

Arboricultural Assessment Survey 2024



Arboricultural Assessment of trees within boundary of Ysgol Rhud Y Grug Primary School, Merthyr Tydfil.

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1.0 Introduction

- 1.1 The following report has been commissioned by Merthyr Tydfil County Borough Council Parks department. Its aims to provide a health and safety report and provide viability for tree retention within the boundaries of Ysgol Rhud Y Grug Primary School, Merthyr Tydfil.
- 1.2 The report is aimed at creating a balance between existing trees and existing land uses. In particular regarding the maintenance of trees along the main entrance highway and any conflict between the current trees any associated damage or hazards that have arisen/arising. It will also create a catalogue of existing trees for management strategies, recommendations for improvements to specimens and stock.
- 1.3 The trees in question will be individually assessed for physiological and structural conditions and appropriate strategies drawn for sustainable tree management, whilst maintaining the volume of trees and tree cover in the area. Whilst every healthy tree would ideally be retained, other factors such as longevity of contribution, associated damage caused and other issues must also be addressed.
- 1.4 The tree assessments consist of visual inspections at ground level only and are intended to identify hazards, structural flaws or defects that may cause issues to occur within the next 12 months.
- 1.5 It must be clearly emphasized that no tree is entirely safe, even a perfectly healthy tree of symmetrical and uniform composition with no structural flaws may be damaged or uprooted by severe weather anomalies.
- 1.6 This report is based upon data collected by Andrew Taylor; the data was collected on the 12th February 2024. The weather was cold and damp, visibility was good.

1.7 It must be made clear that whilst every attempt has been made to provide an accurate assessment of the trees condition at the time of inspection, no responsibility can be accepted for damage or injury sustained as a result of the failure of any tree due to faults that are not apparent upon a visual ground level inspection, or to faults developing subsequent to the survey. Similarly, no liability can be accepted for defects hidden from view by ivy or dense foliage or certain features that may provide evidence of decay, such as fungi or insect emergence holes but may not be evident at the time of inspection. Only those features that are apparent at the time of inspection could be assessed.

1.8 The Survey located in the report records each tree in the specified area, whether they require works or not, each is individually assessed with estimated measurements, defects or other noteworthy characteristics, recommendations for retention, remedial works or removal of the individual tree. Only trees greater than 150mm will be assessed.

1.9 Trees are dynamic, living organisms and their condition can change rapidly as they grow and can be affected by external conditions and therefore this report is valid for a period of 12 months. This period may be reduced if significant changes occur to the trees or the ground conditions close to them.

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2.0 Tree Survey Details

Client Name –	Merthyr Tydfil County Borough Council Education department Unit 5, Pentrebach Merthyr Tydfil
Site –	Ysgol Rhud Y Grug, Merthyr Tydfil
Date of Inspection –	12 th February 2024
Surveyor –	Andrew Taylor
Purpose of Survey –	To collect data and implement management recommendations for safe access into the park, increase longevity of current tree stock, replace poor stock and advise to achieve a sustainable tree stock.
Survey method –	This tree assessment comprised a visual inspection carried out at ground level only . It was intended to identify distinct defects and other failure-prone characteristics of the trees, where these features might give rise to hazards within the near future. Measurements and details for classification were also noted.
Weather -	Weather was cool and damp, visibility was good.

2.1 Site Maps and Plans-



Map 1: Overview of area surveyed within school boundaries.



3.0 Tree details

Explanation of terms

Tree I.D Number - Individual identification tag number of each Specimen

Tree Species - Botanical/scientific name for tree species

Tree Height - Approximate height of specimen (Meters (m))

Tree Age Class - Young trees **(Y)** - age less than one third of life expectancy
Semi Mature trees **(SM)** - One to Two thirds of life expectancy
Mature trees **(M)** - Over two thirds life expectancy
Over Mature trees **(OM)** - Over two thirds life expectancy and health in decline
Veteran **(V)** - trees at or exceeding life expectancy

Tree Width - Measures the diameter at one meter above ground level.

Physiological Condition - Categorised as Dead, Poor, Fair or Good

Structural Condition - More detailed description of tree health including physical defects and levels of decay

Management Recommendations - Details of tree work that is required

Work Priority - Timescale given for recommended works to be completed.

Tree labelling - Trees were tagged sequentially and comprised number tags from 2421 to 2443 for individual identification.

3.1 Classification of severity and reoccurrence of inspection.

- 3.1.1 All trees within the boundaries of the school were assessed have been individually tagged and recorded. These trees should be re-inspected every year and monitored for and significant structural change or pathogen development. These trees are in high footfall areas, which have a high likelihood of incidence if an issue arose.
- 3.1.2 This survey is to a specification regarding the safety and maintenance of council owned trees. Trees interfering with the local highway or footpaths will fall under annual routine maintenance, although a full condition survey will be conducted to investigate any other issues.

4.0 Re-Planting

The Specification for this survey states that parks and schools should maintain a healthy tree stock that it is sustainable. This survey will assess the spacing, physiological and structural factors of each tree. It is a likely consequence that a number of trees may have to be removed to increase the longevity of others and decrease pathogen effectiveness.

Land use is of upmost importance in amenity areas and a balance must be struck between tree retention and ongoing sustainable usage. Specific replanting schemes/plans should be formulated as a separate document by the landowners, with care taken into species selection, location and final specimen size.

Trees of a good standard and which present little issues and conflict should be retained and protected as much as possible. Some trees may be of a poor standard and some may offer little ecological benefits or long term remaining contributions for the area. Therefore early management and reallocation of tree stock within the boundaries may reduce conflict, increase the longevity of remaining and newly planted trees and insure enjoyment for future generations.

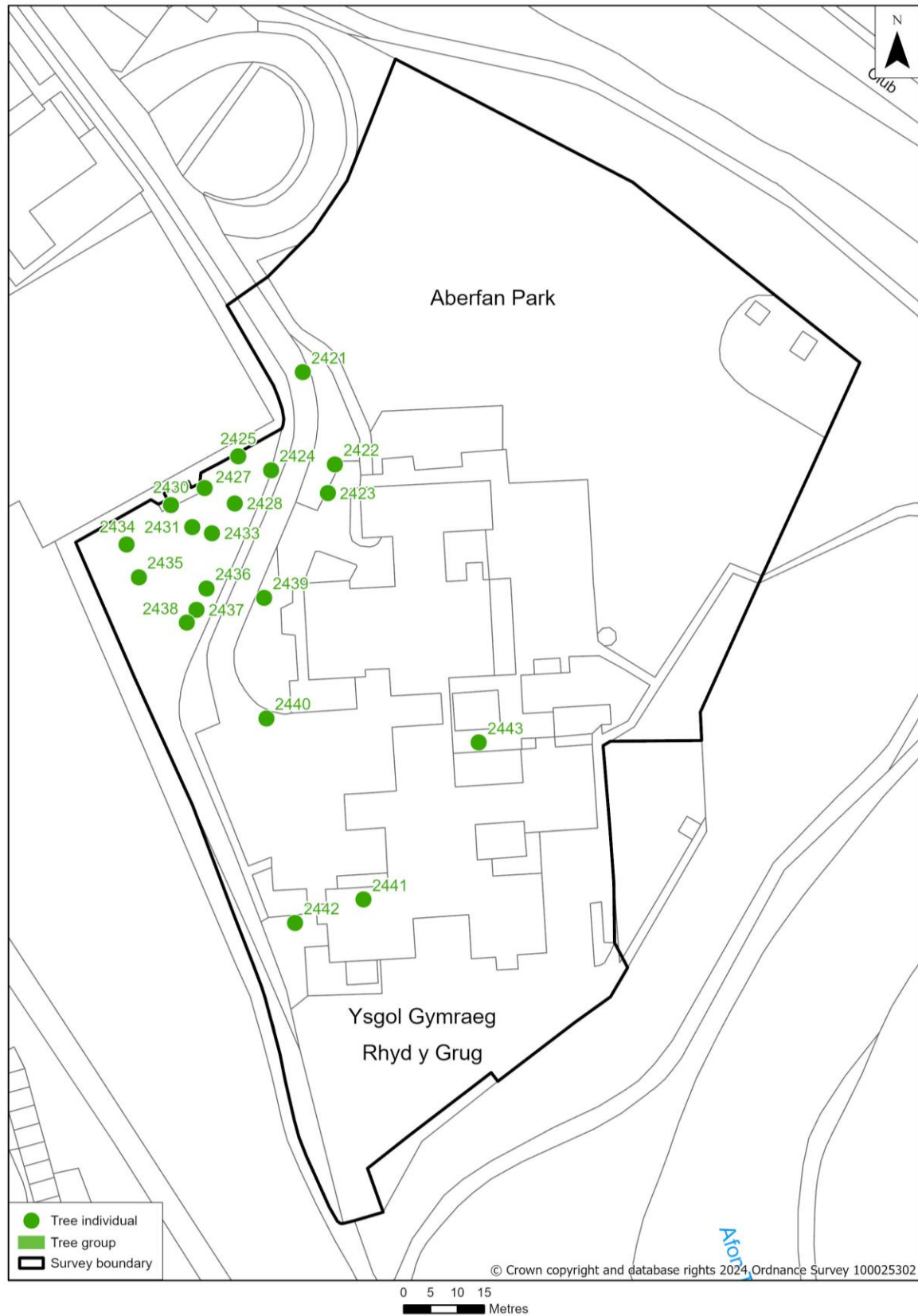
5.1 Tree survey

Tree ID	Height (m)	Age Class	Width (mm)	Priority	Structural Condition	Common Name	Physiological Condition	Recommendations	Species
2421	14	M	850		Good form, raised rooting from ground conditions, no major issues	Copper beech	Good		Fagus sylvatica purpurea
2422	3	M	400		Good, no major issues	Weeping cherry	Good		Prunus pendula
2423	10	SM	550		Good form, stress crack appearing below codominant union of main stems.	Norway maple	Good		Acer platanoides
2424	18	M	900		Good, large limbs with no obvious defects, sheltered by neighbouring cypress	London plane	Good		Platanus x hispanica
2425	9	Y	300		Good straight bole and small limb, bolting for light, no major issues	Lawson cypress	Good		Chamaecyparis lawsoniana
2427	6	Y	150		Good, small straight hole, no major issues	Lawson cypress	Good		
2428	6	Y	220		Fair, divides into 3 stems at 2meters, small unions, low mechanical forces.	Lawson cypress	Good		Chamaecyparis lawsoniana
2430	14	SM	680		2 stemmed from base, tall thin, sheltered by grouping, poor union at base	Lawson cypress	Good		Chamaecyparis lawsoniana
2431	6	Y	350		3 stemmed from 1 meter, forms under canopy, limited mechanical forces	Lawson cypress	Good		Chamaecyparis lawsoniana

Tree ID	Height (m)	Age Class	Width (mm)	Priority	Structural Condition	Common Name	Physiological Condition	Recommendations	Species
2433	22	M	700		Good straight bole to 6 meters, then poorly formed v shaped twisted union. Suppression has led to top heavy form. No current signs of stress on union, epicormic growth at base	Large leaved lime	Good	Remove high codominant stem to prevent risk of failure, clear epicormic growth at base.	Tilia platyphllos
2434	16	M/OM	750		Large v shaped union at 1 meter, sheltered by grouping	Whitebeam	Good	Remove stem with poor union	Sorbus aria
2435	18	M	900		Good form, strong unions, no major issues	Sycamore	Good		Acer pseudoplatanus
2436	20	M	850		Good, tall slender form, no major apparent issues, ivy colonisation at base	London plane	Good		Platanus x hispanica
2437	20	SM	700		Good form, tall straight bole with no apparent issue	Large leaved lime	Good		Tilia platyphllos
2438	18	M	1050		Major leader lost, probably from exposure to elements, large limbs over main access	London plane	Good	monitor	Platanus x hispanica
2439	9	SM	550		Good, no major issues	Norway maple	Good		Acer platanoides
2440	3	M	450		Good, typical low form	Weeping cherry	Good		
2441	7	Y	450		Good crown shape, poor unions, low risk at present due to low mechanical forces, monitor	Goat willow	Good	Monitor	Salix caprea

Tree ID	Height (m)	Age Class	Width (mm)	Priority	Structural Condition	Common Name	Physiological Condition	Recommendations	Species
2442	8	Y	450		Good stem divides rapidly at 2meters, typical of species, crown beginning to interfere with building	Hornbeam	Good		Carpinus betulus
2443	3	M	400		Good, typical, no major issues	Weeping cherry	Good		Prunus pendula

5.2 Tree location maps



Map 2 – Tree ID Locations

5.3 Photographs

Works Required



Image 1: Poor Union on Tree ID- 2434 that should be removed to avoid uncontrolled failure, target area is used by children.



Image 2: Tree Tag 2433: Union pictured has poor connective tissues and is located over main access road, codominant stem should be removed to reduce risk.



Image 3: Willow structure to the rear of the Building needs reducing and re-weaving to reform structure.

6.0 Recommendations

- 6.1 All of the remedial tree works are detailed in the tree survey table and are located in section 5.1. In total 22 trees were surveyed, with 0 recommended for removal.
- 6.2 2 trees in the report were detailed for remedial works which involves the removal of large limbs to prevent the unions failing into the outdoor classroom area or entrance road. The willow structure to the rear of the building also needs to be recut and reformed.
- 6.3 Most of the trees surveyed were healthy and posed no current significant issues.
- 6.4 Many of the trees surveyed have significant raised roots; this may have been caused by incorrect original planting depths, poor ground conditions or the trampling overtime of children playing. This poses a limited current significant risk but trip factors do exist. Solutions to this may include mulching at the base of trees to protect the roots, and mask the trip factors.
- 6.5 3 trees were highlighted in the report to be monitored, these trees have been identified as having a defect but it is not serious enough to warrant reactive management. However these poor union joints will support heavier loads and increased mechanical forces as the trees develop in size and weight.
- 6.6 A balance must be struck to ensure that equilibrium can be established with the number of tree stock within open areas. Trees are important both aesthetically and ecologically in areas but need to be located in adequate spacing. The correct selection of both tree species and their location are vital components if the tree is to mature. It is recommended that to maintain the tree stock in Ysgol Rhud Y Grug at least 3 trees need to be planted. This number accounts for the ongoing development and biodiversity of council owned areas and incorporates a 60% survival rate of semi mature plantings to maturity.
- 6.7 Suitable areas for planting are available within Ysgol Rhud Y Grug primary school; they should be planted with nursery stocks that are semi mature in nature. This will limit the likelihood of importing infected stock and increase the likelihood of

successful establishment. Species can be varied as is the nature of public authority areas however it would be advised to plant trees with a minimum of 2 meter clearance of footpaths and clear of areas of contention to avoid future issues.

- 6.8 Areas advised for planting would be alongside the fence line to the north of the school in an open grass area. There is plenty of room in this location of trees to develop with little impact on current land uses.
- 6.9 Advised species for planting this area may include the small leaved lime (*Tilia cordata*), Common Beech (*Fagus sylvatica*), Whitebeams (*Sorbus spp*), Silver birch (*Betula pendula*) or London plane (*Platanus x Hispanica*). These are species that are currently within the site and indicate good compatibility between species and the area, hopefully leading to successful establishment.
- 6.10 *Any Works undertaken from the recommendations in this report should only be undertaken by suitable contractors working in accordance with 'BS 3998' 'British Standard Recommendations for Tree Works 2010'.*

7.0 Legal Constraints

TPO's – Prior to any works commencing the client should check with the local authority that the trees are not covered by a tree preservation order or within a conservation area or by any other planning conditions.

Felling licence – even when no specific legal protection exists it may be necessary to obtain a felling licence, these are generally associated with the forestry commission and developed to control the amount of trees/timber in the landscape of particular areas.

Birds and Bats – it is the contactors responsibility to inspect trees prior to carrying out works. Works must commence outside of the bird nesting season (March and July) and comply with the wildlife and countryside act 1981.

Duty of care – Attention is drawn to the provisions of the occupiers liability Acts. Which place a duty of care upon landowners/occupiers to ensure the safety of neighbours and others entering their land. There is a special responsibility to ensure the safety of minors who may be unaware of any dangers. Annual or regimented inspections of trees by a competent person, together with implementation of any recommendations, should ensure compliance with legislation regarding tree safety.

8.0 Glossary of terms

Bark	All tissue outside of the trunk, roots, stems branches and twigs.
Cambium	A layer of actively dividing cells between xylem (wood) and phloem tissues that is responsible for the secondary growth of stems.
Canopy	The part of the tree composed of leaves and twigs.
Cavity	An open wound characterized by the presence of decay and causing a hollow.
Crown	The main foliage carrying part of the tree.
Crown lifting	The removal of lower branches to a specified height.
Crown reduction	The shortening of vertical and lateral branches to proportionally reduce the size of the crown.
Crown Thinning	The balance removal of secondary or minor live branch growth to reduce the density of foliage within the crown, without altering the trees size and shape.
Decay	The process of degradation of woody tissues by fungi and bacteria (Rot).
Dominant	A dominant tree is a tree taking other trees light, dominating the available resources.
Failure	A partial or total fracture of wood tissue or loss of cohesion between soil and root or Limb and main stem.
Hazard	Anything that has the potential to cause harm.
Included bark	Bark of neighbouring parts of the tree that are face to face, resulting in the lack of wood union and a subsequent weakness.
Limb reduction	The shortening of a specific branch usually be a specific amount.
Mature	A plant that will respond to flower inducing conditions and that is fully physiologically devolped.
Pruning	The removal of cuttings or twigs, branches or roots.
Risk	The likelihood of potential harm from a hazard becoming actual harm.
Rot	See decay.
Root	Part of the tree that contains woody and non woody tissues to absorb water and minerals from the soil, gases from the atmosphere and support the trunk and crown.

Significant	Relates to health and safety- describing a condition, state, hazard or risk that is deemed to exceed accepted standards requiring remedial or preventative action.
Stem	The principle portion of the woody structure (Trunk) or one of a number of such portions with similar size or status.
Suppressed	Trees that have been over shadowed and whose crown development is restricted by neighbouring trees
Target	The area which is likely to be impacted by total or partial failure
Tree	A woody plant that typically has a single self-supporting stem , attaining a height in excess of 4 meters in maturity.
Trunk	A single main self-supporting stem of a tree.
Union	The joint between limbs or limbs and the main stem.
Wound	An injury that induces a response by the tree to compartmentalize internally.

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