

Land north of Glanmyddyfi, Pentrefelin, Carmarthenshire Proposed bird free-range unit Landscape Planting Schedule and Outline Specification

Refer to **Planting Plan [Plan 11]** for locations.

A. SOFT LANDSCAPE WORKS

1.0 Site clearance:

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. For areas of new planting, spray out existing turf with glyphosate, follow manufacturers instructions before replanting, and take particular care to avoid any herbicide drift.

2.0 Soil conditions:

Cultivate and plant into moist friable soil that is not waterlogged.

Do not plant into frozen or snow covered soil without prior approval of the CA. Provide adequate additional root protection and prevent planting pit sides and bases and backfill materials from freezing.

3.0 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.

4.0 Machines and tools:

Use only machinery and tools suitable for the site conditions and the work to be carried out. Use hand tools around trees, plants and in confined spaces where it is impractical to use machinery.

5.0 Watering:

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.

6.0 Trees / plants generally:

- 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.
- Name, forms, dimensions and other criteria as scheduled and defined in the National Plant Specification
- Name, forms, dimensions and other criteria as scheduled and defined in the National Plant Specification.
- Ideally from nurseries at a similar exposed and elevated site and UK grown.

7.0 Supply of trees / plants:

Unless specified otherwise, obtain trees / plants from suppliers listed in the Horticultural Trades Association Nursery Certificate Scheme and of local provenance if possible.

8.0 Substitutes:

If specified plants are unobtainable or known to be likely to be unobtainable at the time of ordering, submit alternatives stating the price and how they differ from the specification. Such substitutions may not be acceptable and submission of further alternatives may be required. Obtain approval before making any substitution.

9.0 Plant / tree handling, storage and transport:

- Nursery Stock Trees to BS 3936 Part 1
- Comply with CPSE 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Parts I, II and III.
- Protect plants / trees from frost.
- Handle plants / trees with care. Protect from mechanical damage and do not subject to shock eg. by dropping from a vehicle.
- Plant packaging: black polythene bags
- Packaging of bulk quantities: may alternately use pallets or bins sealed with polythene and shrink wrapped.
- Peat: Do not use peat or products containing peat.

10.0 Fertiliser: slow release Osmocote or En-mag 6:20:10 incorporated into backfill mix.

11.0 Tree support:

For 8-10cm girth trees [bare root] and feathered rootballed oak : two pressure treated softwood stakes (1,400mm long x 75mm diameter) driven vertically into the ground to a depth of 800mm.

12.0 Ties & pads: (J.Toms Ltd)

Use Toms tree ties: Special nylon reinforced 25mm rubber belt with Toms standard pad.

13.0 Anti-desiccant:

Bare root plants to be dipped in Alginure/Broadleaf P4 anti-desiccant gel before planting.

14.0 Handling and Delivery:

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, rather they should be lifted and delivered to the site on the same day, then heeled in on site if time dictates.

15.0 Protection on Delivery:

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. Alternatively, plants may be heeled-in 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.

16.0 Cold Storage:

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

17.0 Planting:

Transplants shall be dipped in a proprietary alginate prior to planting. Plants shall be planted to the root collar and well firmed. Any trees lifted by frost shall be re-firmed to the original planting depth as soon as ground conditions permit.

18.0 Immediate aftercare:

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

19.0 Grass areas:

Restore any grassed damaged areas with appropriate grass mix. Existing fields are improved or semi-improved and dominated with perennial ryegrass. Cultivate and rake removing stones over 25mm and perennial weeds, add grass fertilizer to suppliers instructions. Rake the soil smooth ensuring areas are 25mm settled depth higher than any adjacent hard surfaces. Seed in two operations, rake and roll seedbed lightly after sowing, grass mix to match existing.

20.0 Subsoil and Topsoil:

Planting is expected to be into existing undisturbed topsoil. Generally plant into existing topsoil once surface growth (arable crop, grass) has been removed.

If this is not the case the following clauses should apply:

Use of subsoil under soft landscape areas to be site won and supplied, stored, placed to BS8601:2013. Ensure subsoil is not firmed, consolidated, or compacted when laying by tipping and grading to approximate levels in one operation with minimum trafficking by plant in line with Landscape National Building Specification. Storage to be in low mounds <1.5m to minimise compaction risk.

Site won topsoil to be stored and placed to BS3882:2015. Ensure topsoil is not firmed, consolidated, or compacted when laying by tipping and grading to approximate levels in one operation with no trafficking by plant in line with Landscape National Building Specification. Storage to be in low mounds <1.5m to minimise compaction risk.

For areas where planting will be into re-profiled levels and so cannot be planted into existing topsoil, ensure new topsoil depth is to the following depths (allowing for settlement):

Planting	min 300mm deep
Grass areas	150mm

For areas where topsoil has been replaced or reprofiled, batter/feather in levels to achieve smooth rounded profiles and ensure falls are positive to reduce the risk of water ponding and adversely affecting plant establishment.

21.0 Tree Pits:

Generally planting would be into gaps in an existing hedgerow line, however at this site the hedgerows have been regularly maintained resulting in dense growth and hedges up to 3m width. To enable the best chance of tree planting establishing, plant adjacent to the south side of the hedge, ensuring that adequate protection against grazing by sheep or cattle is provided.

For both 10-12cmg trees and feathered trees reuse site won topsoil placed to the following depth (allowing for settlement). Ensure tree pit bases are well forked over to aid drainage.

Trees 600x600x450mm deep min dimensions and backfilled with 20% green waste (BSI PAS100) by volume.

22.0 Tree Pit Root Barrier:

Unlikely to be required on this site. However if needed this should be installed for all trees planted within 3.0m of an existing underground service or highway kerb eg. Greenleaf Reroot or equivalent approved, to full depth of topsoil pit, to finish just below surface.

23.0 Tree pit setting out:

Plant trees and species as indicated on the Planting Plan.

24.0 Immediate aftercare:

Immediately after planting cut back any damaged, dead or diseased branches. Remove any weak, thin or malformed growth. For trees any immediate aftercare is to accord with BS3998:2010 and BS 8545:2014.

25.0 Plant protection:

Ensure that all new areas of planting are adequately protected from grazing by fencing off all sides with a sufficient set-back line of at least 1m.

Protect plants individually using rabbit guards if required.

B. MAINTENANCE

Make visits at regular intervals (at least every two months) during the growing season April to September.

Failures of planting:

Any trees/shrubs/plants that fail to thrive **during the year following planting** will be regarded as defects and must be replaced during the next suitable planting season. Replacements must match the size of adjacent or nearby plants of the same species or should match the original specification, whichever is the greater.

Establishment maintenance:

During the establishment period carry out maintenance of the planted areas as follows:

- Maintain a weed free area around each tree/shrub, minimum diameter 1.0m by use of hand weeding (herbicide such as glyphosate can be used but there is a risk of plant damage from herbicide drift).
- The timing and method of weed control is to be kept under review.
- Use of any herbicides to be in accordance with COSHH regulations and manufacturers instructions.
- There are no trees proposed where damage from mowers is likely. However if this changes ensure that trees in grass to be managed by mowing are not damaged by installing a tree guard, if missing ensure the use of nylon filament rotary cutters or similar powered tools use tree protection during cutting.
- Water only as necessary to prevent plants wilting.
- Check the condition of any temporary protective fencing and plant guards.
- Undertake formative pruning to maintain good dense plant structure.
- Re-firm soil around any loose plants without compacting.
- Maintenance operations shall be carried out only during suitable weather conditions.
- Over-seed areas of failed grass with matching seed mix.
- Allow self-seeded shrubs and trees to establish through natural regeneration.

Prune at appropriate times to remove dead or dying and diseased wood and suckers to promote healthy growth and natural shape. Prune trees to favour a single central leading shoot, unless specified otherwise. Prune in accordance with good horticultural practice.

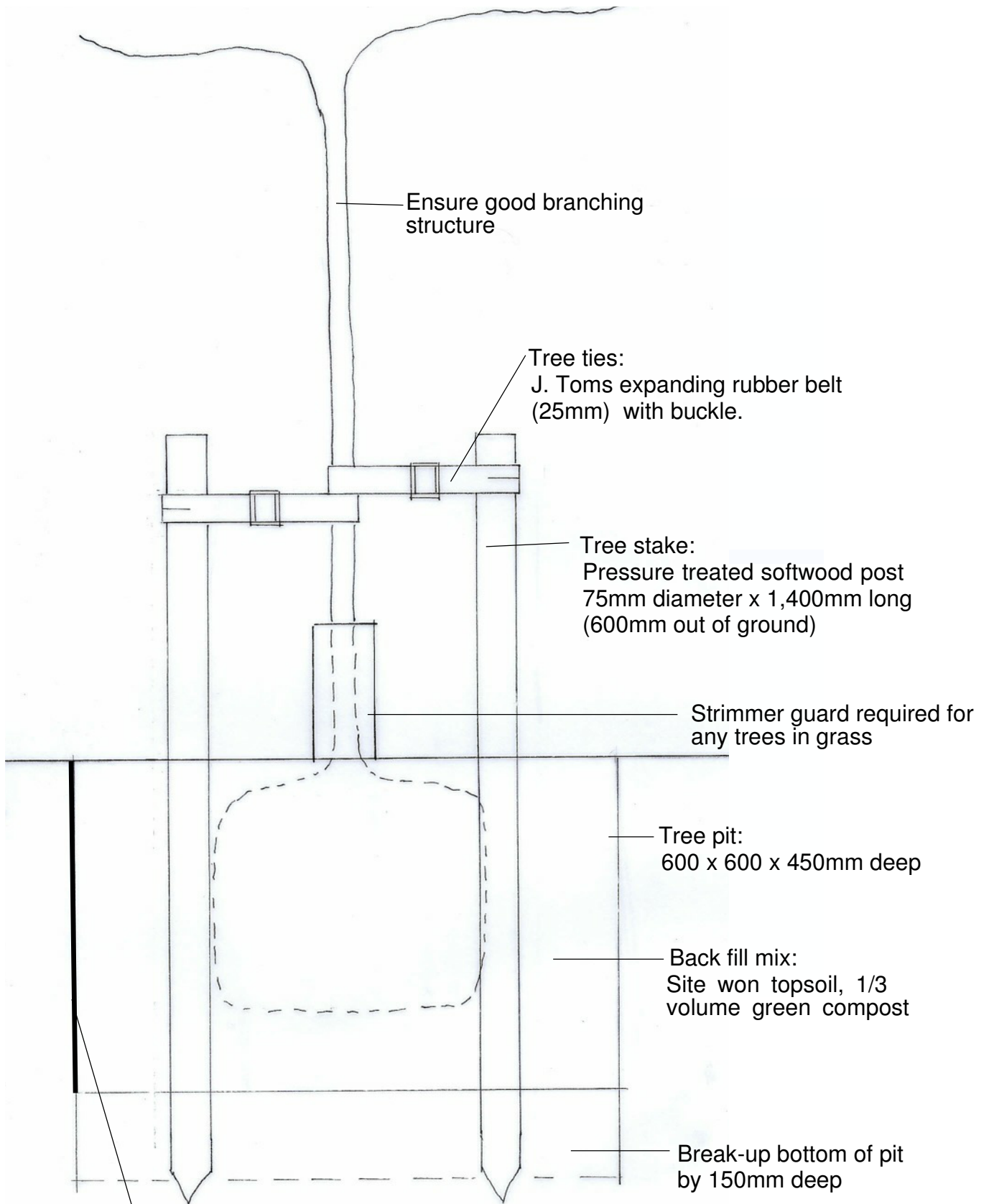
PLANTING SCHEDULE

See Plan 11 for location of planting

Code	Species	Height M	Spec	Spacing	Total (no.)
Hedgerow Trees:	Native trees planted south side of hedges at locations as shown at 10 or 20 metre centres. All planted into 0.6x0.6x0.45m pits with 80% topsoil 20% peat free compost backfill mix, secured with a double stake and rubber belting.				
	Field maple [<i>Acer campestre</i>]	2.5-3	8-10cmg Bare root	As plan	2
	Oak [<i>Quercus robur</i>]	1.2-3.5	Feathered rootballed	As plan	8
Hedge 1 gapping up A40 Frontage	Total length 40 + 6 = 46linm Plant in species groups of 5no as double staggered row [450mm between rows, 400mm along rows] at 5 plants/lin m, bare root transplants, 600-900mm high 1+1. All transplants protected by 400mm high plastic spiral rabbit guard. Provide stock proof fencing to protect from grazing if required.				
	Hazel [<i>Corylus avellana</i>] 20%	0.6	b/r	45cm	45
	Hawthorn [<i>Crataegus monogyna</i>] 60%	0.6	b/r	45cm	140
	Holly [<i>Ilex aquifolium</i>] 20%	0.4	2L	45cm	45
Hedge 4	Tree [70%] and shrub [30%] mix 700sqm, trees at 2m centres = 125 trees; shrubs at 1.5 centres 105 shrubs Shrub only edge mix 2m band at 1m centres = 150 shrubs Place shrubs edge mix to the south edge of planting areas. Mix others within the tree groups to create a multi-layered habitat. Plant in species groups of 5no or 7no, bare root transplants, 600-900mm high 1+1. All transplants protected by 400mm high plastic spiral rabbit guard. Provide stock proof fencing to protect from grazing if required.				
	Hazel [<i>Corylus avellana</i>] 30%	0.6	b/r	45cm	75
	Hawthorn [<i>Crataegus monogyna</i>] 50%	0.6	b/r	45cm	125
	Holly [<i>Ilex aquifolium</i>] 10%	0.4	2L	45cm	25
	Sloe [<i>Prunus spinosa</i>] 5%	0.6	b/r	45cm	15
	Elder [<i>Sambucus nigra</i>] 5%	0.6	b/r	45cm	15
trees	Goat Willow [<i>Salix caprea</i>] 10%	0.6	b/r	45cm	15
trees	Field maple [<i>Acer campestre</i>] 40%	0.6	b/r	45cm	50
trees	Oak [<i>Quercus robur</i>] 50%	0.6	b/r	45cm	60

Hedge 3	<p>Trees 720sqm at 2m centres = 180 trees</p> <p>Shrub only edge mix 2m band at 1m centres = 250 shrubs</p> <p>Place shrubs edge mix to the south edge of planting area..</p> <p>Plant in species groups of 5no or 7no, bare root transplants, 600-900mm high 1+1.</p> <p>All transplants protected by 400mm high plastic spiral rabbit guard.</p> <p>Provide stock proof fencing to protect from grazing if required.</p>				
	Hazel [<i>Corylus avellana</i>] 30%	0.6	b/r	45cm	75
	Hawthorn [<i>Crataegus monogyna</i>] 50%	0.6	b/r	45cm	125
	Holly [<i>Ilex aquifolium</i>] 10%	0.4	2L	45cm	25
	Sloe [<i>Prunus spinosa</i>] 5%	0.6	b/r	45cm	10
	Elder [<i>Sambucus nigra</i>] 5%	0.6	b/r	45cm	10
trees	Goat Willow [<i>Salix caprea</i>] 10%	0.6	b/r	45cm	20
trees	Field maple [<i>Acer campestre</i>] 40%	0.6	b/r	45cm	70
trees	Oak [<i>Quercus robur</i>] 50%	0.6	b/r	45cm	90
Woodland Copse	<p>Trees 420sqm at 2m centres = 105 trees</p> <p>Plant in species groups of 5no or 7no, bare root transplants, 600-900mm high 1+1.</p> <p>All transplants protected by 400mm high plastic spiral rabbit guard.</p> <p>Provide stock proof fencing to protect from grazing if required.</p>				
trees	Field maple [<i>Acer campestre</i>] 40%	0.6	b/r	45cm	40
trees	Oak [<i>Quercus robur</i>] 50%	0.6	b/r	45cm	65

Note: Ash [*Fraxinus excelsior*] and Sycamore [*Acer pseudoplatanus*] are both present at the site, neither are proposed in the planting mix.



Root barrier eg. Greenleaf Reroot to be provided to depth of topsoil for tree pit side where trees are planted within 3m of kerbs or service runs.

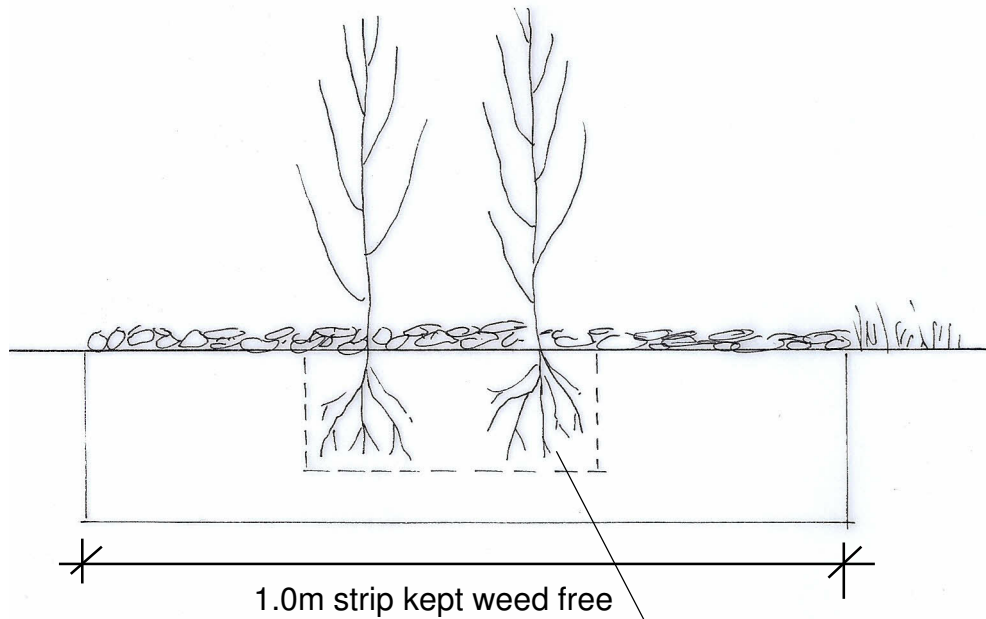
Section: (1:10 scale @ A4)

TREE PIT DETAIL

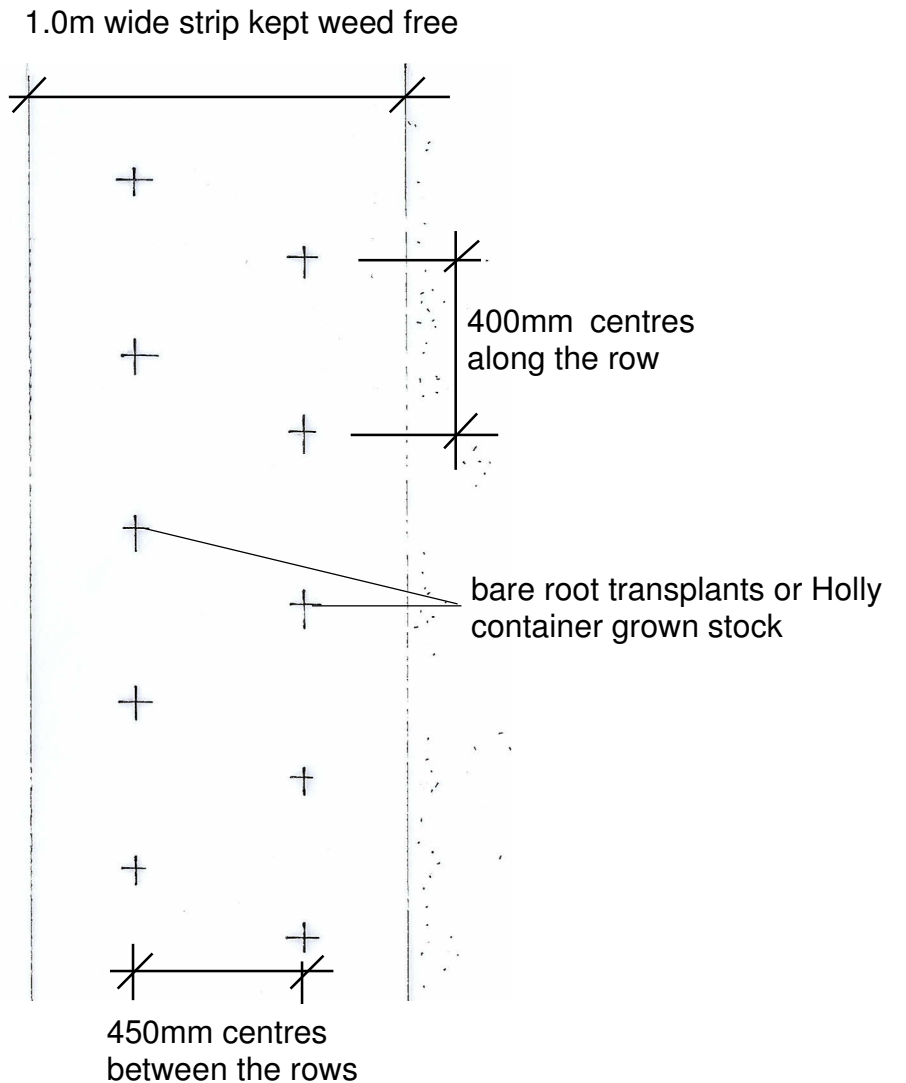
Land north of Glanmyddyfi
Pentrefelin



Mackley Davies Associates Ltd
landscape architecture . environmental planning
pensaerniaeth tirwedd . cynllunio amgylcheddol



Section: (1:20 scale @ A4) pit planted into weed free topsoil depth of 300mm



Plan: (1:20 scale @ A4)