

**Mayphil Ltd, Goatmill Road, Merthyr
Extension Unit**

Landscape Schedule for planting and maintenance

Prepared for Mayphil Ltd
by
Mackley Davies Associates Ltd

August 2021 v1

1.0 LANDSCAPE DESIGN OBJECTIVES:

The landscape proposals aim to conserve and enhance the existing landscape screen for the approved rear extension at Mayphil UK Ltd, Goat Mill Road, Dowlais, Merthyr Tydfil, CF48 3TF, to meet Condition 3 of planning approval decision P/16/0186.

The existing site screening from public views is shown below, the views is from New Road, north of the site and show the tree cover provides good screening of the existing Mayphil buildings in summer:



View from New Road

The extension will be set back from the fence line and trees and as described in the Decision Notice ‘the set back from the steep embankment, combined with the existing vegetation, would result in a development that has limited intervisibility with residential areas. There is however a small gap in the landscaping which the applicant proposes to fill with hedge and tree planting. Details of this planting could be secured by condition....’.

Photos below show the existing site screening from within the site. All existing planting is set behind a security fence that will remain in place:



Eastern section



Middle section



Western section

Beyond the security fence line is around 1.5m width of flat ground before the ground slopes away steeply to New Road which could be planted up. Existing tree cover includes the following species:

- trees near the top of the sloping bank include pine, lime, evergreen oak, birch, oak, yellow berried rowan, whitebeam, Norway maple with lime tree planting along New Road
- under-storey shrubs include hawthorn, holly, hazel, dogwood

In addition, birch, buddleia, and shrubby willows have self-seeded within the site.

There are two sections where there is a gap in tree cover and which would benefit from additional tree planting. A mixed native hedge would help screen views in winter months where views under and through the existing mainly deciduous tree canopies would be more open.

The landscape aims are to:

1. Conserve and positively manage the existing tree cover to ensure the resource is retained long-term.
2. Plant up gaps in the tree cover to soften any glimpsed views of the proposed extension.

3. Plant up a mixed native hedgerow to improve ecological diversity and help screen views in winter months.

This will be delivered as shown on the Landscape Plan by:

- new planting of 12no feathered trees to fill gaps
- new planting of 45 linear meters of mixed hedge allowed to grow on or maintained to 2m height along north fence line
- active maintenance for 5 years, replacing defects the following planting season, to ensure the planting plan is delivered

2.0 OUTLINE SPECIFICATION FOR SOFT LANDSCAPE WORKS

Refer to Landscape Plan reference: 21/837/01.

1.0 Work to be carried out in accordance with the following standards:

- British Standards:
 - BS 3882:2015 Specification for topsoil
 - BS 8601:2013 Specification for subsoil and requirements for use
 - BS 5837:2012 Trees in relation to design, demolition and construction
 - BS 8545:2014 Trees from nursery to independence in the landscape
 - BS 4428:1989 Code of practice for general landscape operations (excluding hard surfaces)
- National Plant Specification
- National Landscape Specification (NBS) latest revision

2.0 Protection of site trees and hedges:

Before work commences, ensure the need for protection of existing trees and shrubs is understood by the landscape contractor. Existing topsoil depth may be adequate to support planting and should be investigated by landscape contractor to minimise the need for excavating a trench, importing soils, and the use of machinery is a working method to minimise the impact on existing trees.

3.0 Site clearance:

Remove bramble and bracken.

Remove any rubbish, concrete, metal, glass, decayed vegetation, contaminated substrate and stones with largest dimension exceeding 100mm. Contamination includes steel, concrete, rubble, fuel, lubricants or other substances injurious to plant growth.

4.0 Soil conditions:

Do not work in waterlogged conditions, when the ground is frozen or covered by snow, or when there are pools of water on the ground surface, or following sustained heavy rainfall eg >10mm in 24 hours.

Cultivate and plant into moist friable soil.

Provide adequate additional root protection and prevent planting pit sides and bases and backfill materials from freezing.

5.0 Climatic conditions:

Carry out the work while soil and weather conditions are suitable for the relevant operations. Do not plant during periods of frost or strong winds. Bare root planting to be restricted to the 'lifting' season, generally November to March.

6.0 Machines and tools:

Use only machinery and tools suitable for the site conditions and the work to be carried out. Refer paragraph 2.0.

7.0 Excavation:

Ensure the location of all services is known before any excavation operations.

Excavation is NOT to be carried out within the root protection area of trees.

8.0 Soils:

For imported soils a topsoil/subsoil analysis report will be obtained from an agreed soil science consultancy. The results to include an interpretive commentary on the suitability of the topsoil/subsoil for the proposed landscape design and end users in addition to any measures required at planting or during the three year plant establishment period to aid growth.

The following hierarchy to be followed to reduce soil handling:

1. If soils are suitable and in the right location, protect during the construction period in-situ by adequate fencing
2. If not suitable for re-use, replace with imported soil

All in accordance with:

- BS 15176: 2019 Guidance on the characterization of excavated soil and other materials intended for reuse
- BS 3882:2015 Specification for topsoil
- BS 8601:2013 Specification for subsoil and requirements for use
- Defra Code of Practice for the Sustainable Use of Soils on Construction Sites

Imported Subsoil:

Use of subsoil under soft landscape areas to be placed to BS8601:2013. Project Manager is to ensure subsoils under soft landscape areas are loose tipped and not firmed, consolidated, or compacted when laying. Tip and grade to approximate levels in one operation. Batter/feather in local levels to achieve smooth rounded profiles and ensure falls are positive to reduce the risk of water ponding.

Topsoil should be keyed into the subsoil interface. Over-compacted subsoil should be loosened before topsoiling, when soil is dry. For small areas, hand cultivation should be used. Remove surface stones larger than 75mm in preparation for cultivation, for light and non-cohesive subsoils: loosen thoroughly to a depth of 300 mm.

Imported Topsoil:

Use of topsoil is to be placed to BS3882:2015. Ideally supply and place topsoil without the need for storage.

No spreading after sustained heavy rainfall over 10mm in 24 hours.

Ensure topsoil is loose tipped in layers of 0.2m maximum, and not firmed, consolidated, or compacted when laying by tipping and grading to approximate levels in one operation.

Place sufficient depth to allow for topsoil settlement.

Batter/feather in local levels to achieve smooth rounded profiles and ensure falls are positive to reduce the risk of water ponding.

Backfill to the following depths for subsoil (to BS8601:2013) and topsoil (to BS3882:2015):

	Subsoil depth mm	Topsoil depth mm
trees	600	300
hedging plants	300	300

9.0 Tree Planting:

Refer to Tree Pit Section on Landscape Plan 21/837/01.

Backfill mix (including green compost, fertilizer, mycorrhizal supplement) for bare root stock, to accord with recommendations of any imported Soil Analysis. Backfill mix should not be required for root balled and container trees at planting.

Plant trees as indicated on the Planting Plan. Contractor is to locate underground services before excavation. Install a root barrier where trees will lie within 3m of an existing or proposed underground service route or highway kerb eg. Greenleaf Reroot or equivalent to full depth of topsoil to top of finished soil level with sides vertical.

10.0 Cultivation prior to planting:

If areas are weed infested, remove by hand or mechanical means. Herbicide is not recommended due to the risk of drift onto trees and shrubs.

No cultivation to take place within tree root protection areas.

No cultivation after sustained heavy rainfall over 10mm in 24 hours.

Cultivate topsoil by hand to achieve a suitable loose, friable tilth, remove rubbish/stones/roots etc over 50mm for planting areas in line with BS 3882:2015 table A.1, and rake to even out levels.

11.0 Plant Supply:

Nursery Stock to BS 3936 Part 1 'Nursery stock specification for trees and shrubs' and BS 8545:2014 Trees from nursery to independence in the landscape.

Name, forms, dimensions and other criteria as scheduled and defined in the National Plant Specification. If specified plants are unobtainable or known to be likely to be unobtainable at the time of ordering, obtain approval before making any substitution.

Plants should be:

- Materially undamaged, sturdy, healthy, vigorous, of good shape and without elongated shoots.
- Grown in suitable environment and hardened off.
- Free from pests diseases, discoloration, weeds and physiological disorders.
- Budded or grafted plants to be bottom worked unless otherwise specified or approved.
- Ideally from nurseries at a similar exposed and elevated site and UK grown.
- Produced in peat-free compost.

In addition, trees should have:

- Clearly defined and straight leader.
- Balanced branching framework with lateral branches subordinate to the leader.
- Clearly defined stem taper and proportionate, balanced height/stem girth ratio appropriate to the species.
- No crossing or co-dominant branches.
- Evenly spaced lateral roots with minimum four major laterals.
- Evenly spaced, well developed fibrous roots.
- An intact root-ball with the root-flare clearly visible.

12.0 Plant Handling:

Handling of plants to HTA National Plant Specification and the Committee for Plant Handling and Establishment Part 3 'Recommendations for Plant Handling from Delivery to Successful Establishment' and BS 8545:2014 Trees from nursery to independence in the landscape.

All plants delivered on racks. Boxed/pallet stacked plants are not acceptable.

Protect plants / trees from frost and from drying out.

Handle plants / trees with care. Protect from mechanical damage and do not subject to shock eg. by dropping from a vehicle.

All plant material is to be carefully lifted, adequately and carefully packed and protected for delivery to site.

Plants should not be lifted and stored on the delivery vehicle overnight. Ideally plants should be lifted, delivered to the site and planted on the same day.

On delivery to site, bare-root or root-balled plants, should be stacked together, away from the effects of the drying winds, their roots being covered with sand or fine soil and watered to prevent drying out.

Plants may require to be heeled-in, using prepared trenches, covered with soil (fine material) and watered thoroughly. Stored plants should be checked regularly to ensure their root systems are fully covered and that the soil (fine material) is kept moist.

If planting becomes delayed into April or later, then bare root plant material is to be stored in cold stores until required on site.

13.0 Planting:

Set out plants evenly to density and quantities shown, arranged to avoid straight lines and geometric patterns. Plant to the nursery soil depth, face up to present best side, and firm in.

For bare root stock, dip in a proprietary alginate prior to planting such as Alginure/Broadleaf P4 anti-desiccant gel before planting.

If rootballed, containerizing or container grown trees are to be used:

Dig a hole that is widest at the top with gently sloping, scarified sides to comfortably accommodate the width, but of no greater depth than the roots or root-ball. For root-balled trees the hole may be slightly shallower than the rootball (approximately 2.5-5cm), in anticipation of soil settlement. For container grown trees the hole may need to be 4-6cm shallower. Do not mix the excavated soil.

Water the root system prior to planting.

Diameter of pit to be minimum 75mm greater than the root system. Plant at correct depth with root flare visible at ground level, allowing for topsoil settlement. Backfill in 150-200mm layers, firm to eliminate voids. Final backfill layer is not consolidated. Remove wire baskets, hessian and twine used in the rootballing process where this is feasible without disturbing the root ball. Immediately water to field capacity, add mulch but not at root flare to a 1.2m radius or 3m radius for large trees where possible. No fertilizer to be added in the first season.

14.0 Immediate aftercare:

Immediately after planting cut back any damaged, dead or diseased branches and remove any weak, thin or malformed growth.

For tree species any immediate aftercare is to accord with BS3998:2010 and BS 8545:2014.

If tree leaders are damaged or have been removed, the stock should be replaced.

Water as necessary to ensure the establishment and continued thriving of all planting. Ensure the full depth of topsoil is thoroughly wetted. Use a fine rose where appropriate to avoid damaging or loosening plants.

For trees planted into tree pits, wet the root system before planting and saturate the tree pit after planting to field capacity. Allow for watering every week to every fortnight according to weather conditions, from April to October. Where tree irrigation is provided, water through the cap and also use overhead watering for roots above the irrigation system – allow 20L for feathered trees.

Add mulch after watering in.

15.0 Tree guards/shrub shelters:

Recommended in order to suppress weeds and encourage tree/hedge growth. Protect all bare root hedge plants and trees with a shrub guard (provides trees with extra width to grow) and add 50mm depth bark mulch within the shelter eg Tubex Shrub Shelter 60cm.

16.0 Tree staking:

For feathered trees: one untreated wooden stakes driven well into the ground vertically, equally spaced around the root system, with biodegradable fabric ties and rubber pad, set low on the stem (max 1/3rd tree height)

17.0 Mulch specification:

Supplier to be agreed. Generally an amenity grade is required. Spread evenly to a depth of 50mm, increasing to 75mm around trees. Ensure no plant foliage is covered by mulch, lift all foliage above.

3.0 PLANTING SCHEDULE

Refer to Planting Plan 2/837/01 for layout and detail of tree pits and hedge planting.

	Species	Height (mm)	Description	Spacing	Total (no.)
Trees	Bare root feathered trees, planted into tree pits as shown on plan, ensure base is dug over to avoid water ponding. Good branching rather than height is key. Mulch to 75mm depth.				
Bp	Betula pendula (silver birch)	2-2.5m	Bare root Feathered	As per plan	6
Sar	Sorbus aria (whitebeam)	2-2.5m	Bare root Feathered	As per plan	3
Sau	Sorbus aucuparia (rowan)	2-2.5m	Bare root Feathered	As per plan	3

Native mixed hedge – 45 linear meters		
Plant a double staggered row [450mm between rows, 400mm along rows] at 5 plants/lin m , bare root transplants 1+2, 900-1200mm. Mulch hedge width to 50mm depth. Allow to grow on or maintain to 2m height.		
Hawthorn [Crataegus monogyna] 60%	Bare root 1+2, 900-1200mm	135
Hazel [Corylus avellana] 30%	Bare root 1+2, 900-1200mm	70
Holly [Ilex aquifolium] 10%	2L	20

4.0 MAINTENANCE TASKS

For newly planted areas:

Undertake maintenance at regular intervals during the growing season April to September.

During the 5 year establishment phase carry out maintenance of the planted areas as follows:

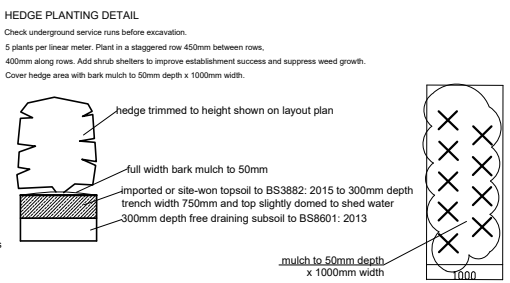
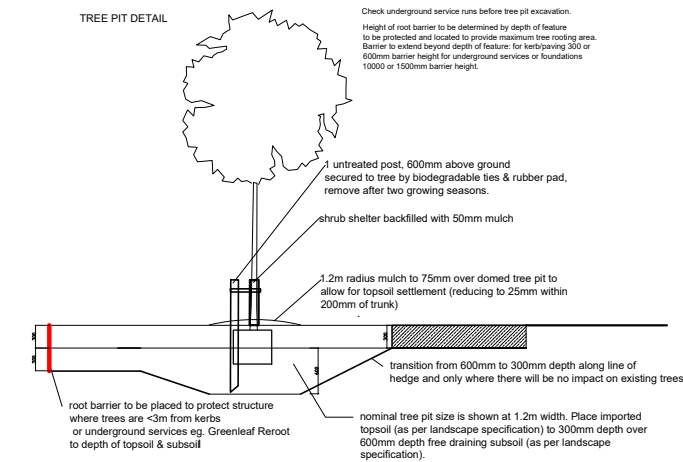
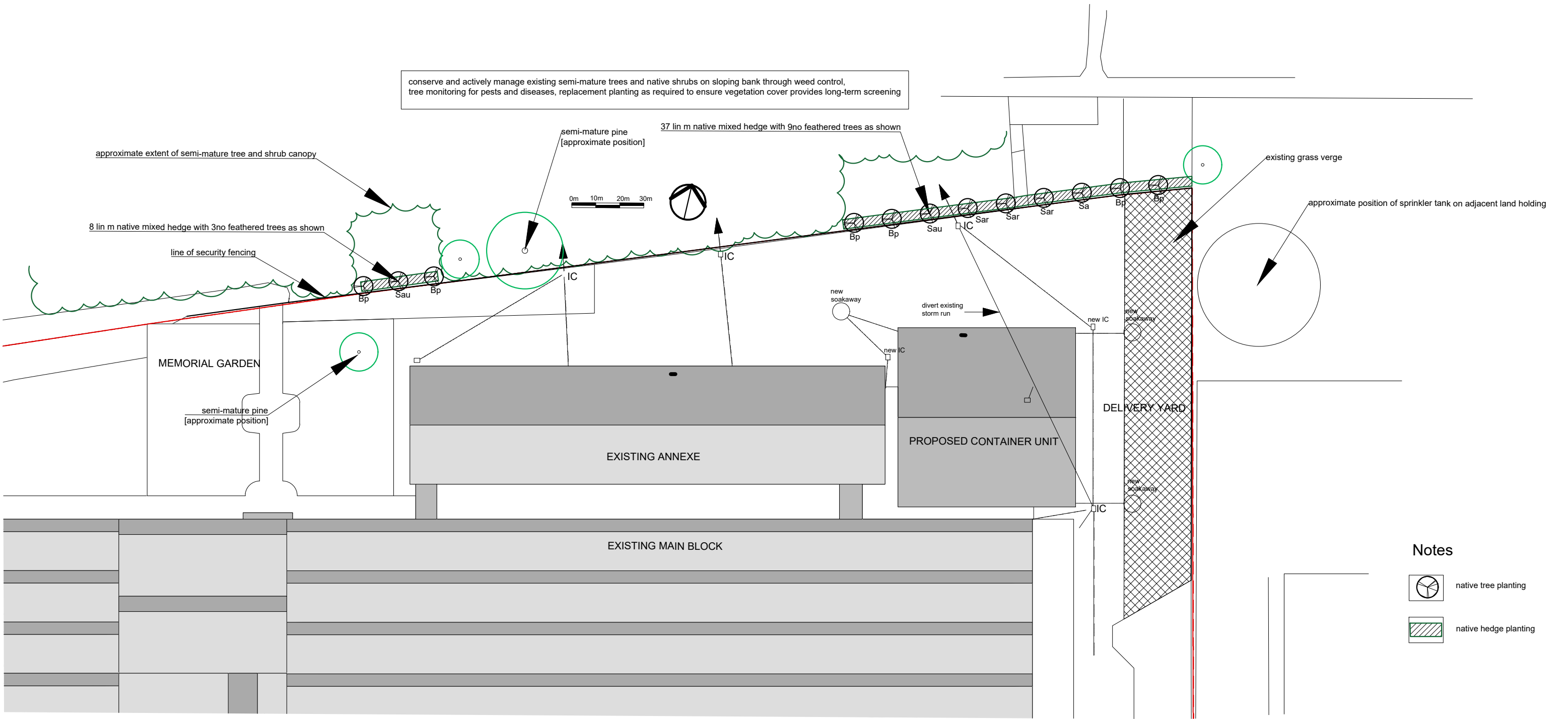
- Maintain a weed free area around each tree/shrub, minimum diameter 1.2m by use of hand weeding (there is a risk of plant damage from herbicide drift)
- The timing and method of weed control is to be kept under review. If herbicides are to be used, they are to be in accordance with COSHH regulations and manufacturers instructions.
- Watering trees: for the first growing year allow for watering every week to every fortnight according to weather conditions, from April to October. Allow 20L for feathered trees. Watering in year 2 is also likely to be required.
- For other plants, water as necessary to prevent plants wilting.
- Undertake formative pruning to maintain good dense plant structure.
- Re-firm soil around any loose plants without compacting.
- Re-firm any loose shrub shelter without compacting.
- Maintenance operations shall be carried out only during suitable weather conditions.
 - Top up bark mulch to maintain depth of 50mm for hedges, 75mm for trees.
 - Prune trees to favour a single central leading shoot, unless specified otherwise. Prune in accordance with good horticultural practice.
 - Tree stakes should be removed at year 2 or year 3.
- Every month check condition of stakes and ties. Replace broken or missing items. Adjust if necessary to allow for growth and prevent rubbing of bark. Cut back any damaged bark.
- If native mixed hedge is to be maintained to 2m rather than growing on, in order to provide a food and shelter resource leave overwinter berries and cut in February.

5.0 MONITORING AND DEFECT REPLACEMENTS

Undertake an annual walkover to enable monitoring of tree and hedge establishment success.

Plants that fail to thrive during the **5 year establishment phase** will be replaced in the next suitable planting season [November to March inclusive].

Replacements will match the size of adjacent or nearby plants of the same species or should match the original specification, whichever is the greater.



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Refer to Mackley Davies Landscape Schedule [for plant schedule, outline specification and maintenance/management].

All dimensions must be checked on site and not scaled from this drawing.

This drawing is for the purposes of PLANNING. Based on Ordnance Survey data as supplied. OS Licence 100043966

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SITE
Mayphil Ltd, Goatmill Road, Merthyr

CLIENT
Mayphil Ltd

DRAWING TITLE
Planting Plan for proposed extension

SCALE 1:200 @ A1	Job No. 21/837/01
DATE August 2021	REVISION No.