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# Landscaping Plan

**Great House  
Longtown  
Herefordshire  
HR2 0LS**

## Overview:

The proposed development for **Great House, Longtown**, includes: a private tennis court, wildlife pond, mixed native woodland, small outdoor patio area, vegetable garden and ecological planting scheme. The proposed use of the field which extends to the West of the house for recreational purposes is therefore expected to require a planning application to change its use from agricultural to residential.

## Objectives:

The key objectives of the landscaping scheme are to increase biodiversity, establish new wildlife habitat and to incorporate a tennis court as sympathetically as possible into its surroundings.

*Wherever viable the design for **Great House** has:*

- used **sustainable/local resources** (such as timber certified by the Forest Stewardship Council)
- **protected existing habitat** (e.g. incorporating existing woodland and hedgerows into the design)
- **increased biodiversity** (e.g. creating wildlife attracting areas and new habitat)
- designed to **reduce waste & pollution** (e.g. lawn reduction, sustainable drainage and biofiltration)

## SITE PLAN: Great House, Longtown.





## PROPOSED SITE PLAN: Great House, Longtown.



## Schematic Plan

Potager vegetable garden within hazel hurdle fence

Greenhouse & composting area

Woodstore

Outdoor seating area

All boundary hedges maintained

Ornamental planting scheme

New woodland planting

Earth Banks laid with wildflower turf

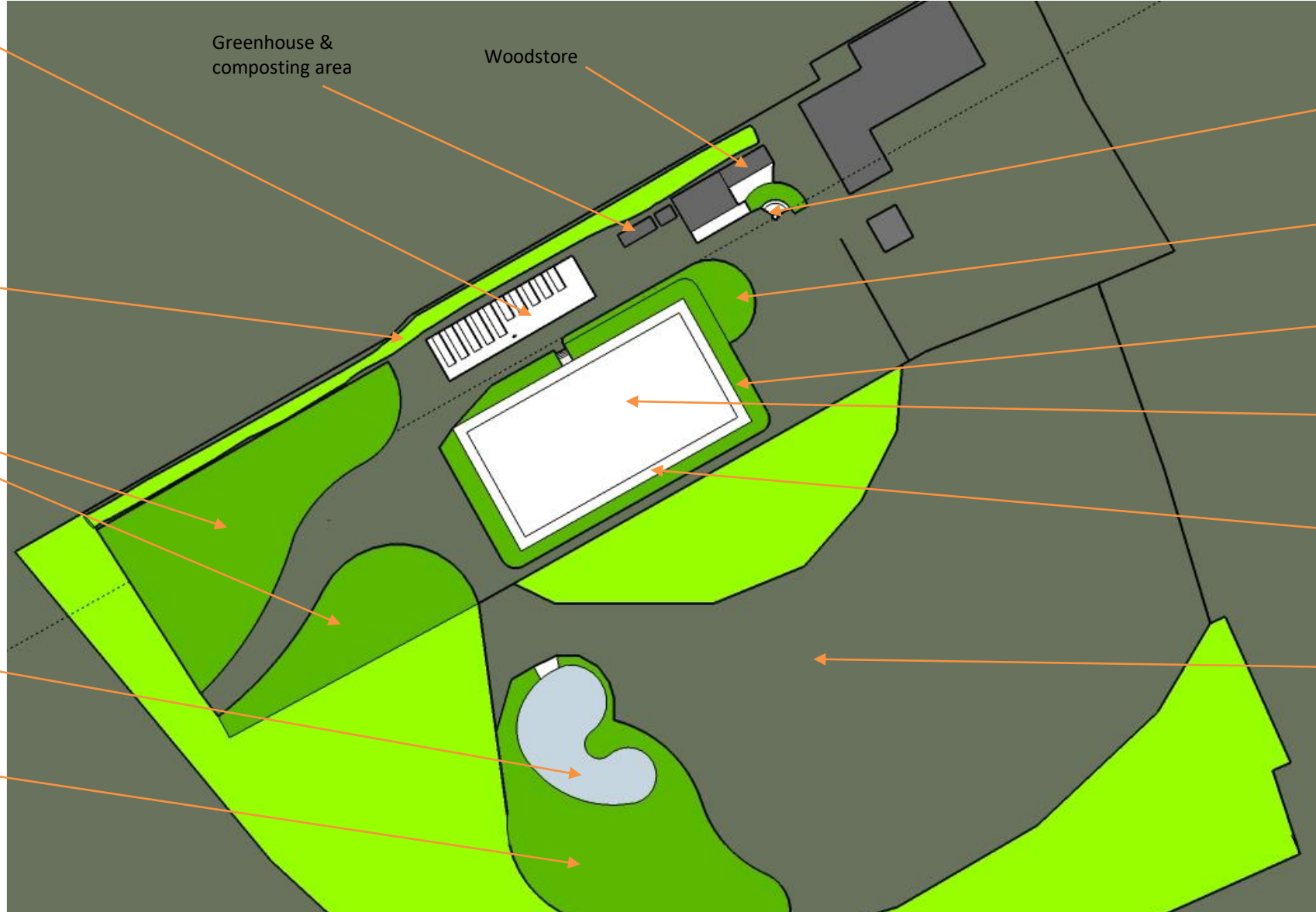
Tennis court

Wildlife pond

Perimeter path & soakaway

Ecological planting scheme

Areas of field sown with wildflower meadow seed mix



## Landscape Character:

The site lies within an area of important landscape character, designated as Natural Character Area 99 (Black Mountains and Golden Valley). The proposed landscaping scheme includes a woodland area, wildlife pond, wildflower meadow and ecological planting scheme. Plant species have been selected to reflect and enhance the area's unique landscape character (see planting plan). A key focus of the design has been to reduce the possibility of the tennis court being overly prominent if seen from the distant ridgeline of the Offa's Dyke walk. To minimise these potential views, the tennis court's surface will be green whilst surrounding galvanised steel posts and netting will be black (see contractor's specifications). Seen from Offa's Dyke, the tennis court will therefore be discrete, if very noticeable at all from this distance.

As an additional measure, the Northwest corner of the plot (immediately to the west of the tennis court) will be planted as native woodland (see planting plan), extending and protecting the riparian habitat around the Olchon Brook. The creation of roughly 1/3 acre of new woodland will establish a visual buffer-zone between Great House and the surrounding countryside, filtering views of the tennis court from the hilltop walks. To aid the establishment of this screen, a selection of 2-3m high standards will be planted alongside smaller saplings (see planting plan for details). Tree species have been selected to enhance local landscape character, increase visual interest and support biodiversity.

## Level Changes & Site Drainage:

To minimise required ground level changes and interference with site drainage/hydrology, the tennis court footprint will be regraded (see section plan) by “cut and fill” method. This will result in no waste soil transported from site. New “cut” banks will be at maximum angle of 30 degrees. All banks will be either seeded with wildflower mix or laid with wildflower turf.

The surface of the tennis court is porous (see Contractors specifications) and will allow infiltration of rainfall. However, as a precaution, drainage channels/soakaways will be installed (see Contractors specifications) at the base of regraded slopes for additional storm water catchment. Whilst the tennis court should produce no additional surface runoff during rainfall, the 50m to the Olchon Brook ensures an adequate distance to protect against potential contaminants entering the watercourse. The new woodland planting will also act as a bio-filtration strip, improving soil structure and increasing the soil’s capacity to absorb/treat any runoff by vegetative filtering.

A proportion of the site will be turned from species-poor grassland (with impeded drainage) to wildlife attracting swathes of naturalistic planting. The resultant improvement in soil structure with increased infiltration and root absorption will also reduce surface water drainage issues. The wildlife pond is to be situated at a low point in the Southern Field which currently acts as a natural catchment area during high rainfall. This feature of the site will be enhanced through appropriate design and planting (see plans below and ecological report).

It is recommended that the downpipes from the roof guttering of the property are connected with water storage units which will harvest the rainwater to supply the garden and possibly the pond and wetland area. These can be installed with a diverter so that the water butts can be positioned in suitable locations. Gravity fed overflow systems can ensure any excess is also diverted to the pond and wetland area via a flexible hose.



## Biodiversity

*See supporting Ecological Report*

The estimated 16 million gardens in the UK cover around 270,000 hectares (667,000 acres). Their collective potential as a haven for wildlife is therefore considerable. The proposed landscape design for Great House relates to this wider context through the application of ecological design principles and detailed analysis of the Local Biodiversity Action Plan. Viewed as one piece in a larger and more complex mosaic of habitats, the garden will contribute to the protection of local and regional biodiversity, forming a stronger link within the area's habitat corridors.

Herefordshire's Biodiversity Action Plan (2005) identifies The Black Mountain's (and surrounding lowlands) as a landscape of high ecological importance. Furthermore, this area has been selected as one of only four Biodiversity Enhancement Areas within the county. The environment which surrounds the property is notable for the riparian ecosystem of the Olchon Brook; lowland meadows and pasture; orchards; remnants of semi-ancient woodland and hedgerow. Each of these habitats is important for supporting biodiversity and for their function as wildlife corridors.

The proposed landscaping scheme for Great House aligns with the Biodiversity Action Plan and addresses (on a small scale) many of the key issues and concerns identified therein. The scheme will incorporate a range of micro-climates and habitat types which can be classified as follows:

- Planting new Riparian/Native mixed woodland with understory (1300m<sup>2</sup>)
- Establishing new Pond/aquatic habitat (230m<sup>2</sup>)
- Planting new pond margins and surrounding wildlife habitat (800m<sup>2</sup>)
- Maintaining all existing hedgerows and woodland
- Establishing wildflower meadow (eventually 1000m<sup>2</sup>)
- Planting nectar-rich perennial borders with winter seedheads

This mosaic of habitats will provide shelter and food for mammals, invertebrates, reptiles, amphibians and birds. Plant species have been specifically selected for their ability to establish suitable communities. In addition to meeting these aims, priority species identified within the Biodiversity Action Plan (in italics below) will also benefit.

Planting of meadow to include:

*Fritillaria meleagris*, green winged orchid *Orchis morio*, pepper saxifrage *Silene silaus*,



## Environmental Management:

The Appointed Contractor is advised to prepare a Soil Resource Plan as part of the Materials Management Plan showing the areas and type of topsoil and subsoil to be stripped, haul routes, the methods to be used, and the location, type and management of each soil stockpile. The following best practice should be adhered to:

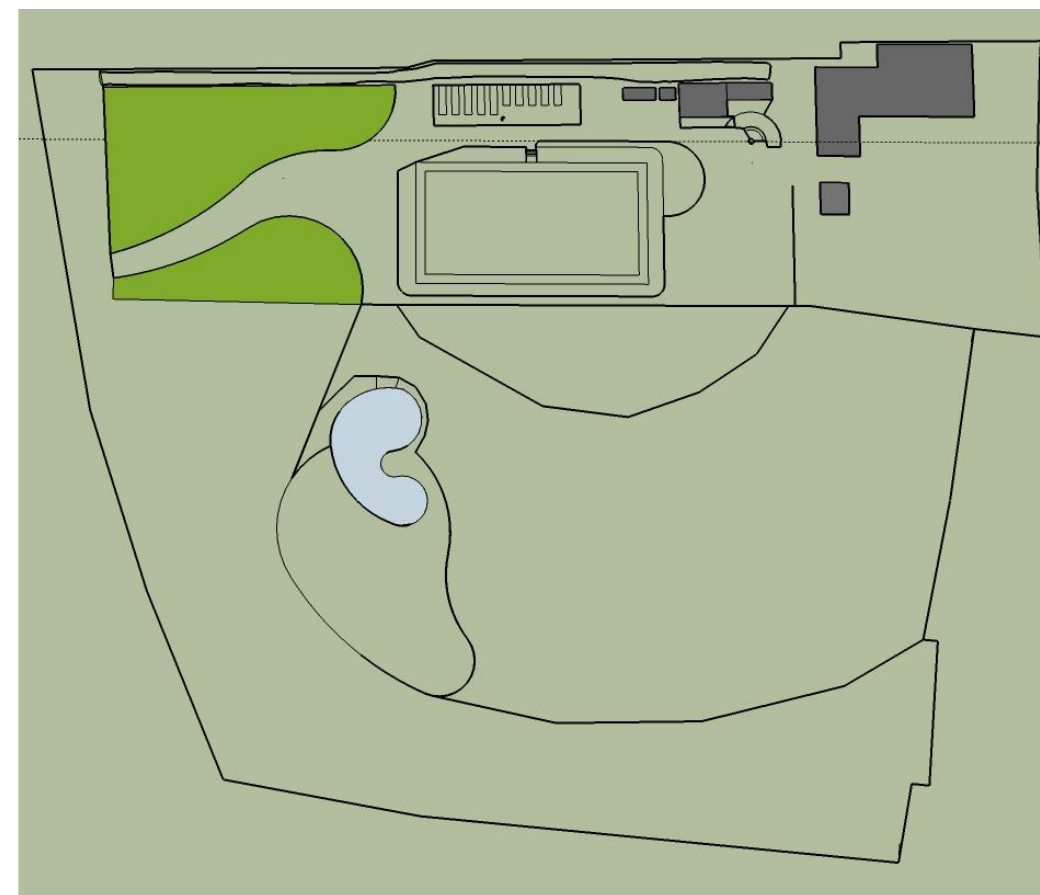
- **Due to proximity of Olchon Brook, no fuel or chemicals to be stored on site unless within suitable emergency spill containment.**
- During construction, avoid compaction of areas to be landscaped, especially under any established trees. Suitable root protection zones should be established, ideally to the extent of the tree's crown. If this is not possible the minimum distance must be fenced off (radius of 12 x trunk diameter).
- When stripping, stockpiling or placing soil, do so in the driest condition possible and use tracked equipment where possible to reduce compaction.
- Confine traffic movement to designated routes.
- Keep soil storage periods as short as possible.
- Clearly define stockpiles of different soil materials and avoid contamination of soil stockpiles with any materials/chemicals.
- Ensure all construction waste is removed appropriately with no on-site burying.

To minimise the need to import/export soil, all excavated material from the pond is to be retained on-site and used to create hibernacula/bunds and to infill the raised planting beds.

## New Woodland Planting

Planting of mixed, native woodland trees and shrubs (roughly 1/3 of an acre) with species determined from a site assessment, ecological survey and Local Biodiversity Action Plan. This area will extend the Riparian/Woodland habitat around the Olchon Brook towards the property. It creates a buffer zone between the natural landscape and the garden, providing a screen to filter any visual impact associated with the tennis court. Due to the presence of overhead cables (see hatched line on Planting Plan below) the swathe of woodland directly beneath this should be managed as Hazel Coppice.

- The soil should be prepared in late summer or early autumn when the ground is dry to avoid compaction. Grass and weeds to be removed by digging or rotovator (weed killer not to used this close to the Olchon Brook).
- Holes for trees should be dug roughly at 1.5 metre centres, though a uniform grid is to be avoided. Therefore, some more open areas (up to 3m spacing) and some more tightly packed (down to 0.75m) will create a more natural scheme and provide a greater range of micro-climates.
- Perennials, grasses and bulbs planted at the woodland edge should be planted in groupings of the same species, with borders intermingling adjacent species to avoid hard transitions.
- Saplings (at least 300mm) should be planted out between October to March. The trees should be handled carefully and the roots should not be allowed to dry out or become damaged. They should all be protected from rabbit damage with a suitable sleeve. All plants should be bareroot, healthy and from a reputable local supplier.
- To provide some immediate impact and visual screening it is recommended that the main planting of saplings includes some larger standards up to 3m in height (see planting plan).
- Depending on the survival rate of saplings, some thinning out will be required every 5-10 years. Thinning out should follow established guidelines (see [http://www.forestry.gov.uk/pdf/so-you-own-a-woodland.pdf/\\$FILE/so-you-own-a-woodland.pdf](http://www.forestry.gov.uk/pdf/so-you-own-a-woodland.pdf/$FILE/so-you-own-a-woodland.pdf) ).



## Woodland Tree & Shrub Planting Plan

**1a)** 30 x Oak (*Quercus robur*), 20 x Field maple (*Acer campestre*), 10 x Hazel (*Corylus avellana*), 10 x Silver birch (*Betula pendula*), 10 x Elder (*Sambucus nigra*) 10 x Dogwood (*Cornus sanguinea*), 10 x Dog rose (*Rosa canina*), 5 x Holly (*Ilex aquifolium*), 5 x Yew (*Taxus baccata*),

**2a)** 40 x Silver birch (*Betula pendula*), 15 x Wild cherry (*Prunus avium*), 5 x Hawthorn (*Crataegus monogyna*), 5 x Crab apple (*Malus sylvestris*), 10 x Dog rose (*Rosa canina*), 20 x Dogwood (*Cornus sanguinea*),

**2b)** 50 x Silver birch (*Betula pendula*), 15 x Dogwood (*Cornus sanguinea*),

**3a)** 30 x Hazel (*Corylus avellana*), 3 x Yew (*Taxus baccata*), 1 x Holly (*Ilex aquifolium*),

**3b)** 50 x Hazel (*Corylus avellana*), 5 x Yew (*Taxus baccata*), 3 x Holly (*Ilex aquifolium*), 5 x Silver birch (*Betula pendula*) planted at Western edge,

Recommended positions for larger **Silver birch standards** are indicated with circles.

All of the above areas to be sown with a native woodland wildflower & grass seed mixture during planting (see next page).

## Woodland Edge Planting Plan

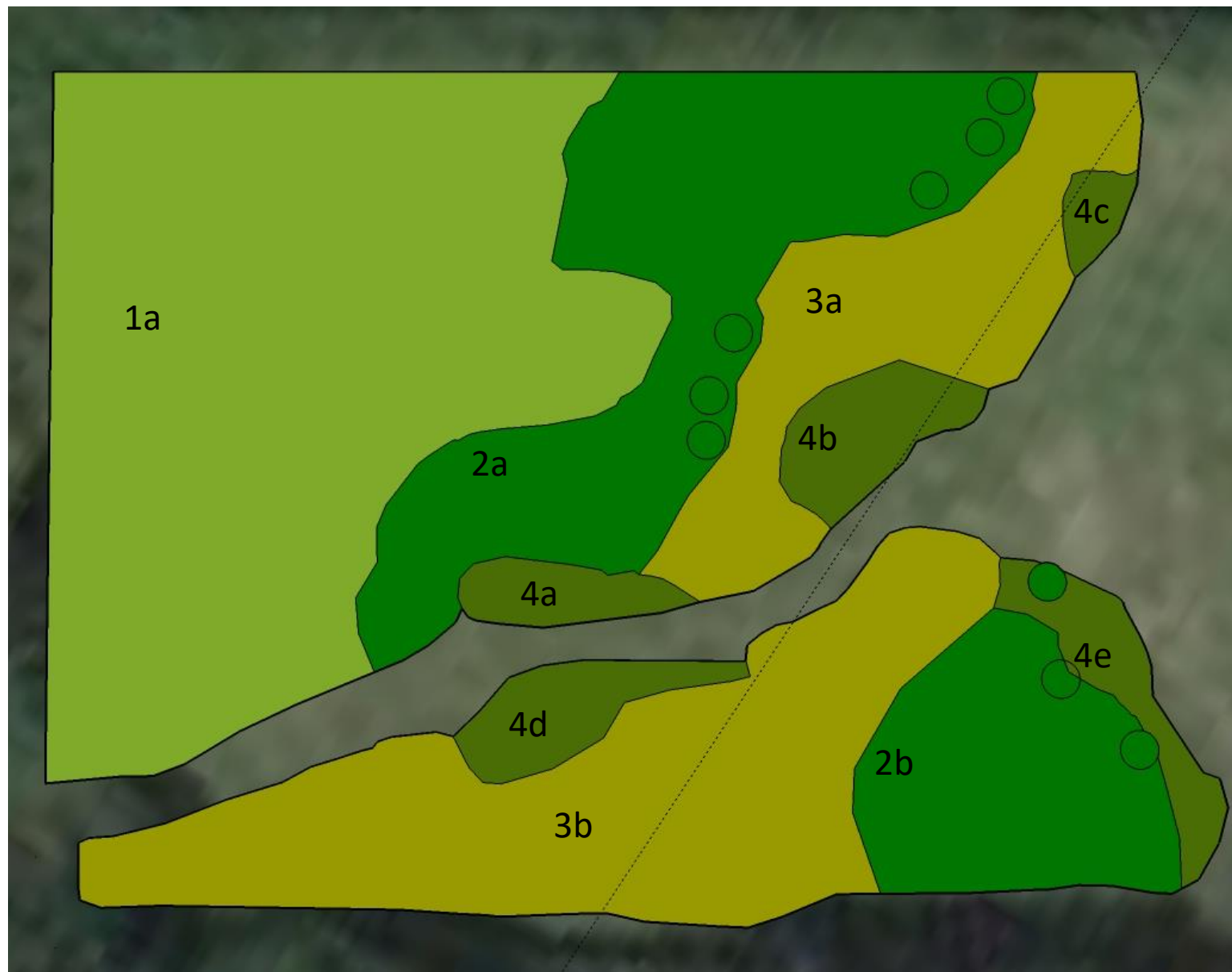
**4a)** 60 x Wood anemone (*Anemone nemorosa*), 15 x Golden Male Fern (*Dryopteris affinis*), 15 x Harts tongue fern (*Asplenium Scscolopendrium*), 20 x Maidenhair spleenwort (*asplenium trichomanes*), 12 x Carex Pendula, 12 x Digitalis Alba, 9 x Solomons Seal (*Polygonatum x hybridum*),

**4b)** 30 x Deschampsia cespitosa, 30 x Carex Pendula, 30 x Foxglove (*Digitalis Purpurea*), 12 x Red Campion (*Silene diocia*), 120 x bluebell (*hyacinthoides non-scripta*) Blue bell, 30 x Wood Cranesbill (*Geranium Sylvaticum*), 30 x Dog violet (*Viola riviniana*), 15 x Nettle-leaved Bellflower (*Campanula Trachelium*)

**4c)** 1 x Rhus typhia, 5 x Mahonia japonica

**4d)** 60 x Wood anemone (*Anemone nemorosa*), 15 x Golden Male Fern (*Dryopteris affinis*), 15 x Harts tongue fern (*Asplenium Scscolopendrium*), 20 x Maidenhair spleenwort (*asplenium trichomanes*), 12 x Carex Pendula, 12 x Digitalis Alba, 9 x Solomons seal (*Polygonatum x hybridum*),

**4e)** 30 x Dogwood (*Cornus Alba*), 15 x Persicaria bistorta, 9 x Actea simplex 30 x Bowles Golden Sedge (*Carex elata Aurea*), 9 x Bottlebrush Buckeye (*Aesculus parviflora*), 9 x Ostrich-feather Fern (*Matteuccia struthiopteris*)



## Wildflower Meadow & Woodland Understory:

These areas will provide an important habitat for invertebrates if grasses and flowers are allowed to go to seed before mowing (twice yearly). A suitable mix should be requested from a reputable specialist who will provide habitat specific mixes. Ideally, all the following species should be sown to allow the more successful species to find their own niche habitats.

*Grasses which will grow in woodland conditions or shade include:*

**Common Bent (*Agrostis capillaris*), Crested Dog's-tail (*Cynosurus cristatus*), Red Fescue (*Festuca rubra ssp. Rubra*), Sheep's Fescue (*Festuca ovina*), Slender Creeping Red Fescue (*Festuca rubra ssp. Litoralis*), Smooth Stalked Meadow Grass (*Poa pratensis*), Sweet Vernal Grass (*Anthoxanthum odoratum*), Tufted Hair-grass (*Deschampsia cespitosa*), Wood Meadow Grass (*Poa nemoralis*).**

*Wild flowers suitable for woodland or shade include:*

**Agrimony (*Agrimonia eupatoria*), Angelica (*Angelica sylvestris*), Betony (*Betonica officinalis*), Birds-foot-trefoil (*Lotus corniculatus*), Broad-leaved Helleborine (*Epipactis helleborine*), Common Dog Violet (*Viola riviniana*), Common Spotted Orchid (*Dactylorhiza fuchsii*), Cowslip (*Primula veris*), Devil's-bit Scabious (*Succisa pratensis*), Early Purple Orchid (*Orchis mascula*), Figwort (*Scrophularia nodosa*), Foxglove (*Digitalis purpurea*), Garlic Mustard (*Alliaria petiolata*), Hairy St. John's Wort (*Hypericum hirsutum*), Hedge Bedstraw (*Galium album*), Hedge Woundwort (*Stachys sylvatica*) Hemp-agrimony (*Eupatorium cannabinum*) Herb Robert (*Geranium robertianum*) Meadowsweet (*Filipendula ulmaria*), Nettle-leaved Bellflower (*Campanula trachelium*), Primrose (*Primula vulgaris*) Ragged Robin (*Silene flos-cuculi*), Ramsons (*Allium ursinum*), Red Campion (*Silene dioica*), Scarlet Pimpernel (*Anagallis arvensis*), Selfheal (*Prunella vulgaris*), Square-stalked St John's-wort (*Hypericum tetrapterum*), Tutsan (*Hypericum androsaenum*), Upright Hedge-parsley (*Torilis japonica*), Water Avens (*Geum rivale*), Wood Avens (*Geum urbanum*), Wood Sage (*Teucrium scorodonia*).**

*Bulbs include:*

**Bluebell (*Hyacinthoides*), Wild Tulip (*Tulipa Sylvestris*), Snakes Head Fritillary (*Fritillaria meleagris*), Autumn Crocus (*Colchicum autumnale*).**



## Wildlife Pond & Surrounding Habitat Area

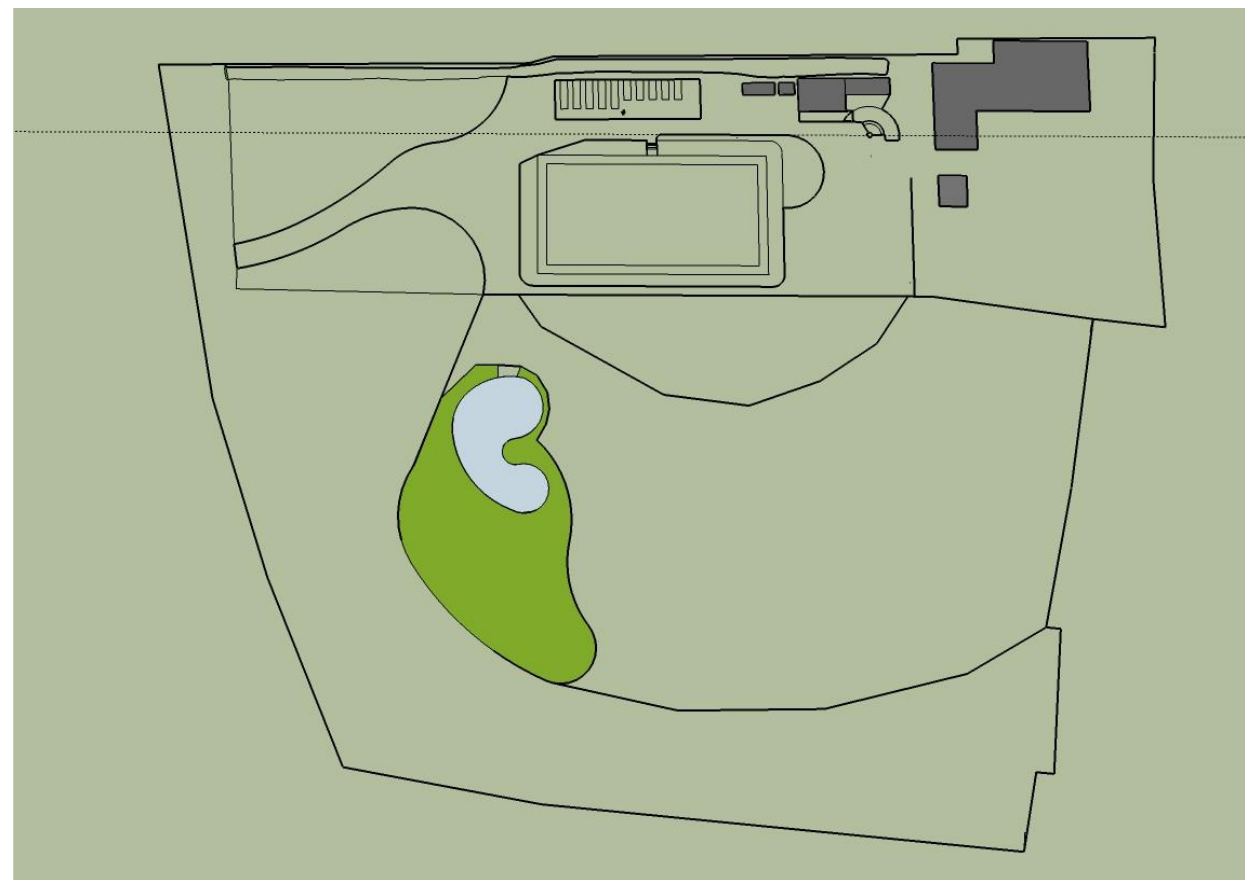
To be read in conjunction with Ecological Report

The Wildlife Pond, positioned at the lowest point in the Southern field is a kidney shape which is 22.5 metres along its main axis. The pond will be excavated with shelves of varying depth (to a maximum 1.5m), providing a range of aquatic habitat niches. Suitable species (as recommended in the Ecological Report) will be planted in appropriate locations to establish a self regulating mini-ecosystem. One edge of the pond will be set with a wooden platform for viewing and accessing the pond for maintenance. If initial test pits find the substrate provides too much drainage, it is proposed that the pond be lined with locally sourced Puddle Clay for ecological reasons and for long-term sustainability. During extended periods of dry weather the pond may require occasional topping up from a rainwater harvesting system. Excavated soil to be used to create bunds as hibernacula and for raised beds.

The wildlife habitat area (800m<sup>2</sup>) between the pond and the surrounding tree belt will be planted with predominantly marginal/bog plants and native shrubs/perennials selected to provide habitat, shelter and food for wildlife throughout the year.

## Lower Field

The field surrounding the pond and wildlife habitat area will be left as grassland. To enhance biodiversity areas will be reseeded as a wildlife meadow. These will be established by the owners, over time as a patchwork of trials, eventually linking up as a mosaic habitat. It is recommended that wildflower seed mix and bulbs come from a local nursery due to potential for localised species adaptation.



## Wildlife Habitat Planting Plan

Pond to be planted as per recommendations in ecological report.

5a) 10m<sup>2</sup> - 3 x *Sanguisorba Canadensis*, 3 x *Veronicastrum viginiicum*, 3x *Aruncus dioicus*, 12 x *Pennisetum alopecuroides*, 3 x Feather Reed Grass (*Calamagrostis brachytricha*), 3 x *Actaea racemosa*, 3 x *Stipa gigantea*, 15 x *Stipa tenuissima*,

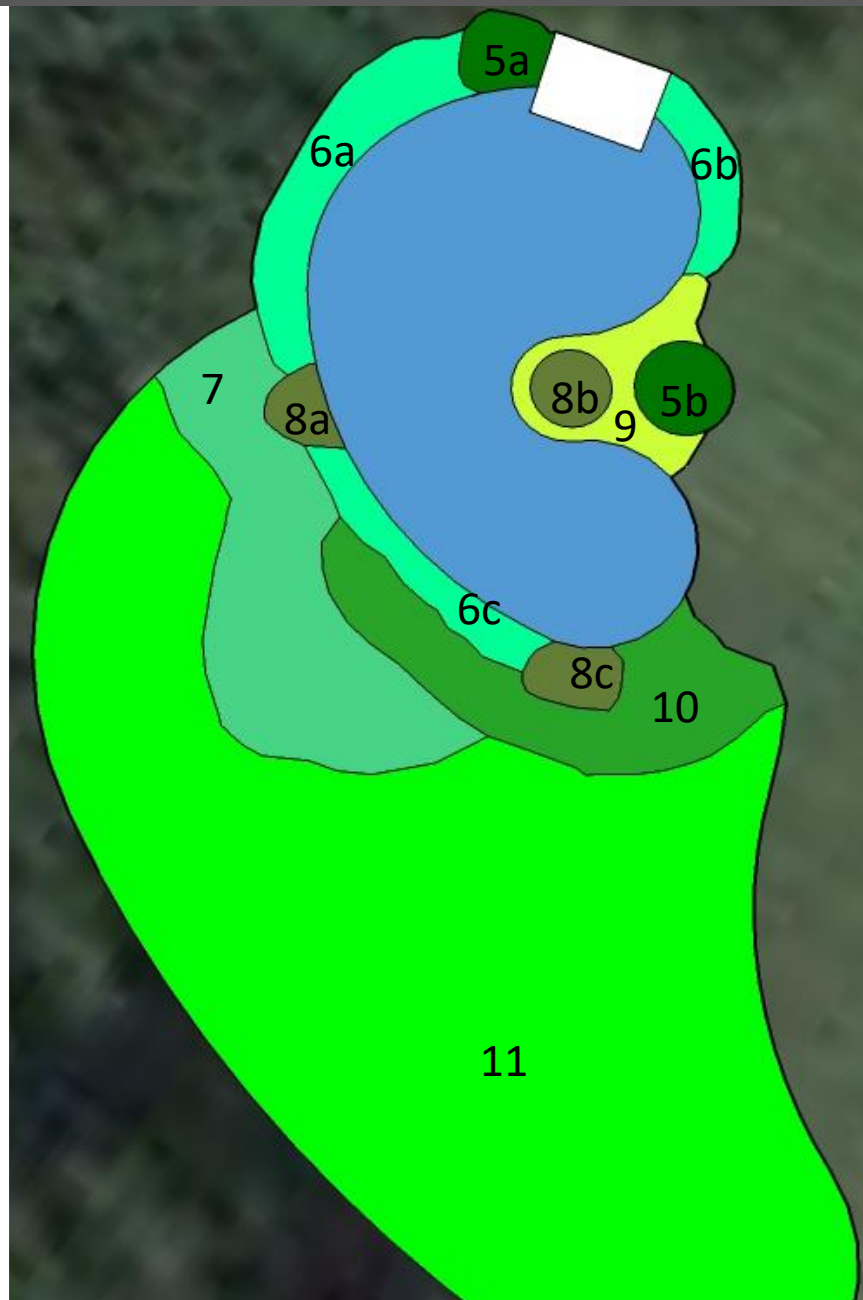
5b) 10m<sup>2</sup> - 3 x *Sanguisorba Canadensis*, 3 x *Veronicastrum viginiicum*, 3x *Aruncus dioicus*, 12 x *Pennisetum alopecuroides*, 3 x Feather Reed Grass (*Calamagrostis brachytricha*), 3 x *Actaea racemosa*, 3 x *Stipa gigantea*, 15 x *Stipa tenuissima*,

6a) 30m<sup>2</sup> – 30 x Yellow Iris (*Iris pseudacorus*), 60 x *Carex Pendula*, 60 x *Carex elata* 'aurea',

6b) 14m<sup>2</sup> – 30 x ragged robin (*Lychnis flos-cuculi*), 40 x *Carex elata* 'aurea', 30 x *Typhia minima*

6c) 15m<sup>2</sup> – 30 x *Persicaria bistorta*, 30 x *Carex elata*, 12 x *Carex Pendula*

7) 110m<sup>2</sup> - 12 x Blue Cardinal Flower (*Lobelia siphilitica*), 30 x *Lysimachia clethroides*, 9 x Ostrich-feather Fern (*Matteuccia struthiopteris*), 15 x *Rodgersia pinnata*, 30 x Goats Beard (*Aruncus Aethusifolius*), 9 x Goats Beard (*Aruncus dioicus*), 30 *Actea racemose*, 9 x Teasal (*Dipsacus fullonum*), 9 x Feather Reed Grass (*Calamagrostis brachytricha*),



8a) 7m<sup>2</sup> - 3 x Royal Fern (*Osmunda regalis*), 1 x *Gunnera manicata*

8b) 7m<sup>2</sup> - 9 x Royal Fern (*Osmunda regalis*), 1 x *Rheum palmatum*, 15 x *Astilbe chinensis*

8c) 7m<sup>2</sup> - 3 x Royal Fern (*Osmunda regalis*), 1 x *Gunnera manicata*

9) 22m<sup>2</sup> - 30 x *Carex elata*, 90 x Orchid Primrose (*Primula Vialli*),

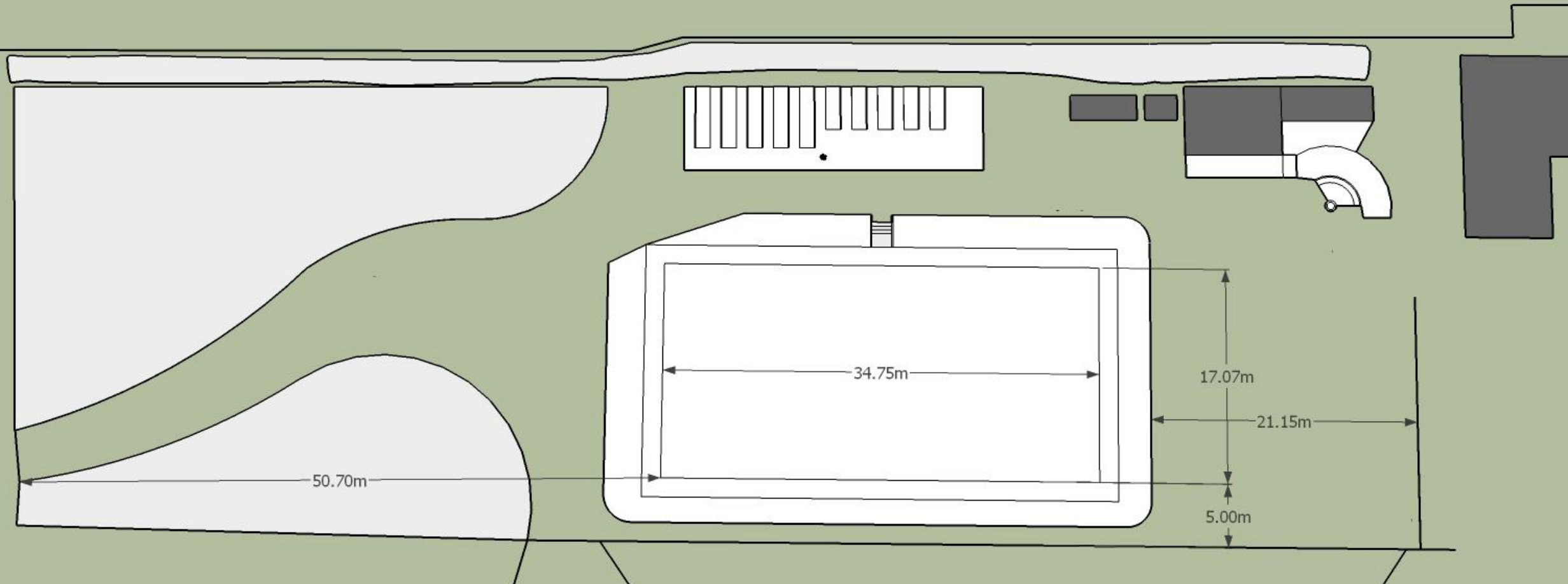
10) 57m<sup>2</sup> - 45 x Dogwood (*Cornus Alba*)

11) This area to be planted with the following species, (planted in same-species islands of 3-9 plants ) with the spaces between clusters being sown with a wildflower and grass seed mix:  
30 x Chinese Witch Hazel (*Hamamelis mollis*), 30 x *Inula hookeri*, 30 x *Eupatorium purpureum*, 30 x *Verbena hastata*, 30 x Dogwood (*Cornus sanguinea*), 60 x Foxglove (*digitalis species*), 30 x Feather Reed Grass (*Calamagrostis brachytricha*)

## Tennis Court Measurements

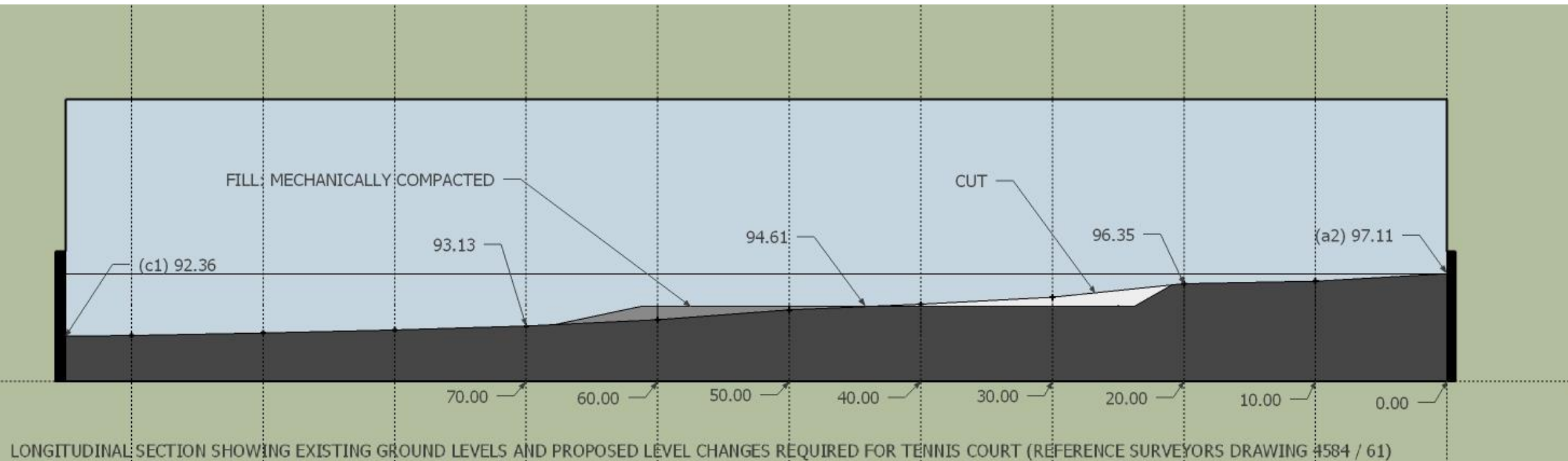
*See Contractor's specifications for details of materials, construction, drainage and management.*

The tennis court is to be located at a distance of over 50m from the Olchon Brook. A distance of 5m has been given from the South bounding fence to ensure that cut banks do not impact the root protection zone of adjacent trees.

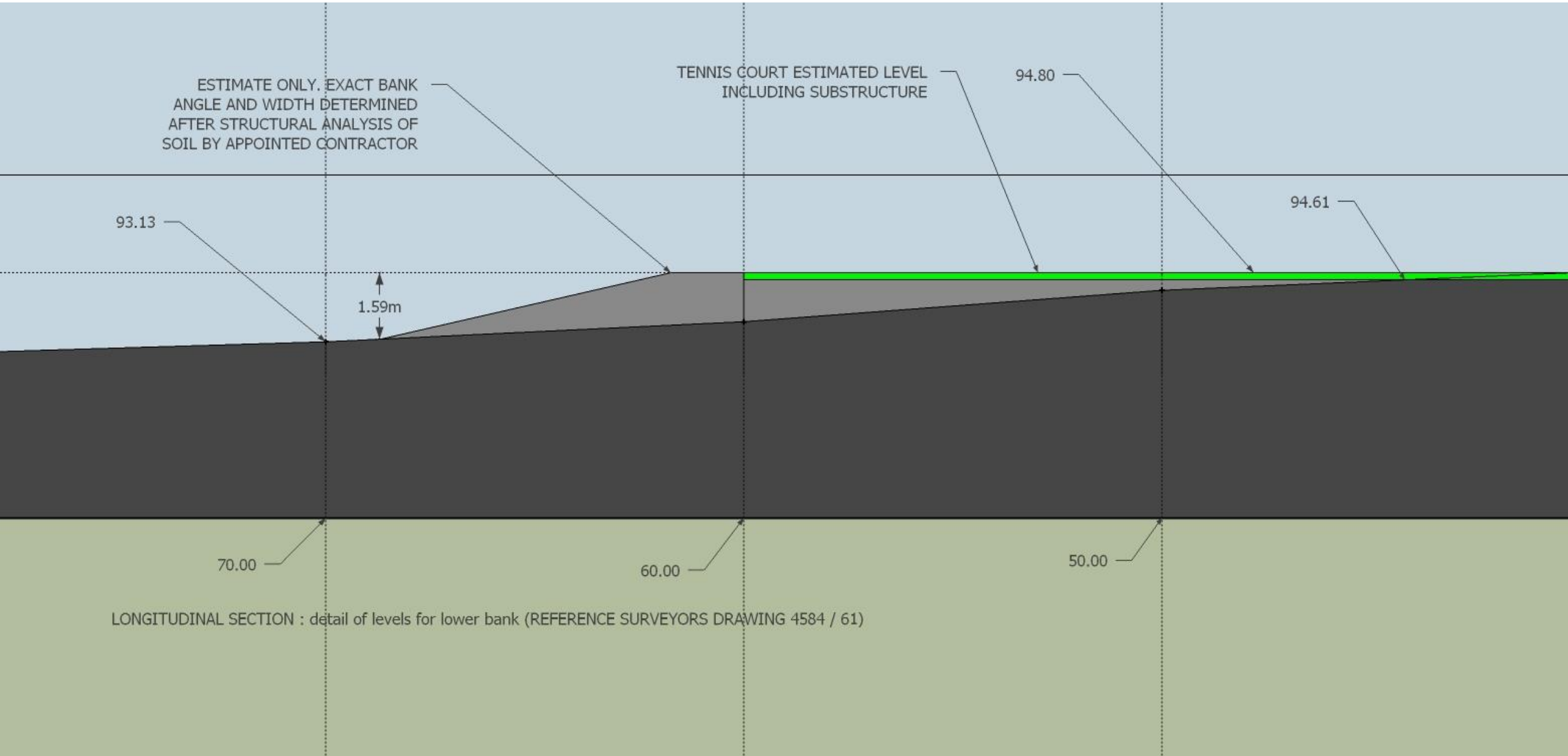


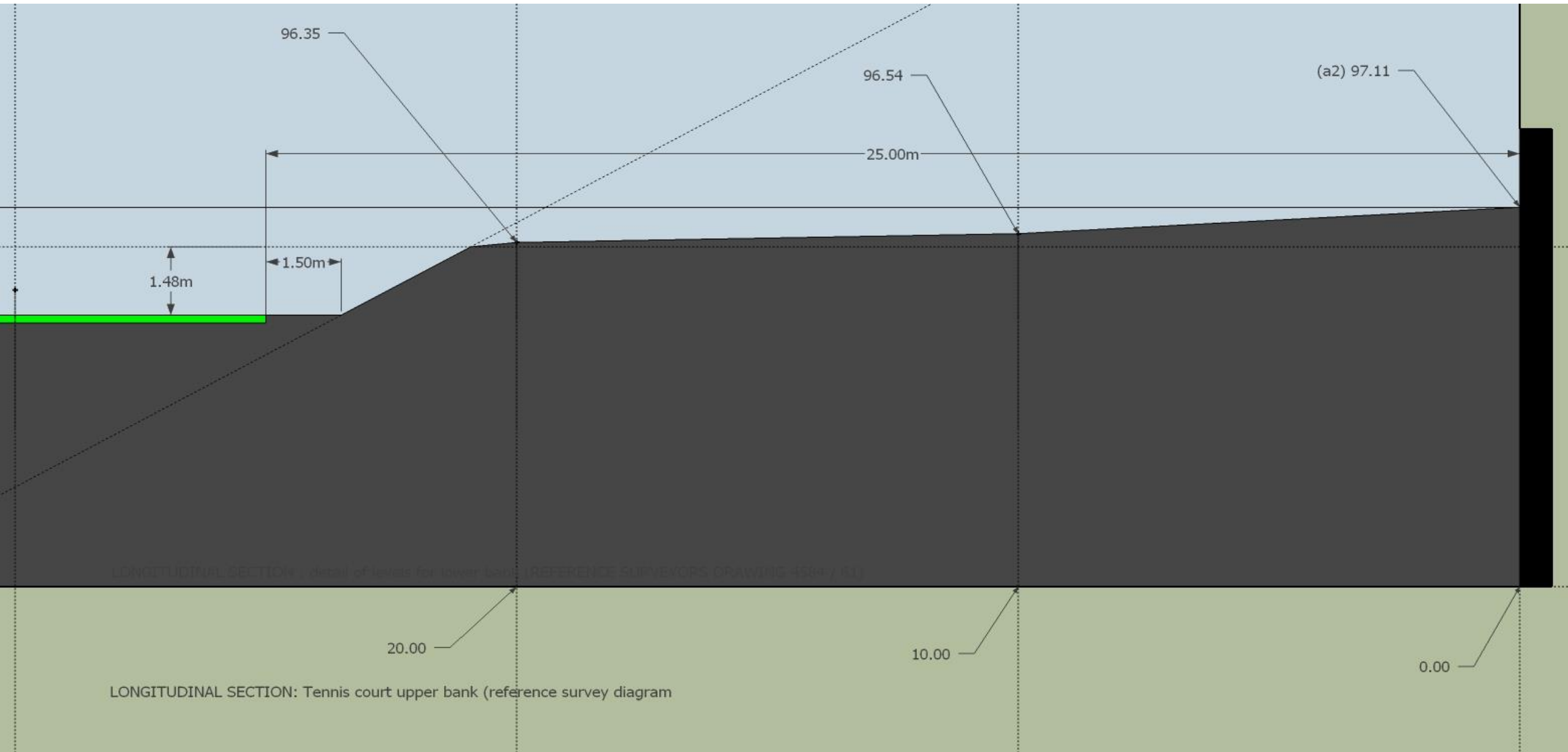
## Tennis Court Section

The regrading of levels required for the tennis court has been calculated with data inputted from the topographic survey. The longitudinal sections follow the same axis as that on the survey drawing 4584 / 61 with Reference points (a2) and (c1). The diagrams below provide a practical estimate of the new levels (using “cut and fill”). Final levels and angles may vary slightly due to the structural qualities of the soil and will require soil analysis by the appointed contractor to determine exact gradients. For schematic purposes the sections below are calculated on the likely values of 30 degrees for cut banks, and 15 degrees for fill banks.



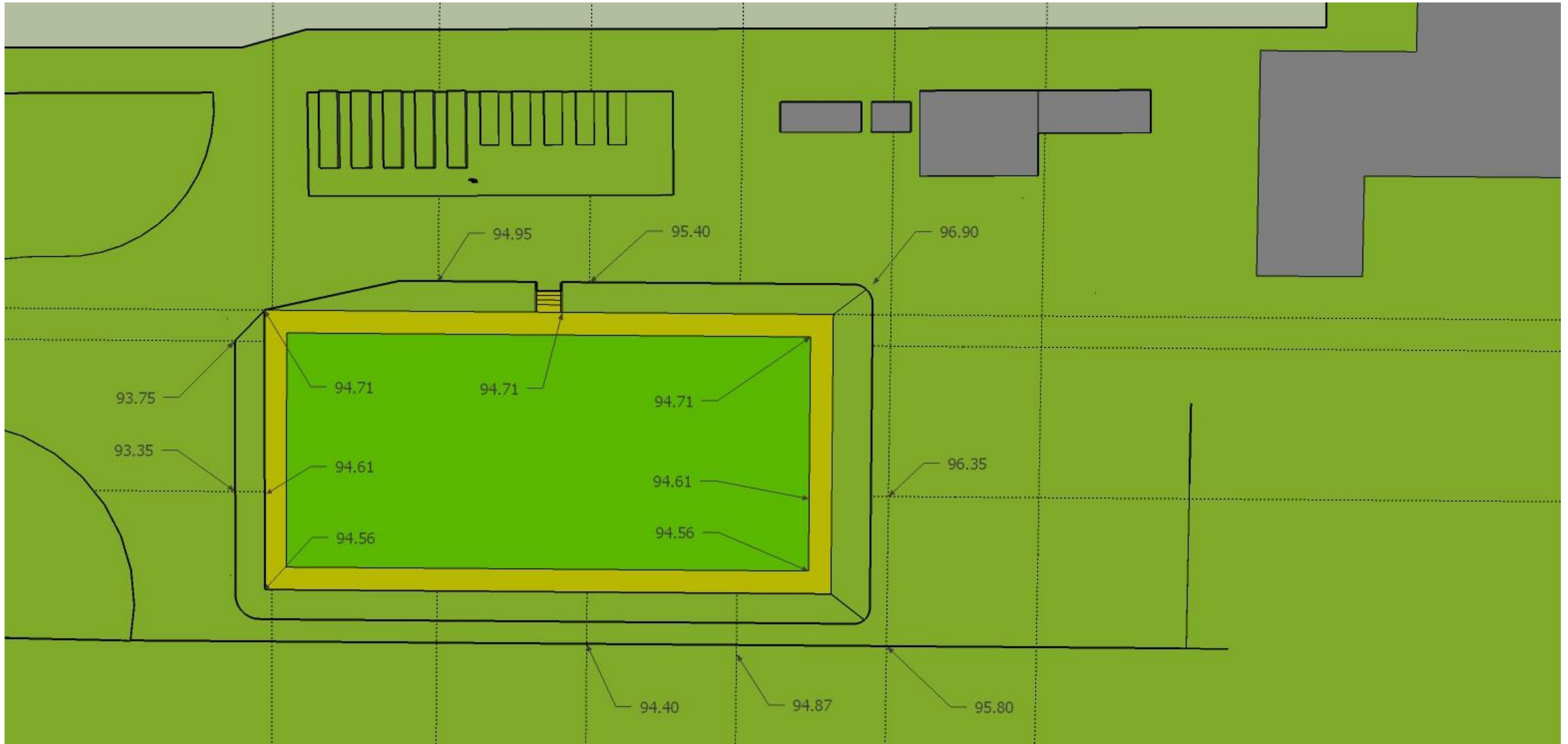




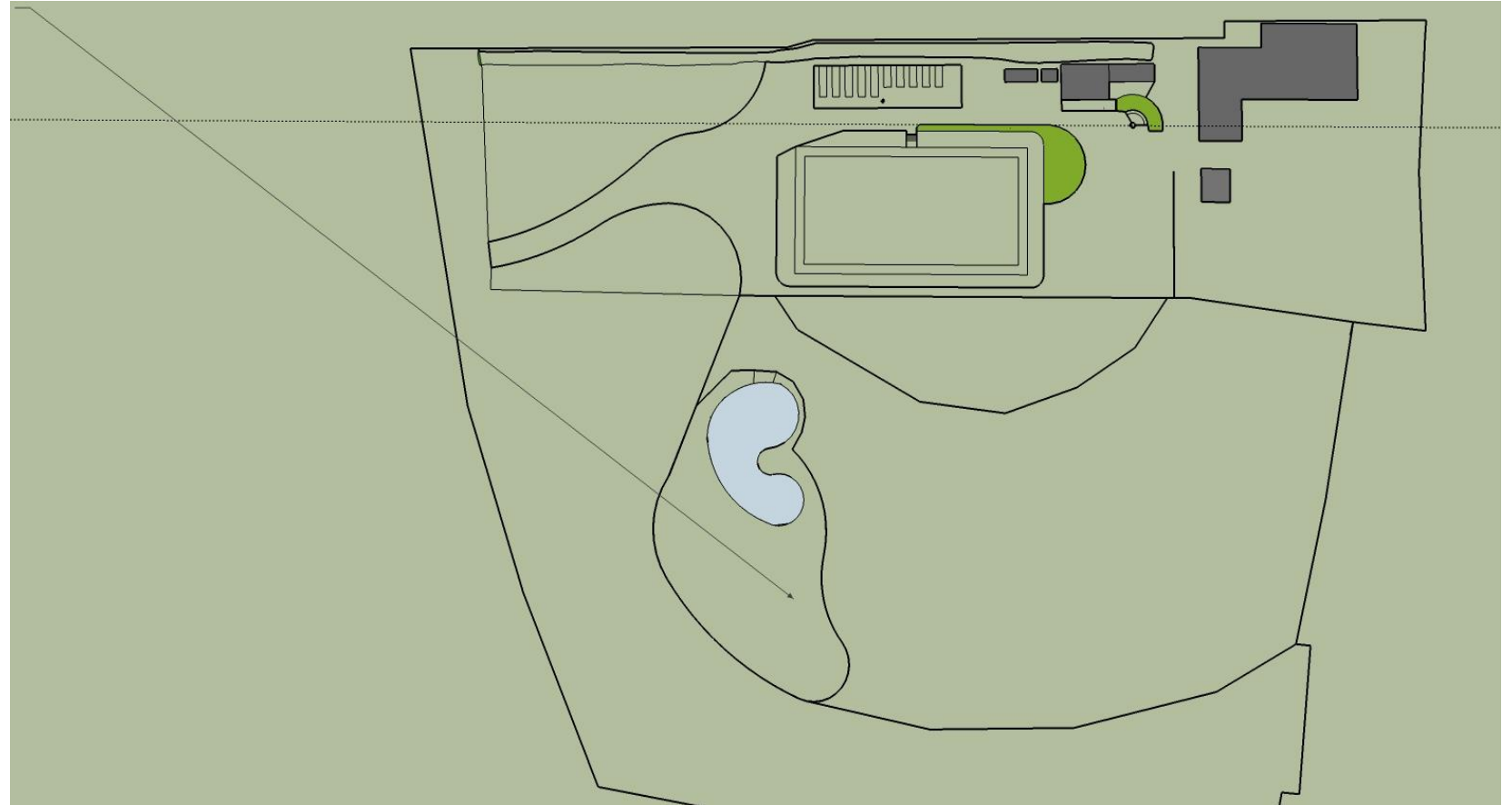


## Tennis Court Levels

Calculated from datum as per Survey Drawing 4584 / 61. Surface of tennis court laid at 1:100 fall.

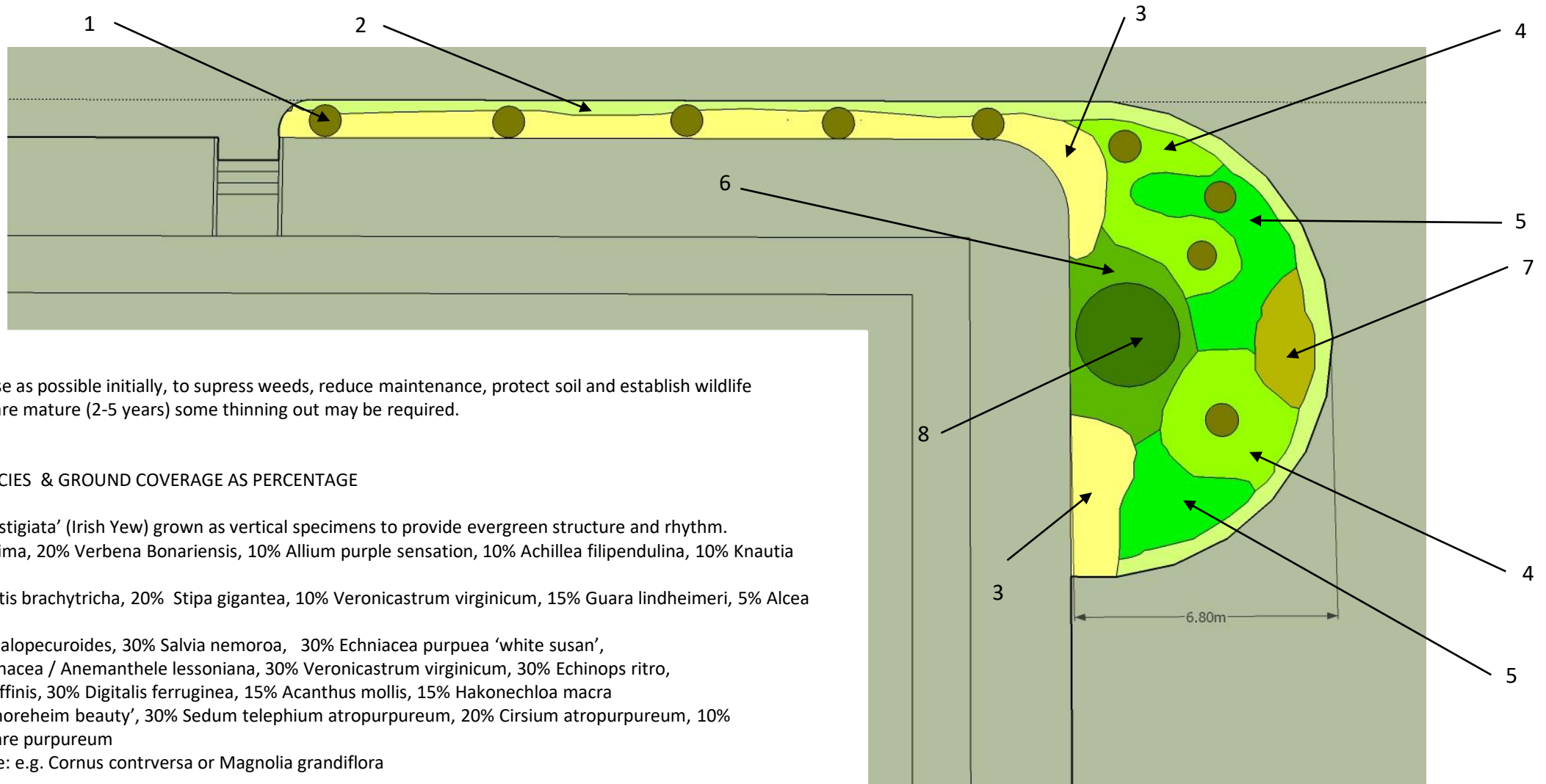


This area to be planted with the following species, (planted in same-species islands of 3-9 plants ) with the spaces between clusters being sown with a wildflower and grass seed mix.





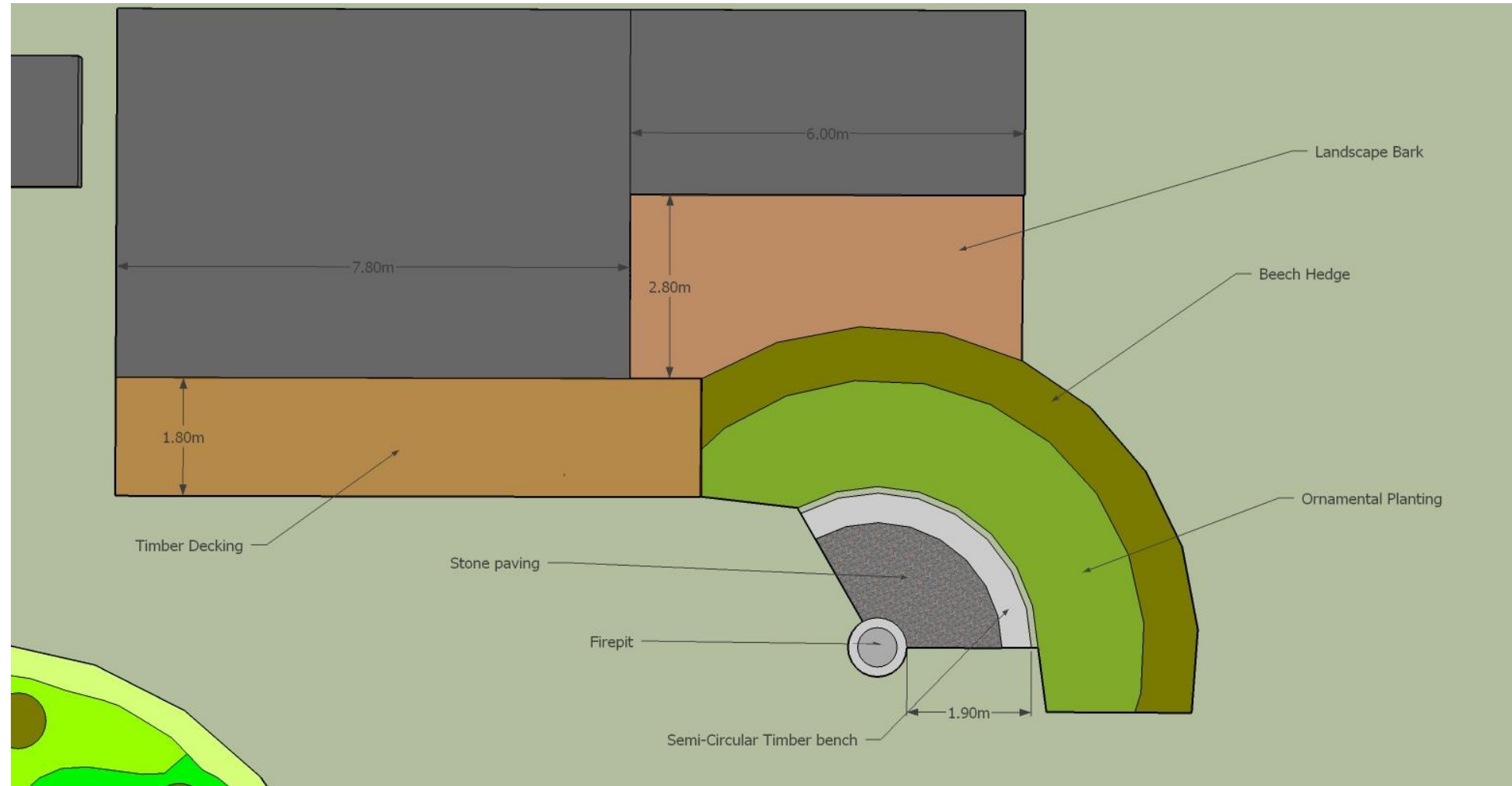
## Planting Plan: Tennis Court perimeter, North East corner



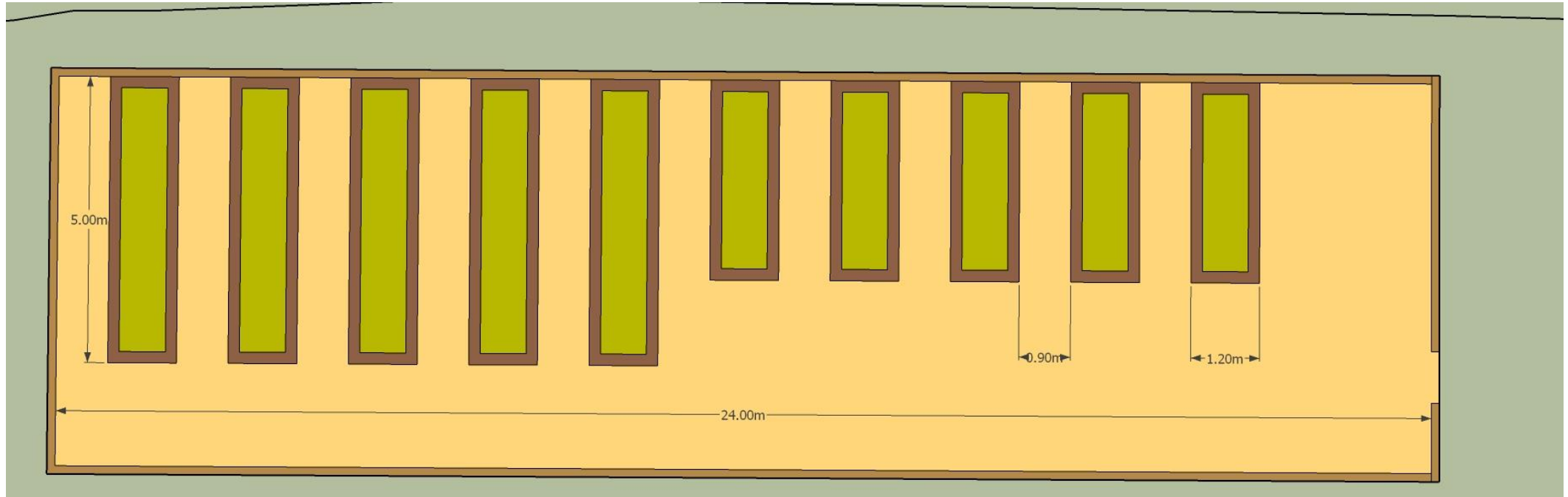
## Outdoor Seating Area

The outdoor seating area is positioned to provide views of the garden and the Black Mountains. The small area (3.5m<sup>2</sup>) of stone paving will utilise reclaimed pavers selected to best match those around the main property. The semi-circular wooden bench has a firepit as its focus for evening enjoyment. The area is given a greater sense of intimacy by being enveloped within a curve of planting. A formally clipped Beech hedge provides the structural backdrop for a mixed planting of textural grasses and scented bloom:

*Stipa tenuissima*, *pennisetum orientale*, *Lavandula angustifolia*, *Lilium regale*, *Viola odorata*, with fragrant climbers planted to ramble through the hedge: e.g *Lonicera heckrotti*, *Rosa 'New Dawn'*.



## Potager Garden



The Potager Garden, runs along the boundary of the property immediately North of the tennis court. It establishes the axial walkway running through the garden, between the tennis court and the Potager fence. The location makes the most of available sunlight, avoiding the shade cast by surrounding trees. The perimeter of the area is enclosed within a decorative hazel hurdle fence (the newly planted hazel coppice will provide materials for future replacement). The fence creates a sheltered micro-climate for vegetables to grow and provides a structure to grow ornamental climbers (e.g. Roses, Honeysuckle and Clematis) alongside cottage garden border plants (e.g. Foxglove, Lupins, Delphinium, Catmint, Kniphofia, Salvia, Verbascum, Sea Holly, Dahlia).

The raised planters are constructed from FSC certified Pine Railway Sleepers. Soil from pond excavation to be mixed with garden compost and used as fill.



## General Planting Considerations

Try to buy plants locally if possible. If plants come from locally grown stock they may have adapted slightly to the local/regional climate.

After buying plants from a garden centre they will need to acclimatise – do not plant them immediately. Always leave them for a week in their pots in a sheltered position in the garden. Water daily! If its final planting location is exposed, move the plant here for another week before planting out.

Most plants will benefit from a winter mulch of straw during the coldest weather in their first year. This will protect the shallow roots till they grow deeper and become fully hardy.

All plants will require regular watering during the first season as they establish deeper root systems. Watering should however shift gradually from light and often to occasional soakings to encourage deeper root growth.

Mulch will improve soil structure and plant health. It also suppresses weeds and considerably reduces evaporation. This will both help save water and reduce the need for chemical sprays.

Try to buy smaller plants (check visually) rather than larger specimens as they will acclimatise and establish more quickly. Always pull plants out of their pots to check root health before purchasing.

Try growing from seed to save money, increase stock and learn about your plants.



## Planting in Heavy Soil:

If during planting of the ornamental beds, the soil is found to be heavy (which is likely) it is advisable to attempt some improvement of the soil, by working in organic matter. Mulching the surface of the soil will also help improve the texture. One of these materials is long manure (manure that still has a proportion of visible straw remaining) or composted bark. Finer grades of composted bark, leaf mould, leaf litter, garden compost or mushroom compost will still have a beneficial effect, but to a lesser extent. Digging coarse grit into the soil profile is often recommended, but the quantity required to have a beneficial effect makes this impractical.

When planting in heavy soils, the bottom of the planting hole should be broken up before planting and the sides of the hole broken down using a garden fork. If not loosened, a sump may be formed in that water can collect, resulting in probable plant death from waterlogging .

It is a good idea to delay planting on heavy clay soils until late winter or early spring, when there is less time for dormant roots to become waterlogged and cold.

Mulch the base of the plants in spring with a 7.5cm (3in) layer of well-rotted organic matter which will help to retain moisture and suppress weed growth. Leave a gap of 7.5cm (3in) between the stems and the mulch to decrease the chance of mould or rot developing at the base. Continually maintaining this mulch will gradually improve the soil profile.

Freezing and thawing over winter of ground dug in October aids soil breakdown and helps to form spring seedbeds.