

MAXIOM DEVELOPMENT LTD

PLANTING PLAN & SCHEDULE

Plot 1a & 1b, Cwm Woods Grove, off Upper Colliers Row, Heolgerrig, Merthyr Tydfil, CF48 1DP

Item	Detail
Planning Reference	P/26/0049 – Construct 2 detached dwellings
Prepared For	Merthyr Tydfil County Borough Council – County Ecologist (Matt Davies) – in response to Memo 4 (02/09/2026), Comment 3. Copy: Certhia Ecology
Prepared By	Maxiom Development Ltd
Status	Issued for ecological review – Rev A
Date	19 September 2026

1. Introduction & Purpose

This Planting Plan and Schedule has been prepared by Maxiom Development Ltd in response to Comment 3 of the County Ecologist's Memo 4 (dated 02/09/2026), which states:

“General – a full planting plan is required for all proposed species and habitats including, but not limited to, the rain gardens and planting areas. Also need other information, for example, the numbers of specimens and planting distances for the hedgerow planting.”

It sets out the species schedule, specimen numbers and planting distances for all proposed planting across the Site – boundary hedgerow, replacement trees, rain garden planting areas, raised planters and garden amenity grassland – and should be read alongside:

- Landscape Plan 26-01-05 (current revision, supplied with this submission)
- Proposed Exterior Lighting, Plot 1a, Drawing 26-01-13 Rev 2, and Plot 1b, Drawing 26-01-14 Rev 2
- Drainage Details, Drawing 11188_501 Rev 03 (Vale Consultancy) – rain garden construction and SuDS planting build-up
- 1A-B Colliers Row – Preliminary Ecological Appraisal, Rev 3 (Certhia Ecology, July 2026)
- Tech Note – 1A-B Colliers Row – INNS Walkover (Certhia Ecology, 15/09/2026)
- Ecological Management Plan (EcMP), Landscaping, Habitat and Ecology Scheme (LHES) and Construction Environmental Management Plan (CEMP)

2. Documents Reviewed

Ref	Document	Rev / Date
1	1A-B Colliers Row – Preliminary Ecological Appraisal (Certhia Ecology)	Rev 3, July 2026
2	Memo 4 (Matt Davies, County Ecologist)	02/09/2026
3	Proposed Exterior Lighting, Plot 1a (Maxiom Development Ltd)	Dwg 26-01-13, Rev 2, 08/09/26
4	Proposed Exterior Lighting, Plot 1b (Maxiom Development Ltd)	Dwg 26-01-14, Rev 2, 08/09/26
5	Proposed Landscape Plan, Plot 1a & 1b (Maxiom Development Ltd)	Dwg 26-01-05, current revision supplied with this submission
6	Drainage Details (Vale Consultancy)	Dwg 11188_501, Rev 03
7	Tech Note – INNS Walkover (Certhia Ecology)	15/09/2026

3. Response to Memo 4 – Comment 3 (Cross-Reference)

Requirement Raised	Where Addressed
Full planting plan for all proposed species and habitats, including the rain gardens and planting areas	Sections 5–9 and Appendix A – schedules for trees, hedgerow, rain gardens, raised planters and garden grassland
Numbers of specimens and planting distances for the hedgerow planting	Section 7.3 – spacing, whips per metre, total whips per zone and per species; Section 10.2 – planting method
Landscape Plan 26-01-05 to be supplied	Supplied with this submission; basis of quantities in Section 3.1
Only 5no. trees shown – 9no. required for the 3:1 replacement ratio	Nine trees are shown on Dwgs 26-01-05, 26-01-13 and 26-01-14; species, size and position for each (T1–T9) in Section 6
PEA recommendation: extend hedgerow to the southern boundary with 4 additional trees, or provide off-site nearby	Achieved on-site – southern hedgerow extension (Zone B1) and nine trees in total. No off-site provision is required. Sections 6–7
Management period to be for the lifetime of the scheme, not 25 years	Section 12
Rain gardens and planting areas to be planted with native, drought-tolerant wildflower species	Section 8 – species, areas and plug quantities

3.1 Basis of Quantities

Quantities in this document are derived from the following, taken from Landscape Plan 26-01-05 and the site plan on Dwgs 26-01-13/14:

- Trees: nine in total, positioned on the site boundaries (Section 6).
- Western hedgerow (Zone A): 45m, as recorded in PEA Table 4 (approx. 44m when scaled from the drawings).
- Southern hedgerow extension (Zone B1): approx. 17m, as recommended at PEA para 4.2.6.
- Northern boundary hedgerow extension (Zone B2): approx. 17.5m, as referred to at PEA para 4.2.5.
- Rain gardens (Zone C): four planting areas, two per dwelling, totalling approx. 10m² (Section 8).

Note: Lengths and areas are scaled from the drawings, calibrated against the 45m western hedgerow and the dwelling footprint, and are accurate to approximately $\pm 10\%$. Final order quantities will be confirmed against the CAD source or on-site measurement before procurement. Hedge whip numbers are recalculated as length (m) $\times$ whips per metre; rain garden plug numbers as area (m²) $\times$ rate per m².

4. Site & Ecological Context Summary

The following is summarised from the Certhia Ecology PEA (Rev 3, July 2026) and informs the planting strategy:

- The Site comprised dense scrub (A2.1), tall herb/ruderal (C3.1) and a species-poor hedge with trees (J2.3.2) forming the western boundary (45m), and has since been cleared.
- The western hedgerow is a Priority Habitat and an 'important' hedgerow under the Hedgerow Regulations 1997, containing Ash, Hawthorn, Hazel and Sycamore, with stands of Snowberry (*Symphoricarpos albus*), a non-native, thicket-forming species that is not listed on Schedule 9.
- Three semi-mature trees (2no. Ash, 1no. Sycamore) were removed from the hedgerow. Replacement at a 3:1 ratio requires nine trees.
- The Site lies within a B-Line (pollinator corridor). The Cwm Glo a Glyndyrys SSSI (264m) is notable for waxcap fungi, and the Cwm Glo SINC (176m) supports Marsh Fritillary (PEA Tables 2 and 3).
- The hedgerow is the most valuable on-site feature, providing a commuting flightline for bats and nesting and foraging habitat for birds, Hedgehog, reptiles and invertebrates. Its retention, enhancement and extension is the primary driver of this planting strategy.

- Net Benefit for Biodiversity measures proposed: integrated bat and bird boxes, hedgehog ‘highways’ through garden fencing (130 × 130mm openings at 5m centres), and native, drought-tolerant species within planting areas.

5. Planting Strategy – Zones

Planting is organised into six zones (as previously accepted on plots 1 - 8):

Zone	Description	Location
A	Retained and enhanced hedgerow (existing)	Western site boundary, 45m
B1	New hedgerow extension	Southern site boundary, approx. 17m
B2	New hedgerow extension	Northern site boundary, approx. 17.5m
C	Rain garden / SuDS planting	Four planting areas, two per dwelling (per Dwg 11188_501)
D	Raised planter (rainwater outlet)	Rear of each dwelling
E	Garden amenity grassland / flowering lawn	Rear gardens, Plots 1a & 1b

Trees T1–T9 (Section 6) are sited within or adjacent to Zones A, B1 and B2.

6. Tree Replacement Schedule

6.1 Replacement Ratio

Item	Number
Semi-mature trees removed (2no. Ash, 1no. Sycamore)	3
Required replacement ratio	3 : 1
Total trees required	9
Trees provided (Dwgs 26-01-05, 26-01-13, 26-01-14)	9
TOTAL PROVISION	9 – ratio satisfied on-site

6.2 Tree Schedule

Species are selected from the PEA recommendations (para 4.2.6) and cross-checked against the Forest Research Ecological Site Classification (ESC) tool. All are native, deciduous species of high ecological value. No Ash (dieback risk, PEA footnote 4) or Sycamore is proposed. All four recommended species are used. Sessile Oak, the largest at maturity, is limited to one boundary-corner position. Species are alternated along the boundary so that the tree line remains staggered and the bat flightline is maintained (PEA para 4.2.7).

Ref	Common Name	Botanical Name	Size / Spec	Position (Dwg 26-01-05)	Zone
T1	Silver Birch	Betula pendula	Standard, 8–10cm girth	North-west corner	B2
T2	Rowan	Sorbus aucuparia	Standard, 8–10cm girth	North boundary, near existing post	B2
T3	Hornbeam	Carpinus betulus	Standard, 8–10cm girth	North-east boundary (curved section)	B2
T4	Silver Birch	Betula pendula	Standard, 8–10cm girth	West boundary – northern section	A
T5	Rowan	Sorbus aucuparia	Standard, 8–10cm girth	West boundary – north of plot division	A

Ref	Common Name	Botanical Name	Size / Spec	Position (Dwg 26-01-05)	Zone
T6	Hornbeam	Carpinus betulus	Standard, 8–10cm girth	West boundary – at plot division	A
T7	Silver Birch	Betula pendula	Standard, 8–10cm girth	West boundary – southern section	A
T8	Sessile Oak	Quercus petraea	Standard, 8–10cm girth	South-west corner	A / B1
T9	Rowan	Sorbus aucuparia	Standard, 8–10cm girth	South boundary, east end (beside parking)	B1

Totals: Silver Birch 3, Rowan 3, Hornbeam 2, Sessile Oak 1 (9 in total). Standards are root-balled or container-grown.

Note: Tree references T1–T9 are to be marked on Landscape Plan 26-01-05. Positions are as plotted on that drawing.

7. Hedgerow Planting Schedule

7.1 Species Mix

The following native, thicket-forming mix (PEA para 4.2.6) is specified for both the enhancement of the retained western hedgerow (Zone A) and the new southern and northern hedgerow extensions (Zones B1 and B2), to create a consistent, dense boundary feature:

Common Name	Botanical Name	Mix %	Whip Size / Spec
Hawthorn	Crataegus monogyna	40%	Bare-root / cell-grown transplant, 60–90cm
Blackthorn	Prunus spinosa	20%	Bare-root / cell-grown transplant, 60–90cm
Hazel	Corylus avellana	20%	Bare-root / cell-grown transplant, 60–90cm
Holly	Ilex aquifolium	10%	Cell-grown transplant, 40–60cm
Wild Cherry	Prunus avium	10%	Bare-root / cell-grown transplant, 60–90cm

Note: Ash is excluded because of the ash dieback noted in the wider area (PEA footnote 4). Sycamore is excluded in favour of species of higher ecological value, per the PEA.

7.2 Pre-Planting Removal of Snowberry

Certhia Ecology's INNS walkover (11/09/2026; tech note dated 15/09/2026) found no Schedule 9 invasive species on Site. Snowberry (*Symphoricarpos albus*) is present within the hedgerow (Target Notes TN1–TN3), together with emergent Buddleia (*Buddleja davidii*). Neither is a Schedule 9 species, but both can form dense thickets that outcompete native plants. In line with PEA para 4.2.6 and the tech note:

- All Snowberry stands are removed before any hedgerow planting, including the rhizomes, to prevent recolonisation.
- Arisings are removed from the planting zones and are not used as mulch or spread on Site.
- Vegetation clearance follows PEA Section 4.1 (an ecologist present where dense scrub is cleared in the nesting bird season, and reptile and amphibian sensitive clearance in the active season) and the CEMP.
- If any suspected Schedule 9 species is found before or during works, an ecologist is consulted and an appropriate management plan produced (tech note para 2.1.6).

This method will be aligned with any INNS Method Statement the local planning authority requires.

7.3 Specimen Numbers & Planting Distances

Zone	Location / Length	Planting Method	Spacing	Whips per m run	Total whips
A – retain and enhance	Western boundary, 45m	Single-row infill into gaps and cleared Snowberry areas	300mm centres	3.3	150
B1 – new (south)	Southern boundary, approx. 17m	New double-staggered row	300mm centres within each row; rows 300–400mm apart	6.7	113
B2 – new (north)	Northern boundary, approx. 17.5m	New double-staggered row	300mm centres within each row; rows 300–400mm apart	6.7	117
TOTAL	Approx. 79.5m of hedge				380

Note: Zone A assumes infill along the full 45m. The quantity will be reduced to the actual extent of gaps once clearance and Snowberry removal are complete.

Whips by species

Species	Mix %	Zone A	Zone B1	Zone B2	Total
Hawthorn	40%	60	45	47	152
Blackthorn	20%	30	23	23	76
Hazel	20%	30	23	23	76
Holly	10%	15	11	12	38
Wild Cherry	10%	15	11	12	38
TOTAL	100%	150	113	117	380

7.4 Hedgerow Margin

Where space within the Site allows, a 1m wide unmown margin is sown along each side of the new hedge lines (Zones B1 and B2) and along the gapped-up sections of Zone A, using Emorsgate EH1 Hedgerow Mixture (or similar approved) at the manufacturer's recommended rate. This provides additional foraging and nesting cover in line with the B-Line objective.

7.5 Protection During Establishment

- New close-boarded fence on the southern and northern plot boundaries is erected outside the new hedge lines (Dwg 26-01-05 plan key), with a 1m high temporary protective fence to the outer face during establishment.
- The protective wire fence to the retained western hedgerow (Dwgs 26-01-13/14) is maintained throughout construction in accordance with the CEMP.
- Hedgehog access openings (130 × 130mm at 5m centres) in the close-boarded fencing are kept clear of hedge base planting.

8. Rain Garden & SuDS Planting Schedule (Zone C)

Rain garden planting is designed around the SuDS build-up on Drainage Details Dwg 11188_501 Rev 03: a 250mm free-draining sandy-loam topsoil with 10% PAS100 compost, over a 200mm crushed-stone drainage layer, with a 50–100mm open storage zone above a granite grit mulch, and 1-in-6 side slopes. This creates a moisture gradient

from a periodically inundated base to a free-draining, drought-prone upper edge, so planting is specified in three tiers.

In line with PEA para 4.2.6 the palette is native, wildflower-rich and weighted towards species that tolerate both short periods of standing water (24–48 hours) and summer drought. Species that need permanently wet soil, such as Marsh Marigold, are excluded. No peat-based composts, mulches or soil conditioners are used (PEA para 4.3.1).

8.1 Areas

Ref	Location	Approx. area (m ²)
RG1	Northern dwelling – north-east corner of plot	3.5
RG2	Northern dwelling – east side of plot	2.0
RG3	Southern dwelling – north-east corner of plot	3.0
RG4	Southern dwelling – east side of plot	1.5
TOTAL		10.0

For quantities, the total area is divided into three tiers in the proportions 30% base, 40% mid-slope and 30% upper edge: 3m², 4m² and 3m² respectively. The same proportions apply within each of RG1–RG4.

8.2 Base / Low-Storage Zone (3m²)

Common Name	Botanical Name	Rate (no./m ²)	Quantity	Notes
Yellow Flag Iris	<i>Iris pseudacorus</i>	3	9	Structural; tolerates temporary standing water
Water Avens	<i>Geum rivale</i>	4	12	Tolerates wet and dry spells; early nectar source
Purple Loosestrife	<i>Lythrum salicaria</i>	3	9	Pollinator value
Meadowsweet	<i>Filipendula ulmaria</i>	3	9	Pollinator value; tall herb layer
Soft Rush	<i>Juncus effusus</i>	4	12	Structural; erosion control at inlet

8.3 Side-Slope / Mid Zone (4m²)

Common Name	Botanical Name	Rate (no./m ²)	Quantity	Notes
Devil's-bit Scabious	<i>Succisa pratensis</i>	4	16	Larval foodplant of Marsh Fritillary (Cwm Glo SINC) – direct B-Line and NBB benefit
Meadow Crane's-bill	<i>Geranium pratense</i>	3	12	Pollinator value
Common Knapweed	<i>Centaurea nigra</i>	3	12	Drought tolerant; pollinator value
Tufted Hair-grass	<i>Deschampsia cespitosa</i>	4	16	Structural grass; erosion control
Yarrow	<i>Achillea millefolium</i>	3	12	Drought tolerant; pollinator value

8.4 Upper Edge / Drought-Tolerant Zone (3m²)

Common Name	Botanical Name	Rate (no./m ²)	Quantity	Notes
Bird's-foot Trefoil	<i>Lotus corniculatus</i>	3	9	Drought tolerant; pollinator value
Ox-eye Daisy	<i>Leucanthemum vulgare</i>	3	9	Drought tolerant
Wild Marjoram	<i>Origanum vulgare</i>	3	9	Drought tolerant; pollinator value
Red Campion	<i>Silene dioica</i>	3	9	Pollinator value

Common Name	Botanical Name	Rate (no./m ²)	Quantity	Notes
Wildflower / grass matrix	Emorsgate EL1 Flowering Lawn Mixture (or similar approved)	–	Seed	Sown between plugs at the manufacturer's recommended rate; consistent with the garden lawn mix (Section 9.2)

Note: Plug plants (9cm) are planted through the granite grit mulch into the topsoil beneath. Total plugs: 51 (base) + 68 (mid-slope) + 36 (upper edge) = 155. Quantities are calculated from the scaled areas in Section 8.1 and will be recalculated (rate × area) if the confirmed areas differ. Vigorous spreading marginals (e.g. Common Reed, Bulrush) are excluded given the small size of these features.

9. Raised Planters & Garden Amenity Planting

9.1 Raised Planter (Zone D)

The raised planter at the rear of each dwelling (Dwg 11188_501, 'Raised Planter Detail') receives rainwater pipe outflow through a below-ground outlet and is fully free-draining (growing medium over geotextile and perforated pipe, with overflow to the drainage layer). As it does not hold standing water, it is planted from the upper-edge palette in Section 8.4 (Bird's-foot Trefoil, Wild Marjoram, Ox-eye Daisy, Red Campion) at 3 plugs/m² of planter surface. Planter dimensions are taken from the drawing when the planting is ordered.

9.2 Garden Amenity Grassland / Flowering Lawn (Zone E)

Lawn areas in the rear gardens of Plots 1a and 1b are shown on Dwgs 26-01-13/14 (plan key: 'Lawn (Emorsgate EL1)'), as previously accepted on plots 1 - 8.

Area	Specification	Preparation
Lawn / amenity grassland, rear gardens	Emorsgate EL1 Flowering Lawn Mixture (or similar approved), sown at the manufacturer's recommended rate	Remove all debris and stones within 100mm of the surface; dig over any compacted or waterlogged areas before sowing

10. Tree & Hedge Planting Specification

10.1 Tree Pit Detail

- Square tree pit, minimum width and depth to fit the root spread.
- Excavated topsoil and subsoil kept separate.
- Sides and base of the pit loosened to ensure free drainage; a layer of coarse sand in the base.
- Backfill with a maximum 300mm depth of topsoil, with subsoil beneath if necessary.
- Finished surface raised 50mm above surrounding soil levels to allow for settlement and drainage.
- Double stakes, approx. 900mm above finished ground level, with cross-rail and rubber ties; 1m × 1m peat-free mulch mat.

10.2 Hedge Planting Method

- New sections (B1, B2): whips in a double-staggered row at 300mm centres within each row, rows 300–400mm apart (6.7 whips per metre of hedge). Enhancement section (A): single-row infill at 300mm centres (3.3 whips per metre).
- Ground preparation: remove all competing vegetation, and any Snowberry and rhizomes, within 500mm of the planting line; cultivate to a minimum depth of 300mm.
- Peat-free mulch mat or organic mulch (75mm depth) along the full length of the new hedge line, kept clear of stems.

- Rabbit and deer guards where browsing pressure is anticipated.

10.3 General Horticultural Practice

All planting uses peat-free composts, mulches and soil conditioners, consistent with PEA para 4.3.1 and CIRIA C741 Environmental Good Practice on Site. All plant stock complies with BS 3936 (nursery stock) and is of UK or Irish provenance, local where available, to minimise biosecurity risk.

10.4 Timing of Planting

Bare-root whips and trees are planted in the first suitable dormant season (November to March) following completion of the groundworks. Plug plants and seed are sown or planted in the first suitable spring or autumn period after the rain gardens are constructed.

11. Coordination with Exterior Lighting

This Planting Plan has been checked against Exterior Lighting Dwgs 26-01-13 and 26-01-14 (Rev 2):

- Exterior lighting is as described on those drawings: Philips myGarden June PIR wall lights, mounted at a maximum 2.5m height, with downward-shielded illumination and a PIR timer of one minute or less. The lamp specification and its verification are covered in the response to Memo 4, Comments 7 and 8.
- New and enhanced hedgerow planting (Zones A, B1 and B2) reinforces the dark corridor along the site boundary and screens the bat commuting flightline from residual light spill.
- All nine trees are sited on the site boundaries; none is positioned directly in front of a building elevation, so access to the integrated bat and bird boxes is not obstructed.
- The rain garden planting areas (RG1–RG4) lie outside the indicative illumination areas shown on Dwgs 26-01-13/14.

12. Aftercare & Management Period

In line with Memo 4, Comment 3, the management period for all planting in this document – hedgerow, trees, rain gardens, planters and garden grassland – is the lifetime of the development, not a fixed 25-year period. It is to be read consistently with the EcMP, the LHES and the CEMP. Planting is maintained and, where necessary, replaced like-for-like for that period. Specific measures:

- All new whips and standards are watered during establishment (first two growing seasons) and inspected annually.
- Any dead, dying, diseased or missing specimens are replaced with the same species and size in the next planting season, as a 'make good' obligation for the lifetime of the development rather than a fixed defects period.
- The hedgerow is trimmed on a rotational basis outside the bird nesting season (March–September) to maintain a dense, thicket-forming structure.
- Rain gardens are inspected annually and kept clear of self-seeded woody and invasive species that could compromise SuDS function or outcompete the specified native palette.

13. Confirmation of Quantities

The following will be confirmed before procurement. None changes the species, spacing or rates specified above; quantities are recalculated from the stated formulae.

Item	Basis in this document	To be confirmed
Hedgerow lengths, Zones B1 and B2	Approx. 17m and 17.5m, scaled from the drawings	CAD source or on-site measurement (whips = length × 6.7)
Hedgerow infill, Zone A	150 whips, assuming infill along the full 45m	Actual extent of gaps after clearance and Snowberry removal
Rain garden areas (RG1–RG4)	Approx. 10m ² in total, scaled from the site plan	CAD source or civil engineer's SuDS layout (plugs = area × rate)
Raised planter dimensions	3 plugs/m ² of planter surface	Dwg 11188_501 and architectural drawings
Tree references T1–T9	Positions as plotted on Dwg 26-01-05	References marked on the drawing

Appendix A – Full Planting Schedule (Summary)

Zone	Species	Qty / Rate	Spacing / Method
Trees (A, B1, B2)	Silver Birch, <i>Betula pendula</i> 3 (T1, T4, T7); Rowan, <i>Sorbus aucuparia</i> 3 (T2, T5, T9); Hornbeam, <i>Carpinus betulus</i> 2 (T3, T6); Sessile Oak, <i>Quercus petraea</i> 1 (T8)	9 no.	Standard, 8–10cm girth; individual pits
Hedge (A, B1, B2)	Hawthorn, <i>Crataegus monogyna</i>	152 no.	Section 7.3: A single row; B1/B2 double-staggered rows, 300mm centres
Hedge (A, B1, B2)	Blackthorn, <i>Prunus spinosa</i>	76 no.	As above
Hedge (A, B1, B2)	Hazel, <i>Corylus avellana</i>	76 no.	As above
Hedge (A, B1, B2)	Holly, <i>Ilex aquifolium</i>	38 no.	As above
Hedge (A, B1, B2)	Wild Cherry, <i>Prunus avium</i>	38 no.	As above
Hedge margin	Emorsgate EH1 Hedgerow Mixture (or similar)	Manufacturer's rate	1m margin where space allows
C – rain garden base (3m ²)	Yellow Flag Iris 9; Water Aven 12; Purple Loosestrife 9; Meadowsweet 9; Soft Rush 12	51 plugs	Plugs at 3–4 per m ²
C – rain garden mid-slope (4m ²)	Devil's-bit Scabious 16; Meadow Crane's-bill 12; Common Knapweed 12; Tufted Hair-grass 16; Yarrow 12	68 plugs	Plugs at 3–4 per m ²
C – rain garden upper edge (3m ²)	Bird's-foot Trefoil 9; Ox-eye Daisy 9; Wild Marjoram 9; Red Campion 9; plus EL1 matrix seed	36 plugs + seed	Plugs at 3 per m ² ; oversow
D – raised planters	Upper-edge palette (Section 8.4)	3 plugs/m ²	Per planter dimensions
E – garden lawn	Emorsgate EL1 Flowering Lawn Mixture (or similar)	Manufacturer's rate	Full lawn area

END OF DOCUMENT