge of planning conditions relating to trees.
Additional Contact	Insert Details	Insert Details	Insert Details
Additional Contact	Insert Details	Insert Details	Insert Details
			,



CROWN