



**Canal &
River Trust**

Making life better by water

Arboricultural Impact Assessment (AIA)

**P/12553 Slaithwaite Reservoir
Spillway Project**

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Introduction

Background

The Canal & River Trust's Environment Team were requested to carry out an Arboricultural Impact Assessment (AIA) of Slaithwaite Reservoir, Slaithwaite, West Yorkshire, HD7 5XE (NGR SE 0735 1415). The assessment was carried out in accordance with BS 5837: 2012 Trees in relation to design, demolition and construction – Recommendations.

All trees, regardless of their statutory status, are a material consideration in planning. BS5837:2012 recognises the potential conflict between trees and development. The standard sets out to assist those concerned with trees in relation to construction and aid with decision making.

The objective of this survey was to gather information regarding the location of trees and hedgerows on the site and assess how these might be impacted by the proposed construction and development. This report will address the likely impacts of the proposed works on trees on and adjacent to the site. An arboricultural method statement is included in this report to provide guidance on tree protection measures during construction. Recommendations for the protection of trees is based on BS 5837: 2012.

Proposed works

Canal and River Trust are responsible for the ongoing safety and management of Slaithwaite Reservoir and it's associated infrastructure.

As required under the Reservoir Act 1975, Slaithwaite Reservoir has been subject to external inspections assessing the safety on the reservoir. The most recent inspection identified necessary improvements to Slaithwaite Reservoir (also referred to as MIOS or Measures in the Interest of Safety) within a section 10 (S10) inspection report.

This report relates to the spillway remediation/replacement works which are required to address the MOIS. The scope of works is being finalised at the time this report was written, however, it is proposed that a new spillway will be installed along the path of the current spillway. Access steps will also be installed to the side of the spillway down its entire length to enable inspections to be carried out safely.

Site Overview

The site is located within Slaithwaite in a suburban-rural context, in the Kirklees District.

The project site is bound to the north by a footpath and Bank Gate and Longlands Road which are lined with residential dwellings, commercial properties and a grade II listed mill building. Holme Lane bounds the South of the site and comprises of residential properties. The site is bound to the east by commercial and residential properties and a railway aqueduct. The site is bound to the west by a footpath which passes over the dam headwall and the main waterbody of Slaithwaite reservoir. The wider area is a mixture of woodland, pastureland, and residential and commercial properties.

The site itself (as indicated in Figure 1.) comprises Slaithwaite Reservoir and associated grass covered dam, spillway and horseshoe channel, and wooded areas around the extremities of the site. The spillway consists of a concrete structure which drops into a rocky gorge and culverted section of spillway.

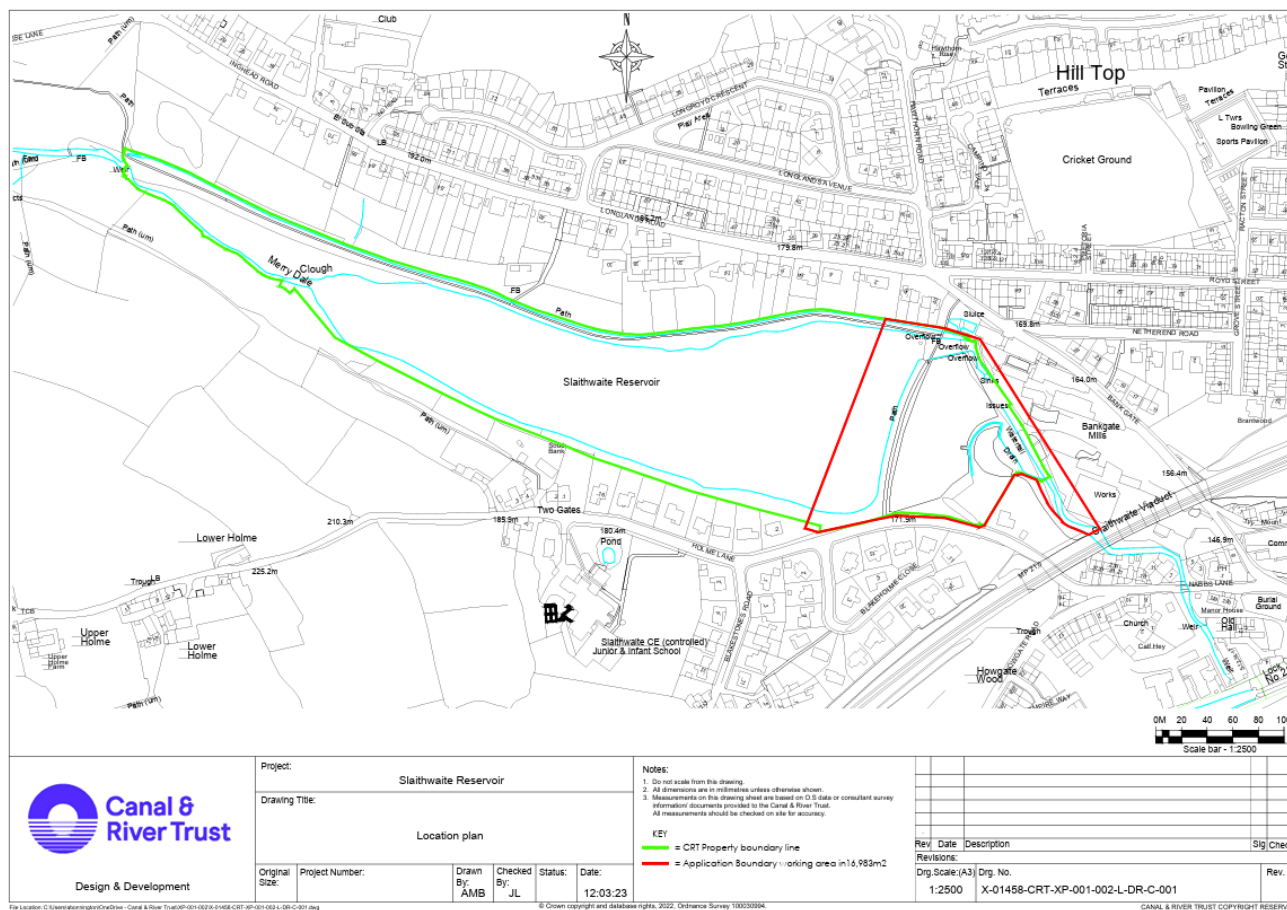


Figure 1. Red Line Boundary for the spillway replacement works at Slaithwaite Reservoir.

Survey Methodology

An initial BS 5837: 2012 survey was undertaken on 20th July 2023 with an update on 19th January 2024 to reflect changes made in the red line boundary. Personnel undertaking the surveys included Caitlin Hayman, Phillippa Baron and Iona Anderson. An updated site visit was carried out on 10th March 2025, by Caitlin Hayman, to capture any additional scope.

The weather conditions during all surveys was dry, sunny with partial cloud cover and a light wind.

The tree survey and report on the following have been carried out in general accordance with BS5837 'Trees in Relation to Construction' (2012). Tree species, height, stem diameter and crown spread were recorded for the trees within the site. In accordance with BS5837: 2012, only trees with a stem diameter of 75mm or greater were surveyed. Due to the size and nature of the site, it was decided in the survey methodology that trees which share similar characteristics would be grouped. This method is in line with point 4.4.2.3 of the BS 5837:2012. A tree schedule can be found in Appendix 1.

All trees, groups of trees and hedgerows surveyed have been assigned a number prefixed by the letters T, G and H respectively and were assessed using the 'Cascade chart for tree quality assessment' as described in Table 1 of BS 5837:2012. The locations of trees, groups of trees and hedgerows are shown on the Tree Constraints Plan (Appendix 2).

The survey was carried out using Visual Tree Assessment (VTA) methodologies from ground level only. No aerial surveys were undertaken. No below ground, invasive, or destructive tests were undertaken. No soil samples were taken for analysis.

Due to the changing nature of trees and other site circumstances, this report and any recommendations are limited to a 2-year period.

Survey Constraints and Limitations

During the survey access to the offside of the spillway wasn't possible, as such, measurements were estimated for the trees and groups of trees which were growing out of the rocky gorge (T10, T11 and G7).

Legislation

A Tree Preservation Order (TPO) is an order made by the Local Authority to protect specific trees, group of trees or woodlands in the interest of amenity. Trees with a diameter of 75mm or greater which fall within a conservation area are also afforded protection. A TPO/Conservation area status prohibits the cutting down, topping, lopping, uprooting or wilful damage or destruction of trees without the Local Authority's written consent.

The site is located within the local authority district of Kirklees Council. At the time of writing this report, access to the online interactive map revealed the presence of a TPO area (ID:37/95/w1) to the east of the site (Figure 2). The TPO in relation to the trees and tree groups can be seen in Appendix 2. In addition, there are several TPO's present around the wider reservoir, however, these will not be impacted by the scheme.

There are no conservation area designations within the red line boundary, however, Slaithwaite Conservation Area abuts the site boundary to the South-East of the site.

All work to trees covered by a TPO require permission from the Local Authority, this includes activities such as pruning. However, this does not include trees are dead or have become dangerous. Permissions are not needed where tree works are required to implement an approved planning application.

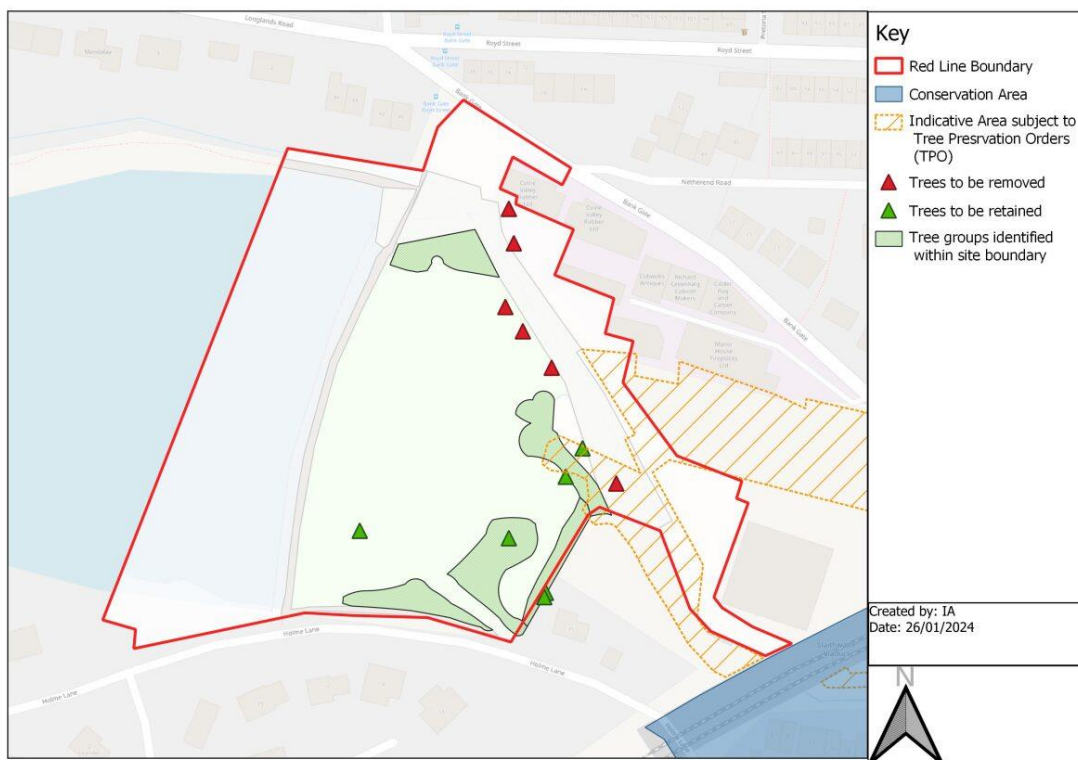


Figure 2. Map of Tree Preservation Order and Conservation Areas in relation to proposed tree removal.

Wildlife Legislation

The presence of protected species on site has been covered by Trust Ecologists and external consultants. However, prior to the commencement of any tree works, the trees should be assessed for the presence of protected species. Advice should be sought from a suitability qualified ecologist.

If tree works are to be carried out during bird nesting season (01 March to 01 September), works will need to be overseen by an Ecological Clerk of Works.

Arboricultural Impact Assessment

BS5837 Survey results

The survey assessed 12 individual trees and 7 tree groups. No hedgerows were noted during the survey. Each tree and tree group was assessed for their quality and value in line with BS5837:2012, a summary can be seen below.

	Category A	Category B	Category C	Category U
Trees	1	6	0	5
Groups	0	4	3	0
Hedgerows	0	0	0	0

A singular oak tree (T8) was categorised as A. Trees assigned to this category are of high quality. It includes attractive trees with high visibility and no significant defects, which can make a substantial contribution for a minimum of 40 years.

52% of trees have been categorised as B. Trees assigned to this category are of moderate quality. It includes healthy attractive trees with remediable defects that are in a condition as to be able to make a significant contribution for a minimum of 20 years.

16% of trees have been categorised as C. Trees assigned to this category are trees of low quality. It includes unremarkable trees of limited merit that are easily replaced, small-growing, young species which have a relatively low potential amenity value, and low landscape benefits.

26% of trees have been categorised as U. Trees assigned to this category are those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.

All trees surveyed fell within the site boundary or on the edges of the red line boundary. The majority of the tree cover was located on the extremities of the site, mostly towards the eastern aspect of the site. The trees on site are believed to be formed from a mixture of natural regeneration and formative planting.

The tree cover on site mainly consisted of young to semi-mature trees, ranging from low to high quality. The more established groups and trees were those which demonstrated a higher quality. Several trees on site were deemed as unsuitable for retention due to structural defects or poor health, these are highlighted within the tree schedule where a risk is posed.

Individual trees and tree groups G2, G4, T8, T9 are visually important in terms of their contribution to the character and appearance of the area. G2 is also of ecological importance due to the damp woodland composition which was unique to the site and this group falls partially within the TPO area.

A Tree Constraints Plan can be found in Appendix 2.

Impacts of development

The majority of the spillway repairs/replacement is confined within the area of its current extent. The proposed tree works below are in order to facilitate the repairs.

The proposed scheme would require the removal of mainly category C and U trees and tree groups, however, it would also require the removal of 'moderate quality' B category trees and tree groups. The following trees and tree groups are not compatible with the repair works and as such will be removed: G1, G7, T10, T11, T12.

T1, T2 and T3 were highlighted in the July survey for removal irrespective of the scheme due to their condition and damage caused to an asset (all category U), however, upon inspection in January 2024 these trees had been removed.

An access track will be installed through a section of G2 (access route 2). This has required a 10m wide strip to be cleared through the eastern end of the woodland block. In addition, trees around the perimeter of G2 have been removed to facilitate the construction of the crane pad and construction of the spillway. The remainder of G2 will be crown reduced by 20% so that the crane can lift materials without damaging the tree group. The work described above has required the clearance of 16 trees with a dbh of 75mm or greater, the majority of which were below 200mm and Ash (*Fraxinus excelsior*) with advanced stages of Ash Dieback. It has also required the removal of a number of saplings/shrubs. This route has been determined alongside a qualified arborist and ecologist to minimise impact through the wooded area. Replacement planting would take place following the repairs.

For the first access track across the face of the dam, facilitation pruning is required G5 and the removal of two non-native trees in G4 and the coppicing of one multi-stem Willow in G4.

Although the proposed scheme would result in the loss of some moderate quality trees, it would be offset by the retention of other large groups which are already established on site. The loss of tree cover at the top of the dam will be the most noticeable change, however, there will still be a good area of tree cover at the base of the dam to maintain visual amenity value on site. Following the scheme it will be further offset through onsite tree planting and the production of a robust soft landscaping scheme.

All other trees and tree groups on site are to be retained and can be protected throughout the proposed development in accordance with the standards and practices detailed in BS5837:2012 and in this report.

Arboricultural Method Statement

Arboricultural Method Statement (AMS) includes a Tree Protection Plan (TPP) to identify:

- Identifies trees to be retained (coloured green in Appendix 3)
- Identifies Construction Exclusion Zones for trees been retained.

Exact measures of RPAs can be found in the tree schedule (Appendix 1)

Root Protection Areas/Zones

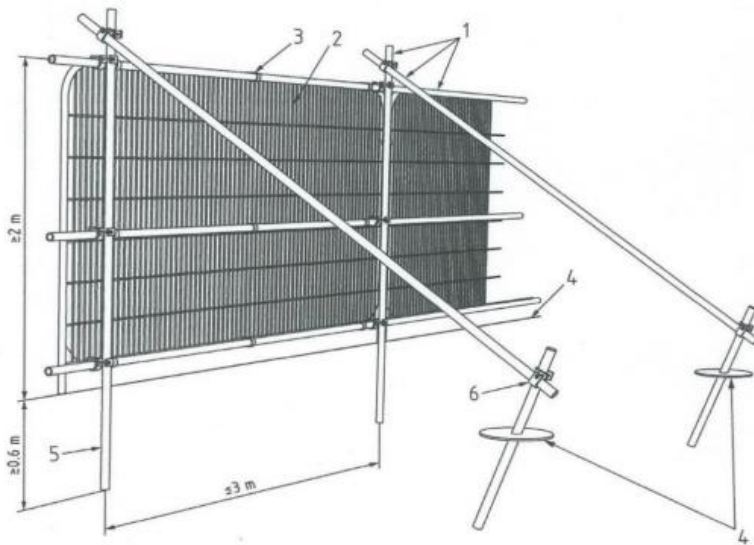
The root protection area (RPA) required in the current edition of BS 5837 Trees in Relation to Construction relates to the stem diameter of each tree when measured at a height of 1.5m from ground level. The RPAs are to be afforded protection at all times and will be protected by fencing. No works will be undertaken within any RPAs that causes compaction to the soil or severance of tree roots. Apart from the access routes

detailed in the section below there are no planned construction of foundations or installation of services within any RPAs.

A protective fence should be erected prior to the commencement of any site works e.g. before any materials or machinery are brought on site, development or the stripping of soil commences. The fence should have signs attached to it stating that this is a Tree Protection Area and that NO WORKS are Permitted within the fence. The protected fence may only be removed following completion of all construction works.

The fence is required to be sited in accordance with the Tree Protection Plan enclosed with this method statement. They must ideally be constructed as per figure 5 in BS 5837 2012 and be fit for the purpose of excluding any construction activity. Any other fence/barrier used must be fit for the purpose.

Fencing must not be removed or repositioned without approval of a qualified arboriculturist.



Key

- 1 Standard scaffold poles
- 2 Heavy gauge 2m tall, galvanised tube & welded mesh infill panels
- 3 Panels secured to uprights & cross members with wire ties
- 4 Ground level
- 5 Uprights driven into the ground until secure (minimum depth 0.6m)
- 6 Standard scaffold clamps

Fig. 5: Protective barrier specifications

Access Detail

Construction traffic shall be accessing site via two routes; the first is off Holme Lane and across the face of the dam. The second access is off Nabb lane and over a new bridge over Merry Dale Clough. At the end of each access track a crane pad will be constructed.

Access route 1 will be passing along the edge of T8 RPA area. It is recommended a no dig construction such as Geogrid is used along the edge of the RPA area to prevent compaction of the soil around the roots.

Access route 2 will be coming through a section G2 block. Tree clearance will be required before the temporary access route is installed. It is recommended a no dig solution such as a Geogrid is used through the woodland to prevent compaction of soils for trees retained in the western extent of G2.



Ground protection for construction access routes

If temporary access is required to a RPAs then access may only be gained after consultation with a suitably qualified arboriculturist and following placement of ground protection measures of one of the following or similar, as described in BS5837:2012.

- For pedestrian movement, single thickness scaffold board should be laid on top of 100mm of woodchip laid on top of a geotextile membrane.
- For plant up to gross weight of 2 t, interlinked boards must be laid over a compression resistant layer such as woodchip to 150mm, over a geotextile membrane.
- For construction traffic over 2 t gross weight a proprietary system or pre-cast concrete slabs must be installed, in conjunction with arboricultural advice.
- No dig detail for access track 2 through G2 – see detail below.

In all instances, the objective is to prevent soil compaction.

Contractors Compounds, Storage and parking

The compound location is located off Nabbs lane on an area of existing hardstanding. Parking will be located at the compound location and then access will be made via the two access routes. No further measures are required.

Storage is currently proposed on existing hardstanding in the compound area. No further measures are required for the protection of trees in these areas.

No storage of materials, lighting of fires will take place within the RPA. No mixing or storage of materials will take place up a slope where they may leak into a RPA.

If compound and storage locations are to change, consultation will be required with a suitably qualified professional.

Installation of underground services

No underground services are proposed to be installed as part of this scheme.

Demolition

There will be no demolition as part of this scheme.

Installation of hard surfacing in proximity to trees

A section of G2 will be removed prior to the construction of the temporary access route 2. This track will be within the RPA area of T4 and some of the remaining trees in G2. A no dig approach is to be undertaken through G2. Detail in section below. There is no other proposed hard surfacing in RPA areas.

No excavation, soil stripping or grading to be conducted within the RPA of retained trees and hedgerows.

If hard surfaces are required within the RPA this will need to be installed using a 'no dig' method of construction. This must be approved by qualified arboriculturist.

The following principles must be upheld:

- Soil must not be compacted (avoid setting up in waterlogged conditions)
- Roots must not be severed.
- Oxygen and water exchange must be made possible through new surface.

Installation of no-dig access track

The proposed route of the access track through the Root Protection Area (RPA) of trees marked T4 and G2.

Ground preparation:

- All ground vegetation will be cut to ground level.
- All dead organic material will be removed.
- All major protrusions will be removed. Stumps ground out.
- Fill major hollows with sharp sand.

Track construction:

- Lay Geogrid (or equivalent i.e. Geoweb) over entire track to extend 100mm beyond track width
- Construct an edging of boards attached to pegs driven into the ground through the geogrid.
- The geogrid will be covered with a minimum of 100mm of type 1 roadstone. This will be tipped from one end so that machinery moves on already spread sub-base and not upon the geogrid or ground close to the geogrid.
- Compact the sub-base using hand held vibrating tamper
- Lay surface on compacted aggregate to desired level.

Soft landscaping

Planting of new trees and hedgerows should be carried out in accordance with BS5837:2012.

Existing ground levels with RPAs should be retained and not subject to compaction or alternation.

Manual tools should be used where possible if planting with RPA to minimise root disturbance and damage.

Remedial Tree Works

Tree works will be undertaken in the first phase of proposed development works. All tree works are to be carried out in accordance with BS 3998 (British Standard Recommendations for Tree Work (2012). A schedule of tree work has been issued separately to the contractor.



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Appendix 1 – Tree Schedule

Ref	Species	Full Structure	Measurements	Spread (m)	General Observations	Physiological/ Structural comments	Retention Category	RPA	Recommendations
G1	White Willow (<i>Salix Alba</i>) Goat Willow (<i>Salix caprea</i>) Sessile oak (<i>Quercus patrea</i>) Rowan (<i>Sorbus aucaparia</i>) Silver birch (<i>Betula pendula</i>) Downy birch (<i>Betula pubescens</i>) Hawthorn (<i>Cratagus monogyna</i>) Ash (<i>Fraxinus excelsior</i>) Elder (<i>Sambucus nigra</i>)	Group >10 trees	Height (m): 5-12 Stem Diam (mm): 250, 220, 200, 240, 100, 110, 125, 90, 320, 230, 100 Spread (m): 2-3 average Life stage: Young Rem. Contrib.: 40+ Years	N: 2 E: 2 S: 3 W: 3	Young, diverse stand. Trees in group displayed good health and vigour.	Physiological: Good Structural: Good	C	Not applicable – to be removed as part of scheme	Remove pre-construction to facilitate site access. Replacement planting required.
T1	Ash (<i>Fraxinus excelsior</i>)	Tree	Height (m): 9 Stem Diam (mm): 130 Spread (m): 0.5 Life stage: Young Rem. Contrib.: 10+ Years	N: 3 E: 3 S: 4 W: 4	Damage to base of trunk, showing good wound occlusion Dead branches in lower crown. Signs of ash dieback developing. Multistem Base of trunk and NE/E limbs growing through fence	Physiological: Fair Structural: Poor	U	Not applicable	Remove tree pre-construction. (Tree has been removed since initial survey)

T2	Elder (<i>Sambucus nigra</i>)	Tree	Height (m): 8 Stem Diam (mm): 140 Spread (m): 0.5 Life stage: Early mature Rem. Contrib.: 20+	N: 1.5 E: 1.5 S: 2 W: 2	Multistem Elder. Dieback in outer crown. Growing through fence.	Physiological: Fair Structural: Poor	U	Not applicable	Remove pre-construction. (Tree has been removed since initial survey)
T3	Ash (<i>Fraxinus excelsior</i>)	Tree	Height (m): 8 Stem Diam (mm): 150 Spread: 0.3 Life stage: Young Rem. Contrib.: 10+	N: 2 E: 2 S: 2.5 W: 2	Multistem Ash, showing evidence of previous coppicing. Moderate severity of ash dieback. Growing through fence. Bindweed established on tree.	Physiological: Poor Structural: Poor	U	Not applicable	Remove pre-construction. (Tree has been removed since initial survey)
G2	Hawthorn Holly Goat Willow Sycamore Crack Willow	Group >10 trees	Height (m): 4-14 Stem Diam (mm): 80, 210, 190, 480, 300, 150, 90, 130, 375, 80 Spread: 0.5-6m Life stage: Young to Early Mature Rem. Contrib.: 40+	N: 8 E: 6 S: 7 W: 6	Majority of trees showing signs of good health and vigour. Stream running through this group of trees. Himalayan Balsam is present. Dominated by Salix species due to wet nature of woodland. Understory species developing. Hawthorn along out edges.	Physiological: Fair to Good Structural: Fair to Good	B3	Radius: 2.5m Area: 20m ²	Retain group during construction. Group would benefit from thinning out. Himalayan Balsam management
T4	Sessile Oak (<i>Quercus patrea</i>)	Tree	Height (m): 14 Stem Diam (mm): 275 Spread (m): 4 Life stage: Young Rem. Contrib.: 40+ years	N: 3 E: 3 S: 6 W: 6	Some upper twig/branch dieback due to shading Good vigour – healthy shoot growth/fruit production. Growth compromised by G2. Ivy growing around trunk	Physiological: Good Structural: Fair	B3	Radius: 3.3m Area: 34m ²	Retain Do some thinning to G2 to allow crown to develop further.
T5	Ash (<i>Fraxinus excelsior</i>)	Tree	Height (m): 14 Spread: 9 Life stage: Young Rem. Contrib.: 20+ years	N: 2# E: 2# S: 2# W: 2#	Unable to access to gain measurements due to collapsed willow.	Physiological: Poor Structural: Poor	U	Included in Grp 2.	Ash positioned at edge of wet woodland away from public access. Retain to allow to decay naturally for wildlife interest.

					Ivy growing up trunk Poor health, significant crown dieback Advanced ash dieback Snagged deadwood in crown				Can be removed if scheme requires
G3	Elder Holly Goat Willow Crack Willow Hawthorn Bird Cherry	Group	Height (m): 3-10 Stem Diam (mm): 480, 218, 170, 150, 80, 80, 410, 90 Spread: 0.5-4 Life stage: Young Rem. Contrib.: 40+	N: 3 E: 3 S: 5 W: 3	Young stand. Generally good health and vigour. Some Salix C. showing signs of dieback and minor limb loss evident. Mix of understory species. Salix sp, dominating canopy	Physiological: Fair to Good Structural: Fair to Good	C1	Radius: 2.5m Area: 20m ²	Retain Protect during construction.
T6	Beech	Tree	Height (m): 20 Stem Diam (mm): 280 Spread (m): 8 Life stage: Young Rem. Contrib.: 40+ years	N: 5 E: 4 S: 3 W: 6	Main trunk growing through fence which has been bolted to tree. Braced with limb from T7 Tree crown good health and vigour Compromised by surrounding trees	Physiological: Good Structural: Good	B1	Radius: 3.36m Area: 35.5m ²	Retain Protect during construction.
T7	Beech	Tree	Height (m): 20 Stem Diam (mm): 430 Spread: 0.5 Life stage: Early mature Rem. Contrib.: 40+ years	N: 6 E: 4 S: 4 W: 12	Limb at 0.5m growing in N direction – included junction. Braced with T6. Fence cutting into lower limb. Deadwood in lower canopy Compromised by surrounding trees Some damage occurred to lower limb but good occlusion.	Physiological: Good Structural: Fair	B1	Radius: 5.16m Area: 84m ²	Retain Protect during construction.
G4	Bird Cherry Hawthorn Whitebeam Holly English Oak	Group >10 trees	Height (m): 4-15m Stem Diam (mm): 265, 155, 105, 140, 110, 80, 190, 200, 270, 800 Spread (m): 0.5-4	N: 3 E: 1 S: 3 W: 4	Stand generally showing good health and vigour. Good mix of species and a	Physiological: Fair to good Structural: Fair to good	B1	Radius: 2.8m Area: 24m ²	Retain Remove ornamental trees Manage Himalayan Balsam.

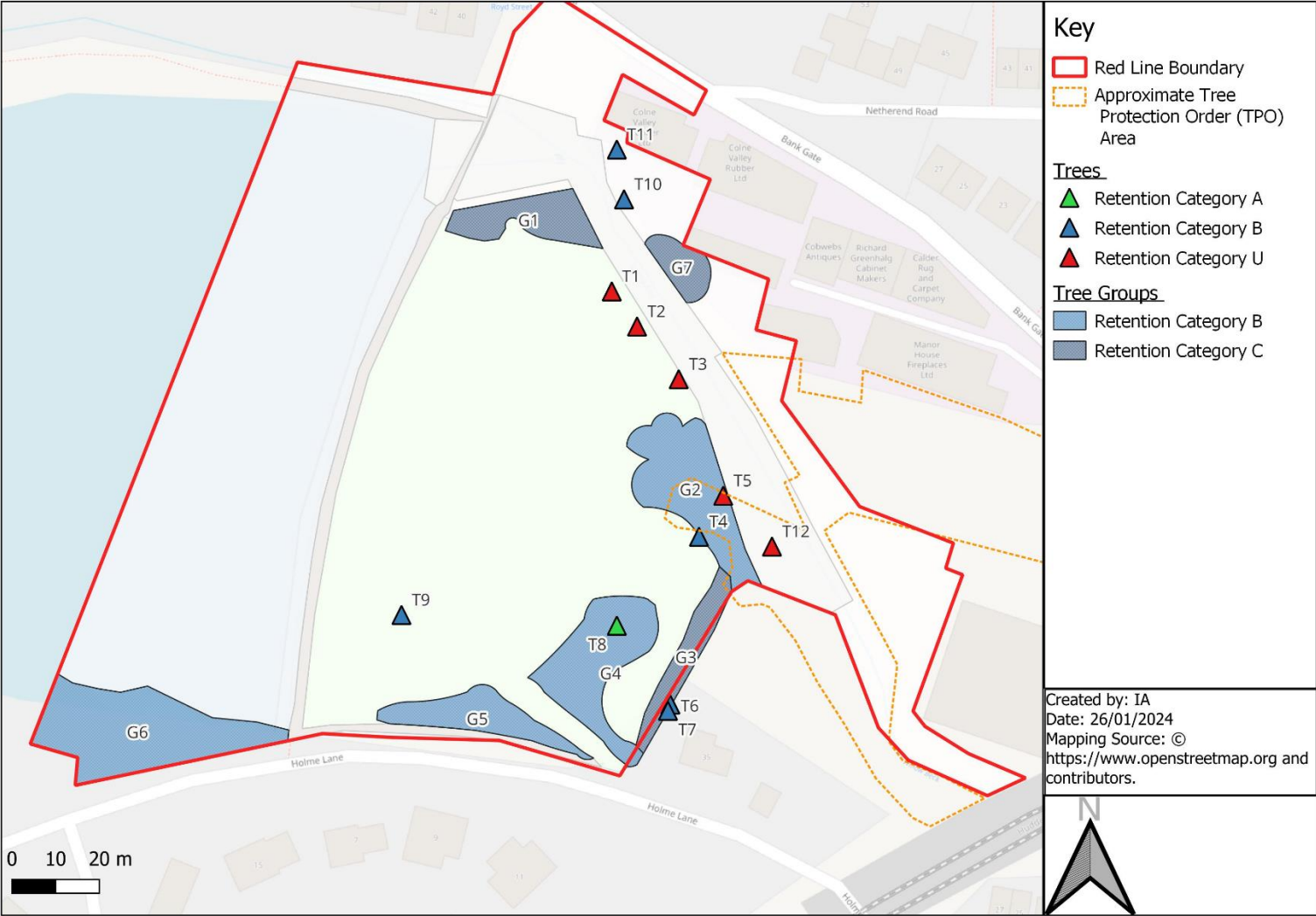
	Sessile Oak Goat Willow Privet Orange ball tree		Life stage: Young Rem. Contrib.: 40+ years		range of understory/canopy species Some garden escapes have developed near the road. Himalayan Balsam present.				
T8	Sessile Oak	Tree	Height (m): 21 Stem Diam (mm): 1270 Spread: 2 Life stage: Early Mature Rem. Contrib.: 40+ years	N: 10 E: 11 S: 8 W: 12	Multistem oak from 0.5m Good health and vigour Good occlusion where limbs have been lost or damaged	Physiological: Good Structural: Good	A2	Radius: 15m Area: 707m ²	Retain
T9	Sessile Oak	Tree	Height (m): 19 Stem Diam (mm): 1510 Spread: 3 Life stage: Early Mature Rem. Contrib.: 40+ years	N: 10 E: 11 S: 12 W: 10	Crown has good health and vigour No evidence of root movement Some deadwood in lower canopy due to shading. Mower has damaged some roots on the outer extremities, good wound occlusion. Split present in one limb Multistem oak from 0.5m Mowing damage to root system. Previously advised in 2021 to stop mowing under canopy, however, this is still happening which has resulted in some root damage. Evidence of historic rope swings, rope has been left on limbs which is girdling them.	Physiological: Good Structural: Fair	B1	Radius: 15m Area: 707m ²	Retain Crown reduce by 20% to reduce wind sail. Remove deadwood. Remove ropes where possible. Stop grass cut by ride on mowers underneath tree. Explore option of strimming 1-2 per year. Continue to monitor

G5	Sessile Oak Sycamore Ash Goat Willow Rowan Hawthorn Downy Birch	Group >10 trees	Height (m): 4-8 Stem Diam (mm): 80, 80, 90, 80, 100, 80, 85, 80, 90, 230 Spread (m): 1-2 Life stage: Young Rem. Contrib.: 40+	N: 3 E: 1 S: 2 W: 3	Self set group of trees growing on rocky outcrop below retaining wall for road. Diverse mix. Good health and vigour	Physiological: Good Structural: Good	B1	Radius: 1.2m Area: 4.5m ²	Retain but recommend removal of Sycamore which is growing underneath power line.
G6	Goat Willow Downy Birch Silver Birch Sessile Oak	Group	Height (m): 8-12 Stem Diam (mm): 350, 200, 250, 210, 180, 150 Spread: 1-3m Life stage: Young to Early mature Rem. Contrib.: 40+ years	N: 4 E: 3 S: 3 W: 3	Mixed stand growing on small embankment between road and reservoir Past management evident on road side.	Physiological: Fair to Good Structural: Fair to Good	B1	Radius: 2.7m Area: 22.5m ²	Retain
T10	Oak Sp.	Tree	Height (m): 12m Spread: 2 Life stage: Early Mature Rem. Contrib.: 40+ Years	N: 7 E: 8 S: 5 W: 7	Good health and vigour. Growing on rocky outcrop.	Physiological: Good Structural: Good	B1	Not applicable – to be removed as part of scheme	Required to be removed for project
T11	Holly	Tree	Height (m): 10m Spread (m): 4 Life stage: Early Mature Rem. Contrib.: 40+ Years	N: 4 E: 4 S: 3 W: 3	Good health and vigour Growing on rocky outcrop	Physiological: Good Structural: Good	B1	Not applicable – to be removed as part of scheme	Required to be removed for project
G7	Holly	Group of 4 Holly	Height (m): Average 6m Spread: Average 1.5m Life stage: Young Rem. Contrib.: 40+ Years	N: 2 E: 2 S: 3 W: 2	Small stand of multistem Holly and one additional species which was not identified due no available access. Growing on rocky outcrop.	Physiological: Good Structural: Good	C1	Not applicable – to be removed as part of scheme	Required to be removed for project
T12	Crack Willow	Tree	Height (m): #6 Stem Diam (mm): 900# Spread: 0.5 Life stage: Mature Rem. Contrib.: 20+ years	N: 13# E: 5# S: 12# W: 12#	Failed multistem Willow. 5 large stems have failed including 3 which have failed across the river. Large splits in multiple limbs. Failed limbs showing regenerative growth.	Physiological: Poor Structural: Poor	U	Not applicable – to be removed as part of scheme	Collapsed across river. Coppice and protect stump during construction.

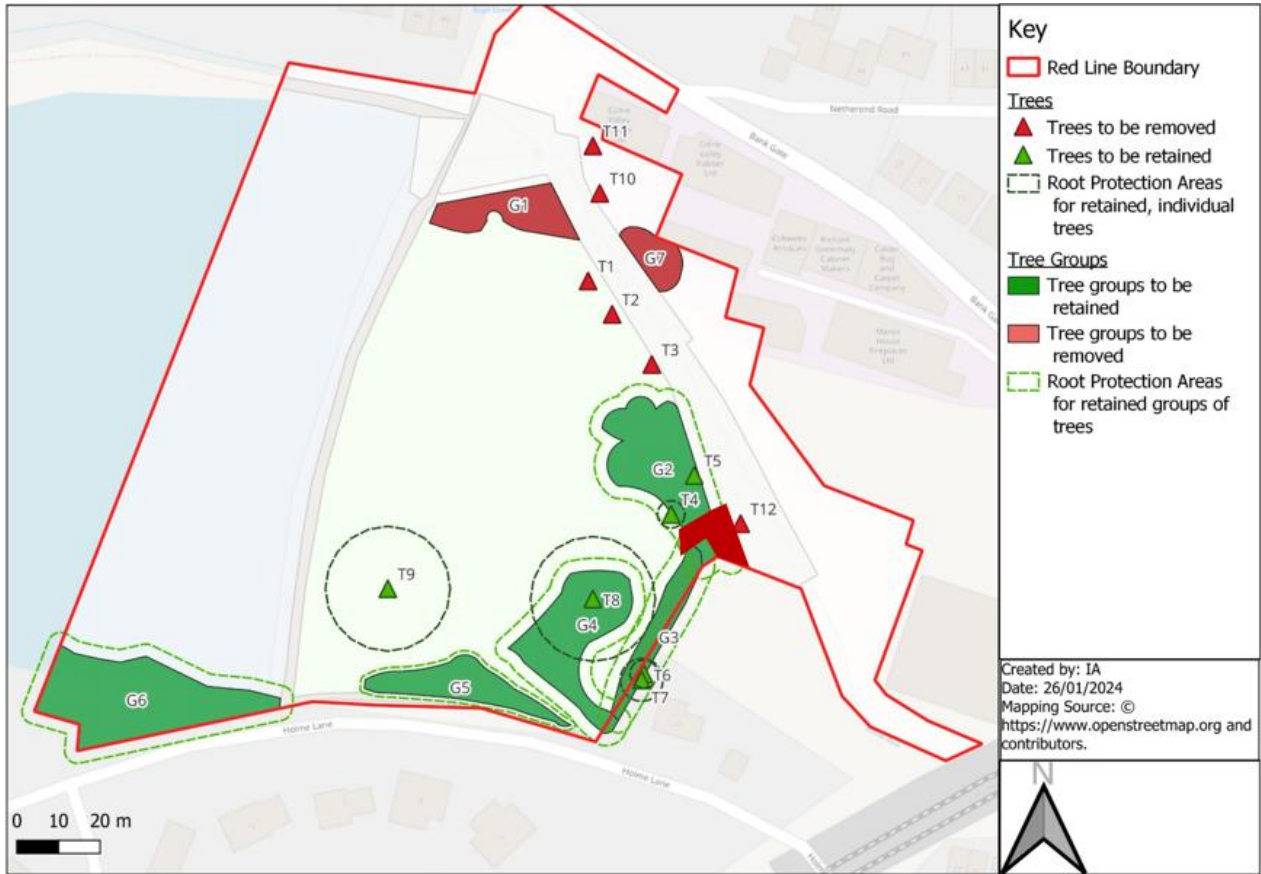
BS5837:2012 Table 1 – Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	- Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) - Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline - Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see [BS5837:2012] 4.5.7.</i>			
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	

Appendix 2 - Tree Constraints Plan



Appendix 3 - Tree Removal and Tree Protection Plan



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