

Arboricultural Method Statement

Wynnstay Technology Park, Ruabon, Wrexham, LL14 6EN

Prepared for:

CASTLEMEAD GROUP LIMITED

Our Ref: 23/AMS/WXM/315

Planning Ref: P/2019/0805 – Conditions 21 & 22

November 2023

Tree Solutions Ltd

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SEQUENCE OF OPERATIONS

From commencement of the development, the following methodology shall be implemented in the manner and sequence described:

1. Tree surgery works
2. Pre-contract site meeting – ‘Toolbox Talk’
3. Erect temporary tree protective fencing
4. Excavation and reprofiling embankment adjacent to woodland sections
5. Main construction phase
6. Removal of temporary fencing
7. Landscaping within RPA of trees
8. Arboricultural site supervision

1. Tree Surgery Works

1. Before the erection of the temporary protective fencing, all tree works shall be implemented in accordance with the approved Forester and Arborist Services Arboricultural Impact Assessment dated 11.11.2019
2. All possible efforts must be made to prevent damage to retained trees including potential root incursion or compaction caused by vehicle access.
3. All arboricultural works shall conform to the recommendations of BS 3998 (2010) ‘Recommendations for Tree Work’
4. All operatives shall be equipped with and use personal protective equipment (PPE) in accordance with current Health & Safety Executive current directives and industry codes of practice.
5. Performance of all arboricultural operations and use of equipment shall be in accordance with current Health & Safety Executive current directives and industry codes of practice
6. Any additional access facilitation pruning required shall be undertaken by qualified tree contractors and conform to the recommendations of BS 3998 (2010) ‘Recommendations for Tree Work’.

2. Pre-Contract Site Meeting

1. The Arboricultural Clerk of Works (ACoW) to undertake a ‘toolbox talk’ outlining working methods in relation to trees prior to any construction activity on site. Those to be present are:
 - Arboricultural Clerk of Works – (ACoW)
 - Client
 - Main Contractor

3. Erect Temporary Tree Protective Fencing

1. Prior to commencement of any construction, ground preparation, excavation, or material deliveries the main contractor shall erect the temporary protective fencing as detailed in the ‘Tree Protection Specification’ and in the location indicated on the Tree Protection Plan.
2. Photographic evidence of tree protective fencing will be issued to Wrexham Council Tree Officer for approval upon completion. Any damage occurring to protective fencing during the development phase shall be made good by the main contractor.

4. Excavation and Reprofiling Embankments Adjacent to Woodland Sections

1. All works shall be undertaken from working outside the RPA of trees and under supervision of ACoW
2. There shall be no storage of construction material, plant, site accommodation or equipment in any area designated as the Root Protection Area (RPA) and enclosed by temporary protective fencing
3. Any undulation of land within the RPA of trees shall be filled with a 50-50 mix of sharp sand and imported topsoil in accordance with BS 3882 (2015). Fill level must not exceed 100mm and to be spread by hand
4. Movement of material within the RPA shall be by hand using wheelbarrows. The use of any mechanical excavator or dumper within the RPA of trees is strictly prohibited
5. Any exposed roots shall be pruned back to a side branch, by use of sharp saw or secateurs by the project arboricultural consultant and not construction personnel
6. Care shall be taken to avoid any damage to branches from the mechanical backhoe raising and lowering soil profiles. Any damage shall be reported to the ACoW where appropriate remedial action will be assessed

5. Main Construction Phase

1. There shall be no storage of construction material, site parking, site accommodation or equipment in any area designated as the Root Protection Area (RPA) and Construction Exclusion Zone (CEZ) and enclosed by Temporary Protective Fencing
2. No materials that are likely to have an adverse effect on tree health such as oil, bitumen or cement will be stored or discharged within 10 metres of the trunk of a tree that is to be retained. No fires will be lit
3. The site agent shall supervise deliveries by self-loading crane, with vehicles positioned in such a manner that retained trees are not at risk of damage
4. Any damage to trees because of construction/engineering work will be logged and reported to the project ACoW

Avoiding Damage to Stems and Branches

- Care shall be taken when planning site operations in proximity to trees to ensure that wide or tall loads or plant with booms, jibs and counterweights can operate without coming into contact with retained trees. Such contact can result in serious injury resulting in safe retention impossible

Cement Mixing

- The cement mixer will be laid on top of plywood boards in a position outside the RPA of any trees. The mixer will be kept in this position throughout all development work.

On Site Storage of Spoil and Building Materials

- Prior to and during all site construction works no spoil will be stored within the Root Protection Area of any tree on or adjacent to the site even if proposed site work is to be within the crown spread. Any encroachment within this protected area will only be by the prior agreement of the LPA Arboricultural Officer

6. Remove all Temporary Tree Protective Fencing

1. Tree Protective fencing will only be removed upon completion of all engineering/construction work within each phase and once all machinery associated with the works has left site.

7. Landscaping within RPA of Trees

1. There shall be **no rotovating** of ground within any area designated as a Root Protection Area (RPA) and Construction Exclusion Zone (CEZ) and enclosed by Temporary Protective Fencing.
2. Other than the approved works, there should be no additional hard landscaping works or excavation for cables, or any other service should be installed within the Root Protection Area (RPA) and Construction Exclusion Zone (CEZ) without the written consent of the LPA.

8. Arboricultural Site Supervision

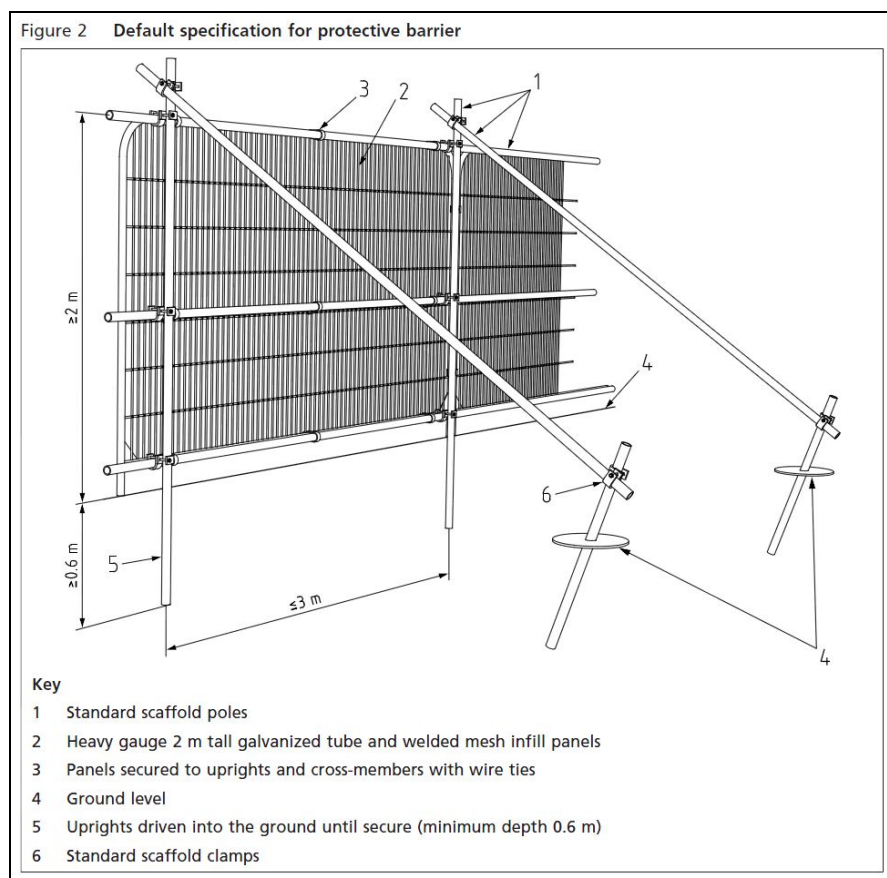
1. The erection of all tree protection measures outlined in this AMS and as indicated on the Tree Protection Plan will be inspected by the contract ACoW immediately after erection. Photographic evidence of the location and specification of all protective fencing will be forwarded to Wrexham Council Tree Officer upon completion.
2. All proposed work within any designated RPA will be overseen by the ACoW with photographic records taken and signed inspection report emailed direct to Wrexham Council Tree Officer for approval
3. Reprofiling embankments adjacent to woodland section to be undertaken under supervision of ACoW

TREE PROTECTIVE FENCING

- 1 Before the commencement of any site excavations and subsequent construction works (other than those set out in the schedule of tree works contained in this document), protective fencing will be erected as detailed on the Tree Protection Plan and as specified below.
- 2 The fencing will consist of a scaffold framework in accordance with Figure 2 of BS 5837 – 2012 (illustration below) comprising a metal framework, both vertical and horizontal, well braced to resist impacts. Vertical tubes will be spaced at a maximum interval of 3m. Onto this, weldmesh panels shall be securely fixed with wire or scaffold clamps. Weldmesh panels on rubber or concrete feet are not considered resistant to impact and for this reason will not be used. The site manager or other suitably qualified appointed person will be responsible for inspecting the protective fencing daily; any damage to the fencing or breaches of the fenced area will be rectified immediately.
- 3 Clearly legible weatherproof signage, stating “Protected Trees – Exclusion Zone” shall be attached to the fencing 1.5m from the ground, facing out of the Tree Protection Zone located at regular intervals along the fence line (as Appendix 3).
- 4 The fencing will remain in place until completion of all site works and then only removed when all site traffic is removed from site
- 5 Other than works detailed within this method statement or approved in writing by the Local Planning Authority (LPA), no works including storage or dumping of materials shall take place within the exclusion zones defined by the protective fencing.

Protective Fencing Detail

1. **Magenta** - Trees



Arboricultural Clerk of Works (ACoW)

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Mobile: 07766 774508
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Appendix One
Tree Survey Schedule

TREE SURVEY SCHEDULE (BS5837: 2012)

Tree Solutions

Arboricultural Consultants

SITE:	LAND AT WYNNSTAY TECHNOLOGY PARK, RUABON
CLIENT:	CASTLEMEAD GROUP LTD
BRIEF:	ARBORICULTURAL METHOD STATEMENT

SURVEYOR:	A HENDERSON
ASSESSMENT DATE:	NOV 2023
VIEWING CONDITIONS:	GOOD
JOB REFERENCE:	23/AIA/WXM/315

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TREE NO. T - Tree G - Group H - Hedge	SPECIES (COMMON NAME)	AGE	HEIGHT (m) + CROWN CLEARANCE/ DIRECTION OF GROWTH (N.S.E.W)	N	S	E	W	STEM/ MULTI-STEM* DIA.(mm)	VITALITY	COMMENTS	MANAGEMENT	CATEGORY & SUB-CATEGORY GRADING BS 5837	BS 5837 RADIUS (m) RPA (m²)
W1	Birch, Hawthorn, Goat Willow, Hazel, Sycamore, Ash	SM - EM	≤14 0					≤300	G	- Linear mixed group planted as screen to former site industrial use - On land raised above site level and drops down from east to west - Predominantly Hazel along eastern boundary with site - Ash showing reduced vigour and signs of Chalara Ash Dieback - More mature Sycamore to north - Would benefit from silvicultural thinning to favour best stems and allow better establishment to maturity - E.R.C. 20+	Remove trees approved for access road and reduce eastern edge back where required all as per approved plans	B2	3.6 41m²
W2	Cherry, Ash, Hazel, Goat Willow	SM - EM	≤9 0					≤200	M	- As W1, wooded plantation group planted as screen along northern boundary - Located at top of steep embankment - Ash is decline - E.R.C. 20+	Requires thinning and Ash removed	B2	2.4 18m²

HEADINGS & ABBREVIATIONS

TREE NO.

SPECIES:

AGE RANGE/LIFE STAGE:

HEIGHT:

CROWN SPREAD:

CROWN CLEARANCE & DIRECTION OF GROWTH:

STEM DIA/MULTI-STEM DIA:

VITALITY:

E.R.C. = ESTIMATED REMAINING CONTRIBUTION:

BS 5837 CATEGORY & SUB-CATEGORY GRADING:

BS 5837 RADIUS & BS 5837 RPA:

REFERENCE NUMBER. REFER TO PLAN OR NUMBERED TAGS WHERE APPLICABLE (T = TREE, G = GROUP, H = HEDGE)

COMMON NAME (LATIN NAMES AVAILABLE ON REQUEST)

Y = YOUNG, SM = SEMI MATURE, EM = EARLY MATURE, M = MATURE, PM = POST MATURE

ESTIMATED AND RECORDED IN METRES. APPROXIMATELY 1 IN 10 TREES ARE MEASURED USING A CLINOMETER AND THE REMAINDER ESTIMATED AGAINST THE MEASURED TREES

MAXIMUM CROWN RADIUS MEASURED TO THE FOUR CARDINAL COMPASS POINTS FOR SINGLE SPECIMENS ONLY (MEASUREMENT FOR TREE GROUPS - MAXIMUM RADIUS OF THE GROUP)

HEIGHT IN METERS OF CROWN CLEARANCE ABOVE ADJACENT GROUND LEVEL (TO INFORM ON GROUND CLEARANCE, CROWN/STEM RATIO AND SHADING)

STEM DIAMETER - MEASURED AT APPROXIMATELY 1.5 METRES ABOVE GROUND LEVEL OR A COMBINATION OF STEMS FOR MULTI-STEMMED TREES

A MEASURE OF PHYSIOLOGICAL CONDITION. D = DEAD, MD = MORIBUND, P = POOR, M = MODERATE, G = GOOD

RELATIVE USEFUL LIFE EXPECTANCY (YEARS)

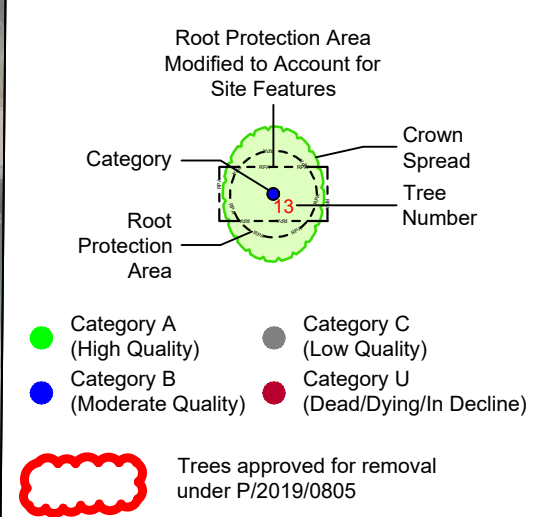
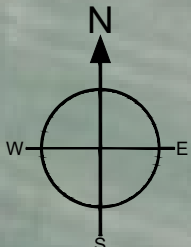
A = HIGH QUALITY AND VALUE, B = MODERATE QUALITY AND VALUE, C = LOW QUALITY AND VALUE, U = UNSUITABLE FOR RETENTION (SUB-CATEGORY REFERS TO ARBORICULTURAL, LANDSCAPE AND CULTURAL/CONSERVATION VALUES)

PROTECTIVE DISTANCE - RADIUS FROM THE CENTRE OF THE STEM TO THE LINE OF TREE PROTECTION (CONSTRUCTION EXCLUSION ZONE - CEZ) AND PROTECTIVE BARRIER ROOT PROTECTION AREA - BS 5837 (2012) ANNEX D (THE RECOMMENDATIONS STATE THAT THE RPA SHOULD BE CAPPED AT 707 M²) NOTE – ALL CALCULATIONS ROUNDED TO NEAREST DECIMAL

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 4.5.7.</i>			See Table 2
	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)	See Table 2
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	See Table 2
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	See Table 2

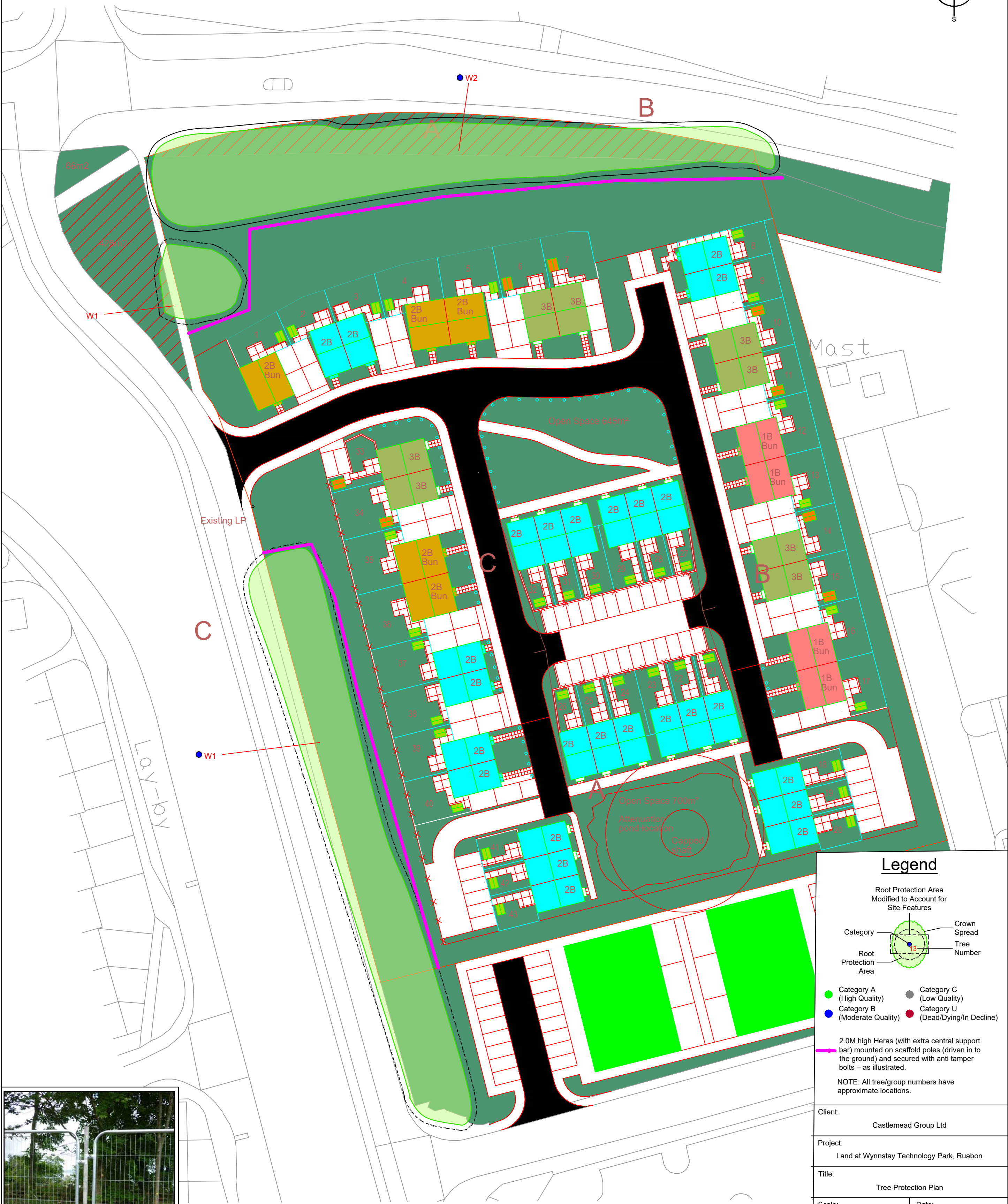
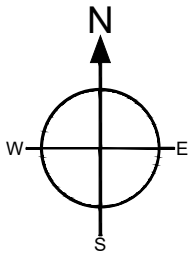
Appendix Two
Tree Constraints & Removals Plan



Client:		Castlemead Group Ltd	
Project:		Land at Wynnstey Technology Park, Ruabon	
Title: Tree Constraints and Approved Tree Removal Plan			
Scale: 1:500 at A2		Date: November 2023	
Drawn By: SD		Revision: -	
Job Ref: 23/AIA/WXM/315		Drawing No: 01	
Do not scale from this drawing all dimensions to be checked on site.			
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Appendix Three
Tree Protection Plan



Tree Protective Fencing Specification



PROTECTIVE FENCING. THIS FENCING MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND DRAWINGS FOR THIS DEVELOPMENT.



TREE PROTECTION AREA
KEEP OUT!
TOWNS & COUNTRY PLANNING ACT 1990
TREES INCLUDED IN THIS DEVELOPMENT ARE PROTECTED BY PLANNING CONDITIONS AND ARE THE SUBJECTS OF A TREE PRESERVATION ORDER.
CONTRACTORS OF A TREE PRESERVATION ORDER MAY BE SUBJECT TO PENALTIES.
ANY INCLUSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY.

Legend

- Root Protection Area
Modified to Account for
Site Features
- Category
- Root Protection Area
- Crown Spread
- Tree Number
- Category A (High Quality)
 - Category B (Moderate Quality)
 - Category C (Low Quality)
 - Category U (Dead/Dying/In Decline)

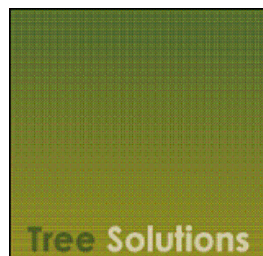
2.0M high Heras (with extra central support bar) mounted on scaffold poles (driven in to the ground) and secured with anti tamper bolts – as illustrated.

NOTE: All tree/group numbers have approximate locations.

Client:	
Castlemead Group Ltd	
Project:	
Land at Wynnstey Technology Park, Ruabon	
Title:	
Tree Protection Plan	
Scale:	Date:
1:500 at A2	November 2023
Drawn By:	Revision:
SD	-
Job Ref:	Drawing No:
23/AIA/WXM/315	02

Do not scale from this drawing all dimensions to be checked on site.

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Appendix Four
Tree Protection Sign



**PROTECTIVE FENCING. THIS
FENCING MUST BE
MAINTAINED IN ACCORDANCE
WITH THE APPROVED PLANS
AND DRAWINGS FOR THIS
DEVELOPMENT.**



**TREE PROTECTION AREA
KEEP OUT !**

**(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY
PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A
TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY
LEAD TO CRIMINAL PROSECUTION**

**ANY INCURSION INTO THE PROTECTED AREA MUST BE
WITH THE WRITTEN PERMISSION OF THE LOCAL
PLANNING AUTHORITY**