Old Gloucester Road, Cheltenham, GL51 0SW

Landscape Design & Access Statement

jonathan king design

landscape architecture : garden design

JKD studio

21 Nov 2022

Executive summary

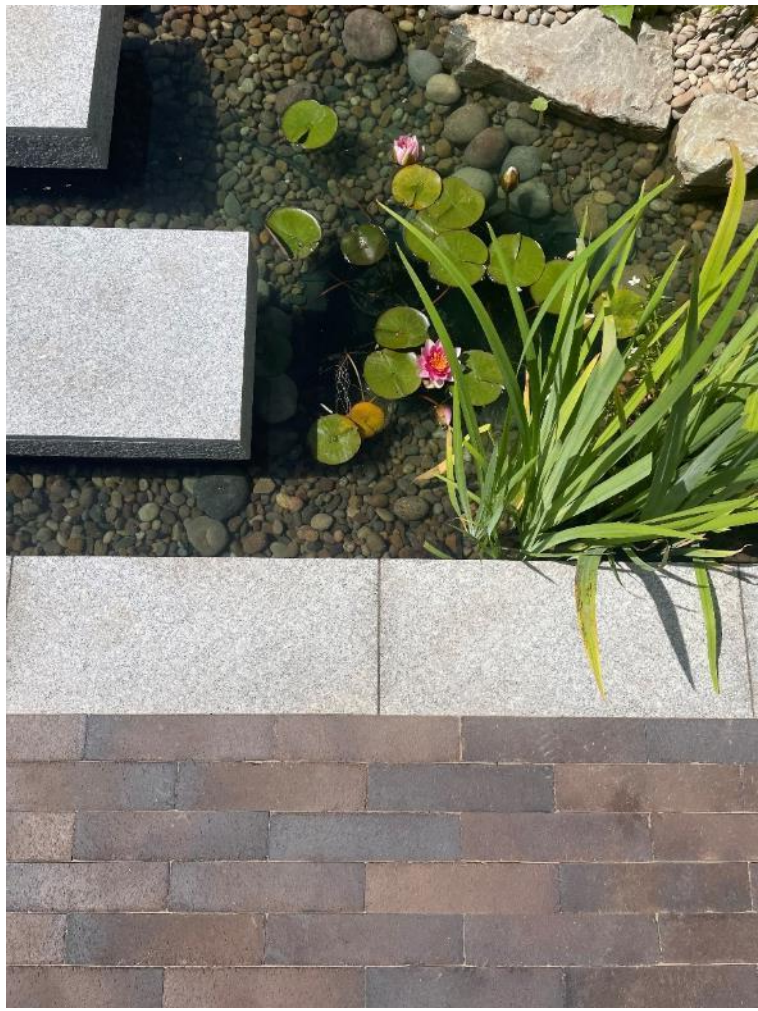
JKD Studio were commissioned by CROE Architects to undertake the landscape design to support the planning application for this development on the Old Gloucester Road in Hayden, near Cheltenham.

The development of the site gives the opportunity for the landscape to provide an ecologically focussed design response to the surrounding context, blend the buildings and link the central areas of the site. The surrounding hedgerows and trees provide an existing framework that can be managed and improved to ensure a visual and native ecological boundary. A long term sustainability strategy is core to the landscape approach which includes drainage and biodiversity improvements.

The entrance area and central driveway can contribute to sustainable drainage by collecting rainwater run off and allowing percolation via attenuation ponds planted with suitable native species. Pollinator species, native hedges & trees and heritage fruit trees can be included to improve biodiversity in this semi-rural location.

The bio-swale, trees and hedges act as a cohesive design element that links the whole development together either side of the access road. Feature signage walls provide that individual feel to plots with entrance overall feature walls and security gates clearly marking the threshold to the site.

The landscape design ensures a careful integration of contemporary architecture into a rural location that improves the biodiversity and reduces impacts on services through sustainable means.



Location

The site is situated on the Old Gloucester Road, near Hayden, Cheltenham. Surrounding land uses include agricultural holdings, equestrian facilities and residential houses along the B4634 road.

Architectural understanding

The architectural design by CROE Architects has a contemporary approach that uses linear form and a simplified material palette. The strong separation of layers using the extended border wrapping around the façade is a bold element. The façade materials can be referenced in landscape materials used for walls.

The floorplan layouts need to be understood so that access points, views from the house and functionality can create sensible external usable space. Solar orientation has a bearing on siting the external functional spaces as well as the proximity to roads and boundaries.

1 Ground Floor - As Proposed
1 : 50

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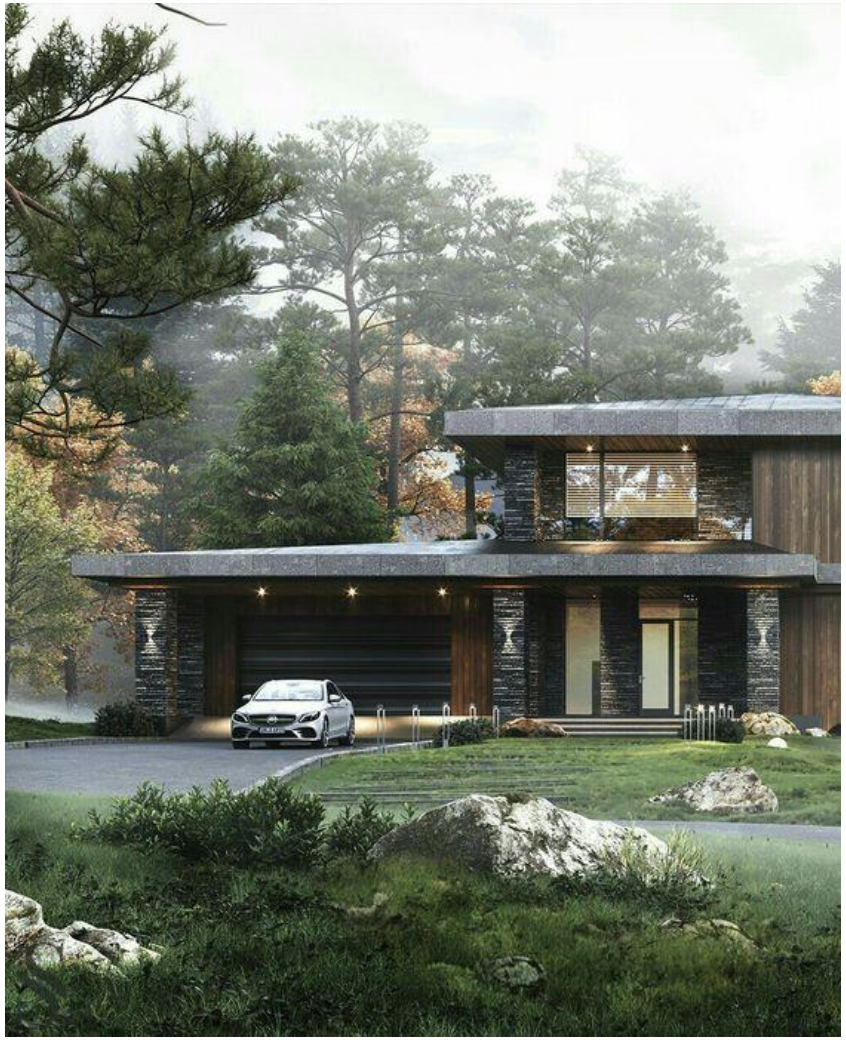
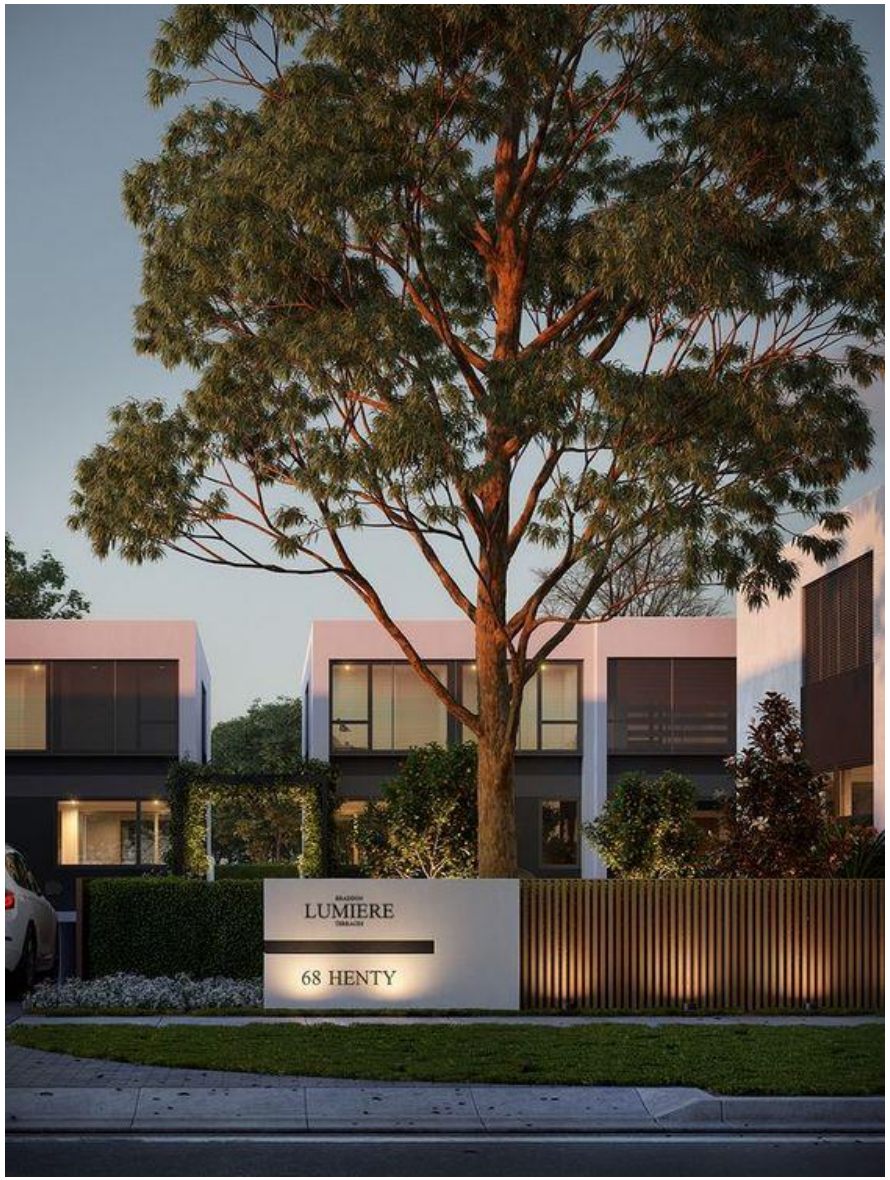
1 : 50

the design vision…….

develop a design vision – what is the landscape character of the development?

The development needs to sit within its ‘own site’, respond to the surrounding context but create a new identity that reflects the architecture within the landscape.





create a cohesive development

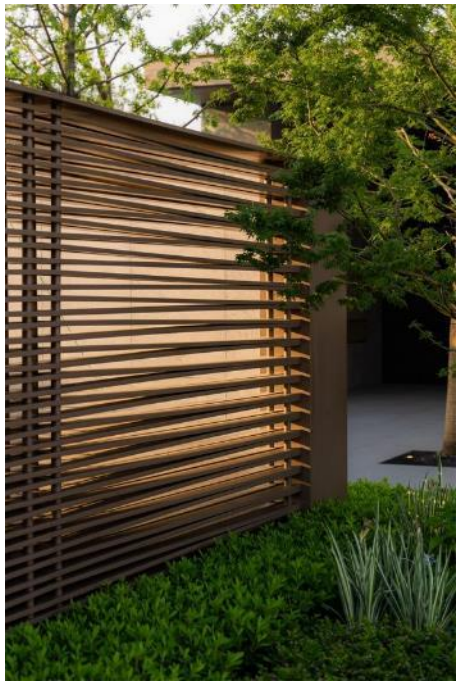
Creating a legible entry point from the roadside sets the tone of the development. Built elements such as walls and ponds work in harmony with planting and existing entrance hedgerows to mark the entrance in a suitable manner

clear thresholds

By creating a strong public shared space design, this creates an identity for the project. Homeowners are free to create their own internal garden spaces but it is important that the shared space reflects the overall style of the development. Sustainable drainage can be incorporated to good effect with trees and planting marking the ‘internal boundaries’.

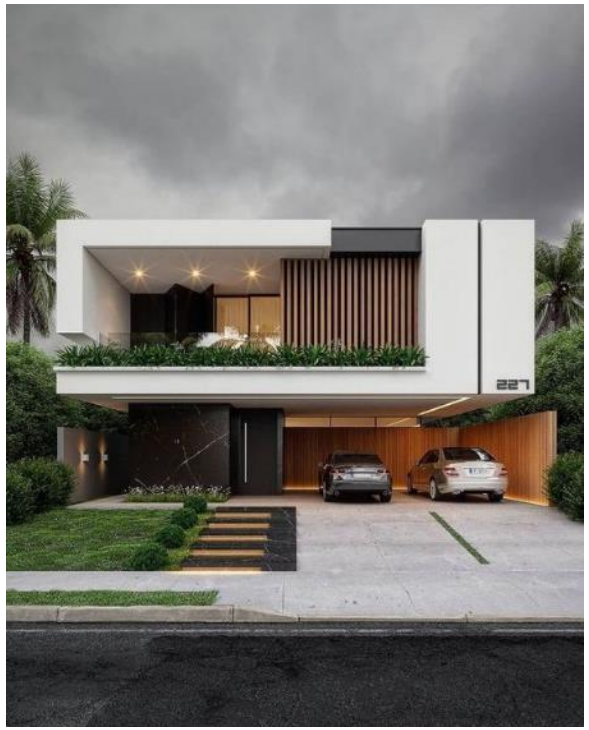
delineate the ‘public shared’ spaces

Thresholds create a clear hierarchy of space by using vertical elements and paving to mark the boundaries. Scale, proportion and balance takes its cues from the architecture and visually transparent elements can be used to good effect.



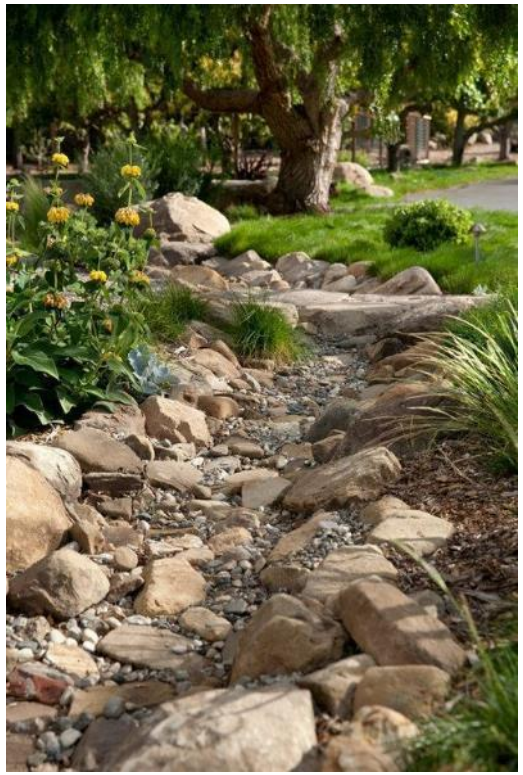
individual identity

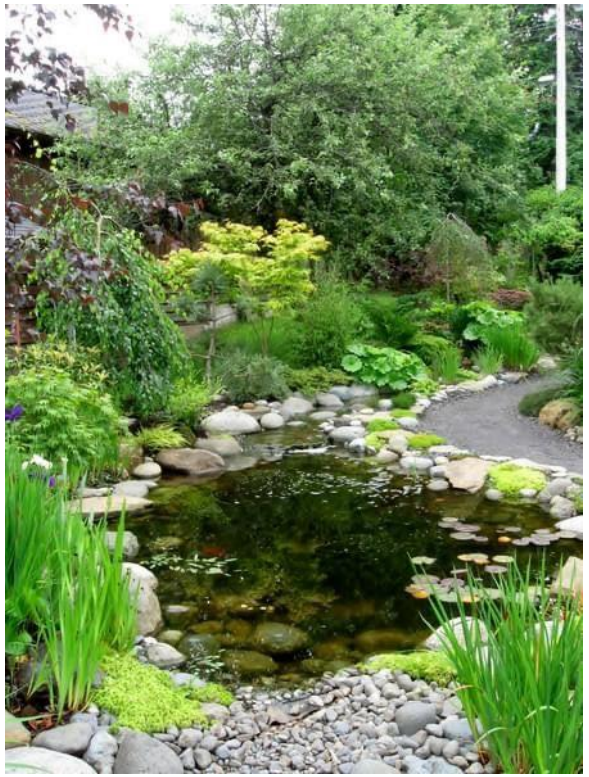
Getting the balance between contemporary design which can often be interpreted as clinical and clean, with a sustainable approach is key. Stone lined channels with planting can work well throughout the year and contribute to sustainability and practical drainage issues.



contemporary sustainable

The nature of periodic flooding attenuation ponds means that the materials used need to be able to look good when wet or dry. Swales planting and grass strips to filter water before going into the ponds is an important factor in the success of these features.



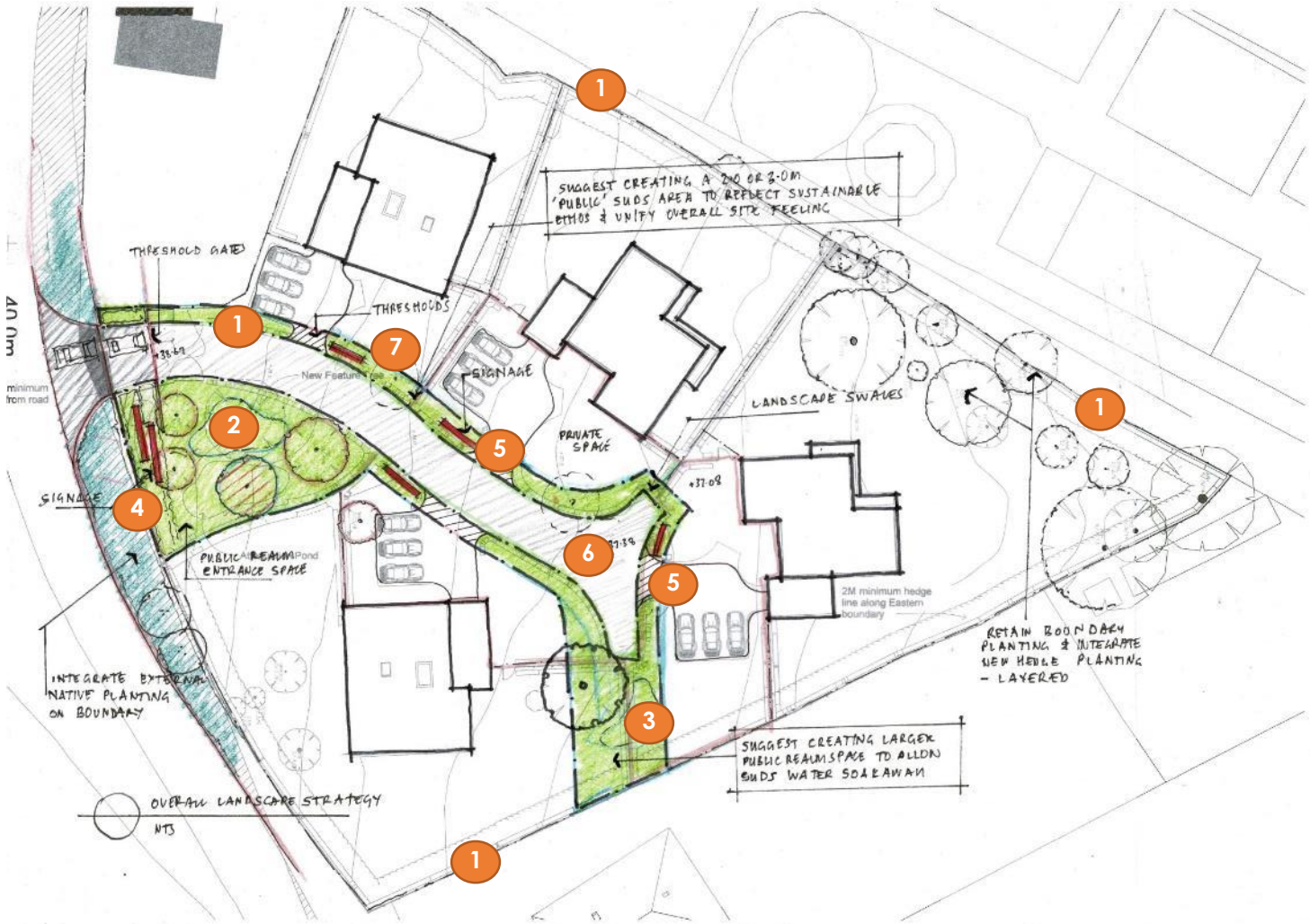


attenuation and stormwater strategy

strategy and details…..

General landscape strategy

1. Create an overall landscape framework that supports the road and boundaries.
2. Incorporate sustainable drainage measures which would have a marked effect on the eco-credentials of the project
3. Given the site levels, an additional attenuation pond area is suggested at the lower area between 2 plots
4. Integrate the front boundary road verge and hedge / tree planting along the road
5. Create threshold for all 4 properties by means of ground paving and signage together with layered planting around the sign
6. Suggest permeable asphalt material for the driveway
7. Incorporate trees within the drainage swales to create a visual definition for the boundaries.



Landscape layout

Functional zones

Survey contours

The site slopes from south to north with a level difference of around 3.5m from 39.3 down to 35.7. There is a localised spoil pile in the northern corner that does not follow the natural lie of the land. Contour lines shown at 1.0m intervals and various spot levels shown

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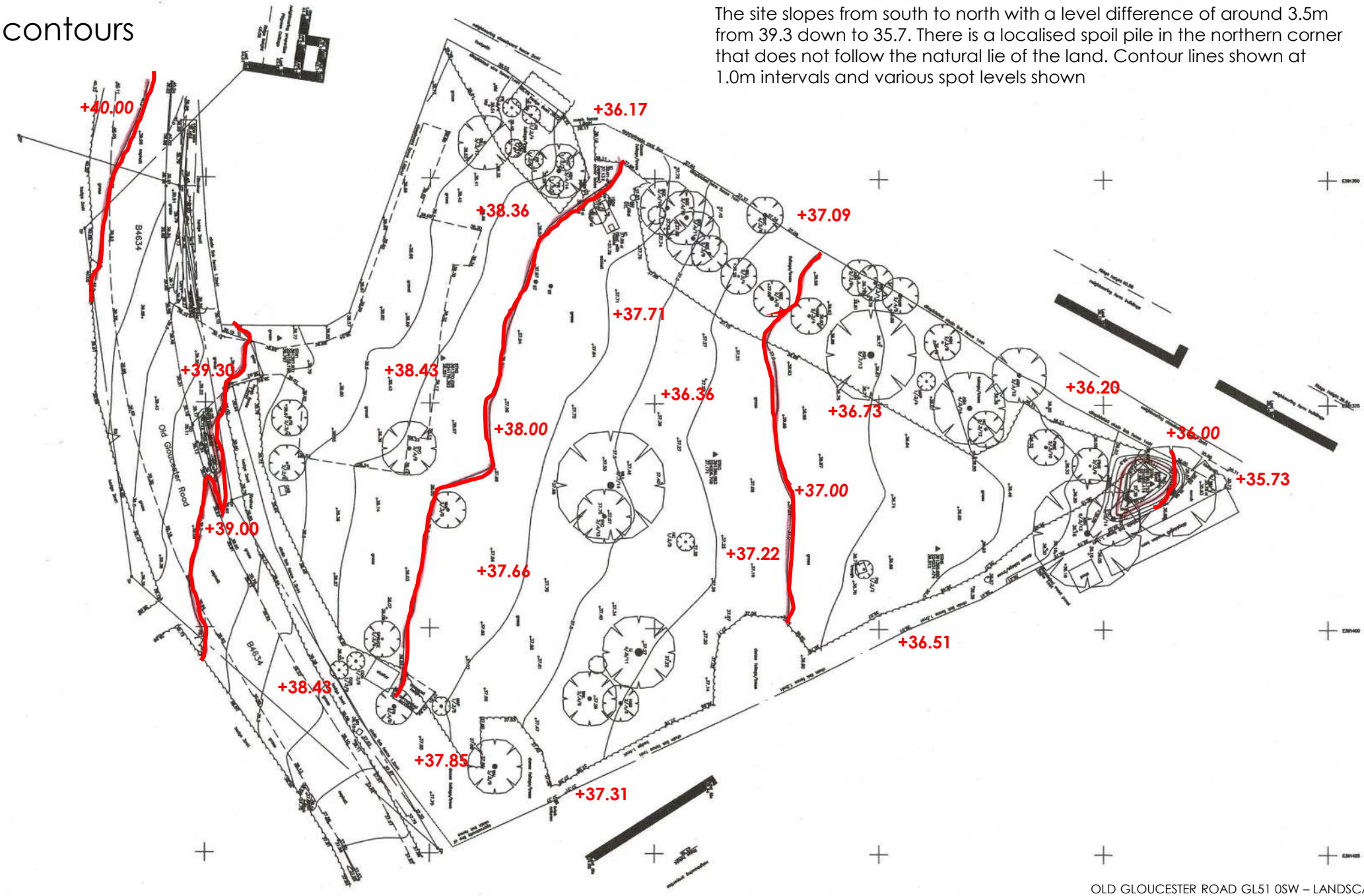
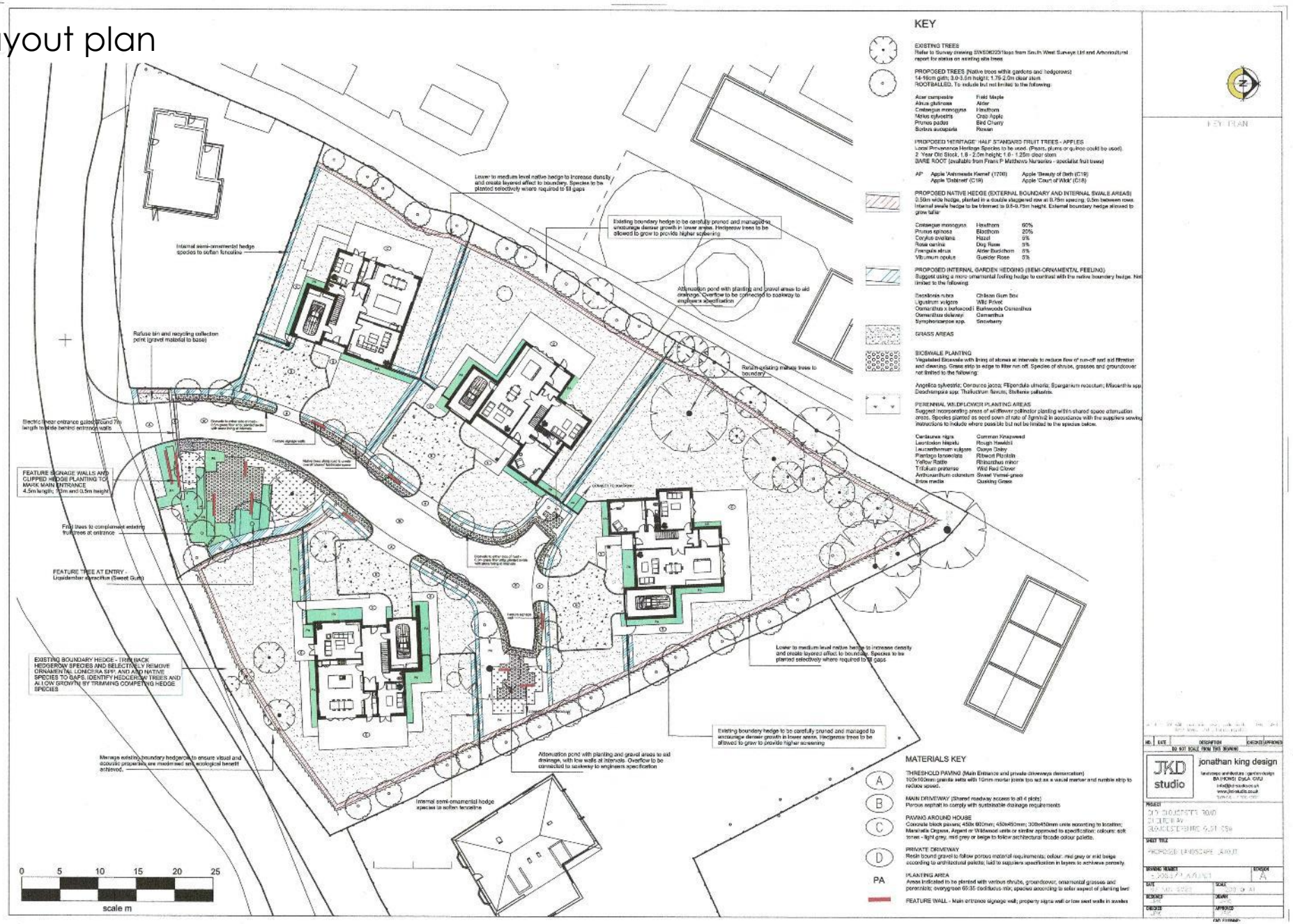
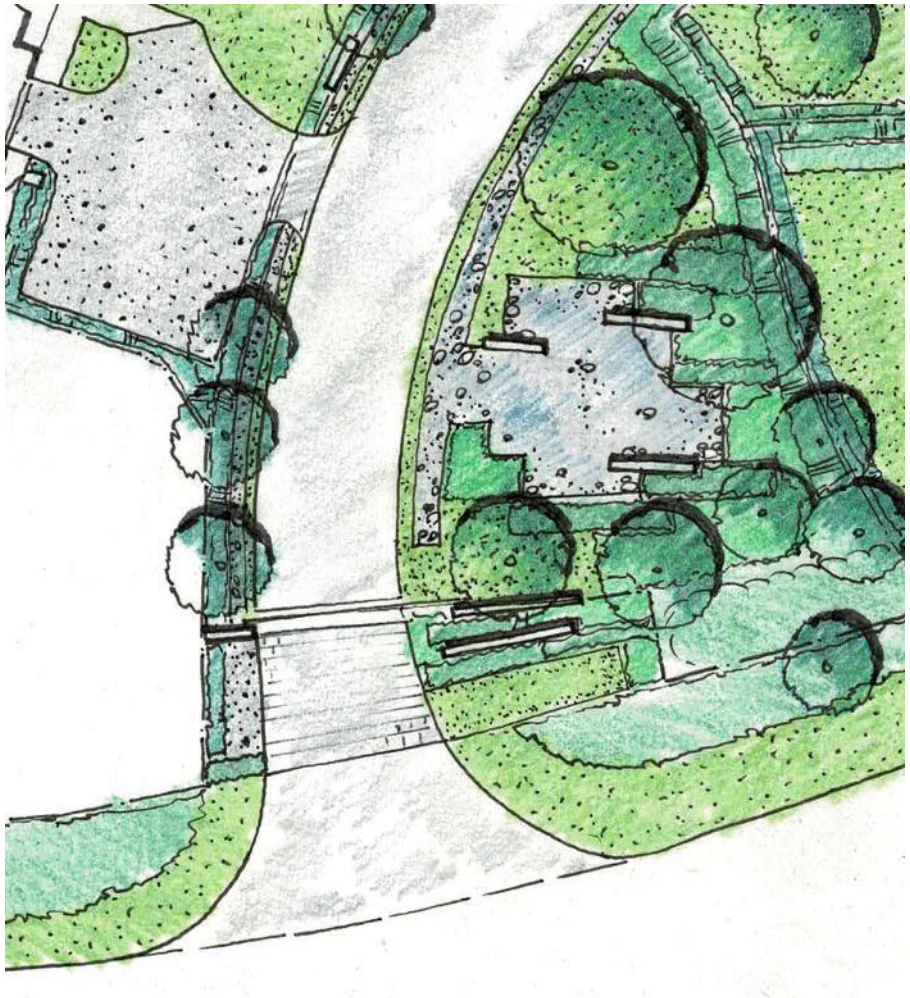


CAD layout plan



Perspective (overall site)

Main entrance



The main entrance aims to create a strong introduction to the site and a secure boundary. The layout has a linear design language that picks up on the building design. The entrance signage walls are complemented by lower walls that project into the attenuation pond.

Planting in layers reinforces the low walls but this is softened by wildflower and swales planting so that the linear language still feels natural.

Proposed feature trees and existing trees are kept to create a balanced planting backdrop so the walls fit into the layered landscape

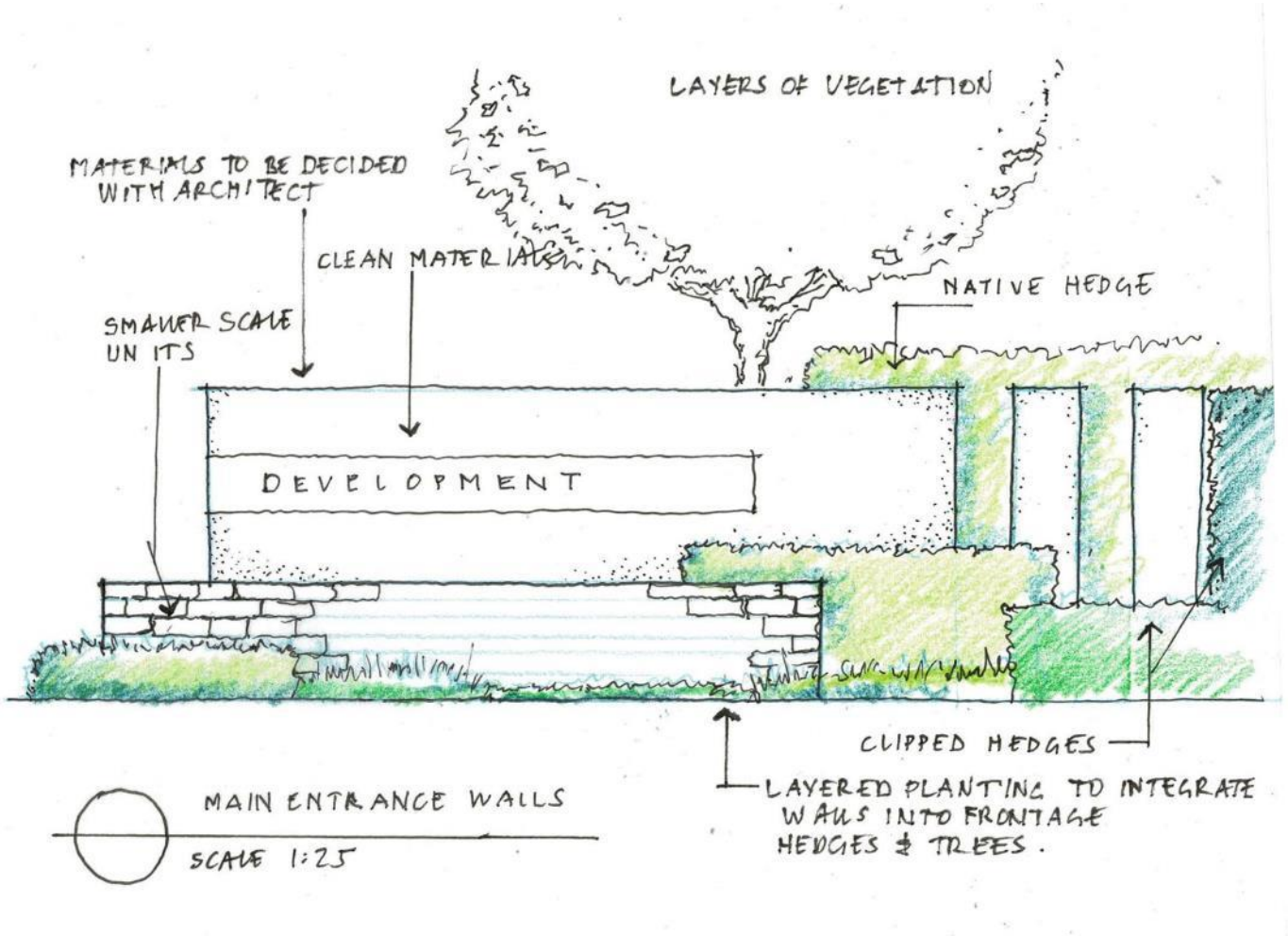
Perspective (main entrance)

Perspective (attenuation pond)

The attenuation pond area combines stone and planting, a grass filter strip with repeated low walls to provide stormwater management in a contemporary form.

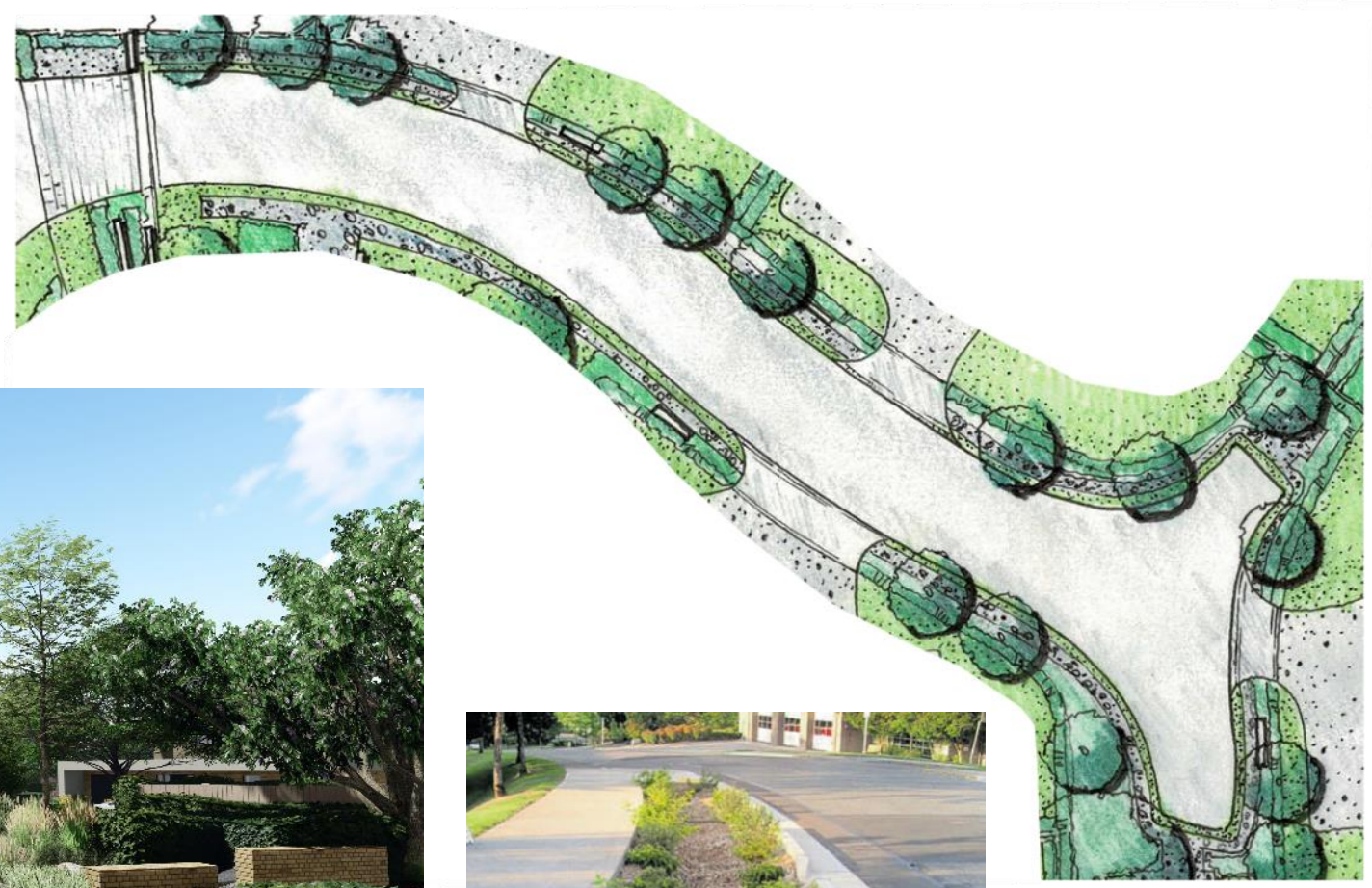
Main entrance walls - sketch

Main signage can be built up in layers with a clean contemporary expression of what the development is about. Materials can reflect the materials used on the building façade and create a strong threshold



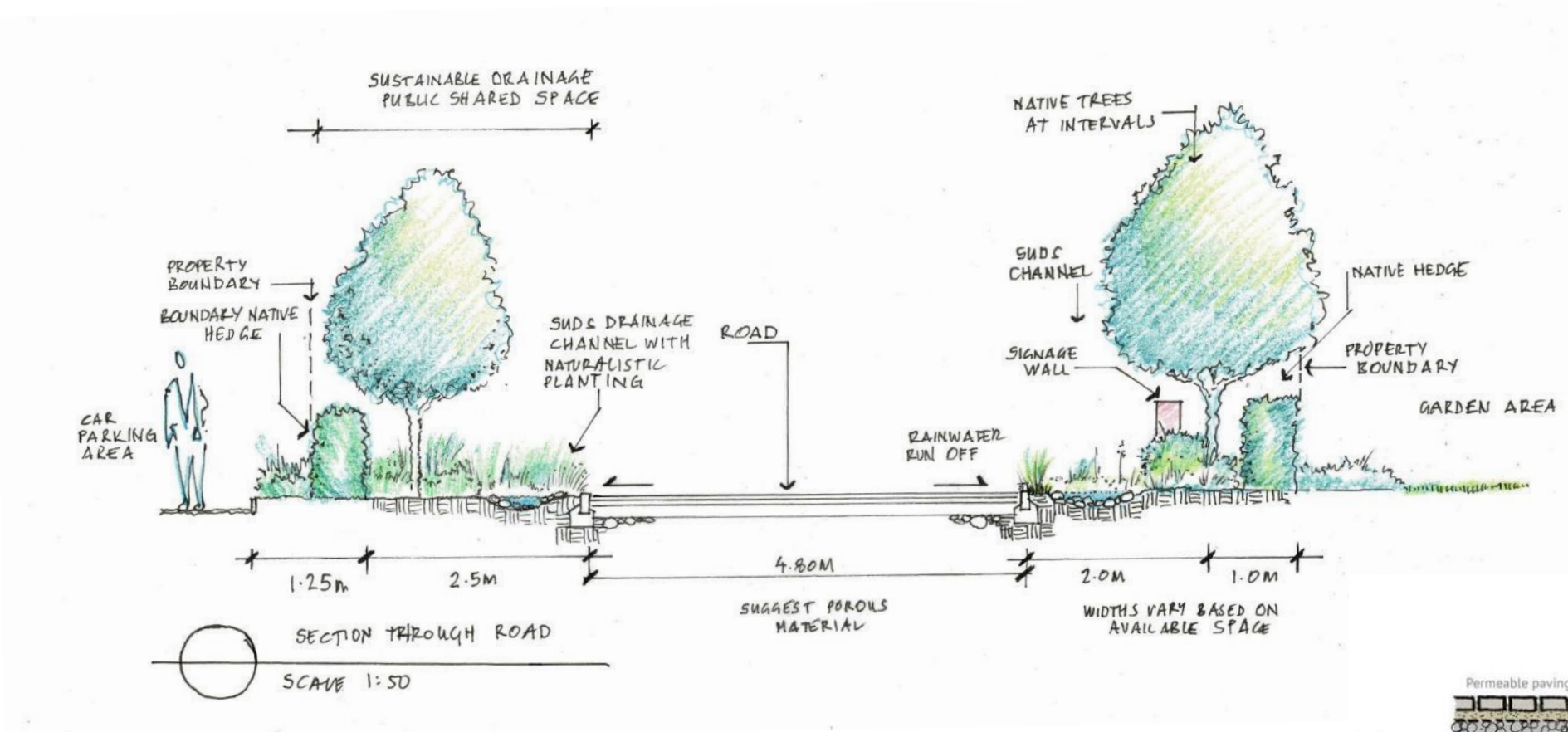
Main driveway

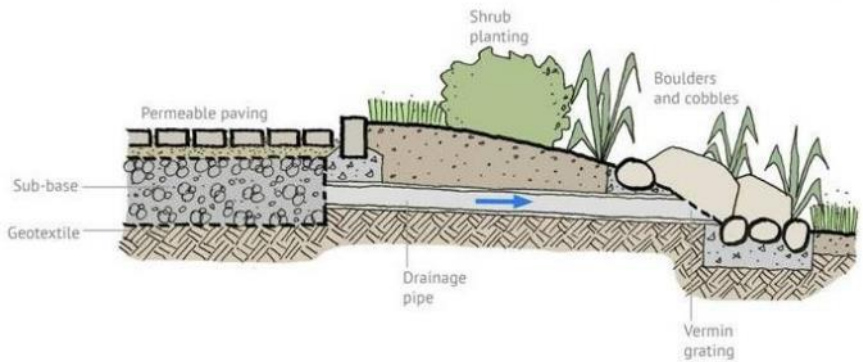
Bio-swales are included to reduce engineering cost, improve sustainability measures and create a cohesive layered design along the driveway. A low native hedge can still mark the boundary of the private front garden area of each unit.



Main driveway section

The roadway is proposed as porous which will percolate into the swale as well as immediate rainfall run off. The planting and stone lined channel will store and filter rainfall while discharging into the larger attenuation swale. A soakaway system will take any overflow from the system at its lowest point.



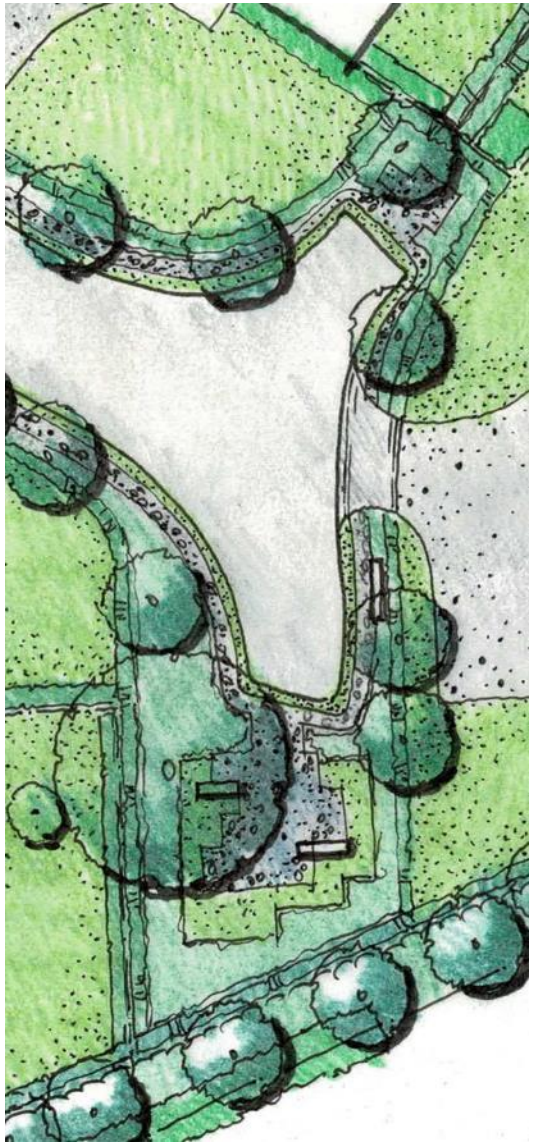


Perspective (house entrance)

Individual plot entrance is marked by threshold paving, signage walls and hedge planting. The walls pick up on the architectural materials used.

Turning area (view down road)

The turnaround area has defined materials to mark functional spaces. The shared road edge swales create an overall feeling with a smaller attenuation swale at the lower point to collect and percolate rainwater run off.

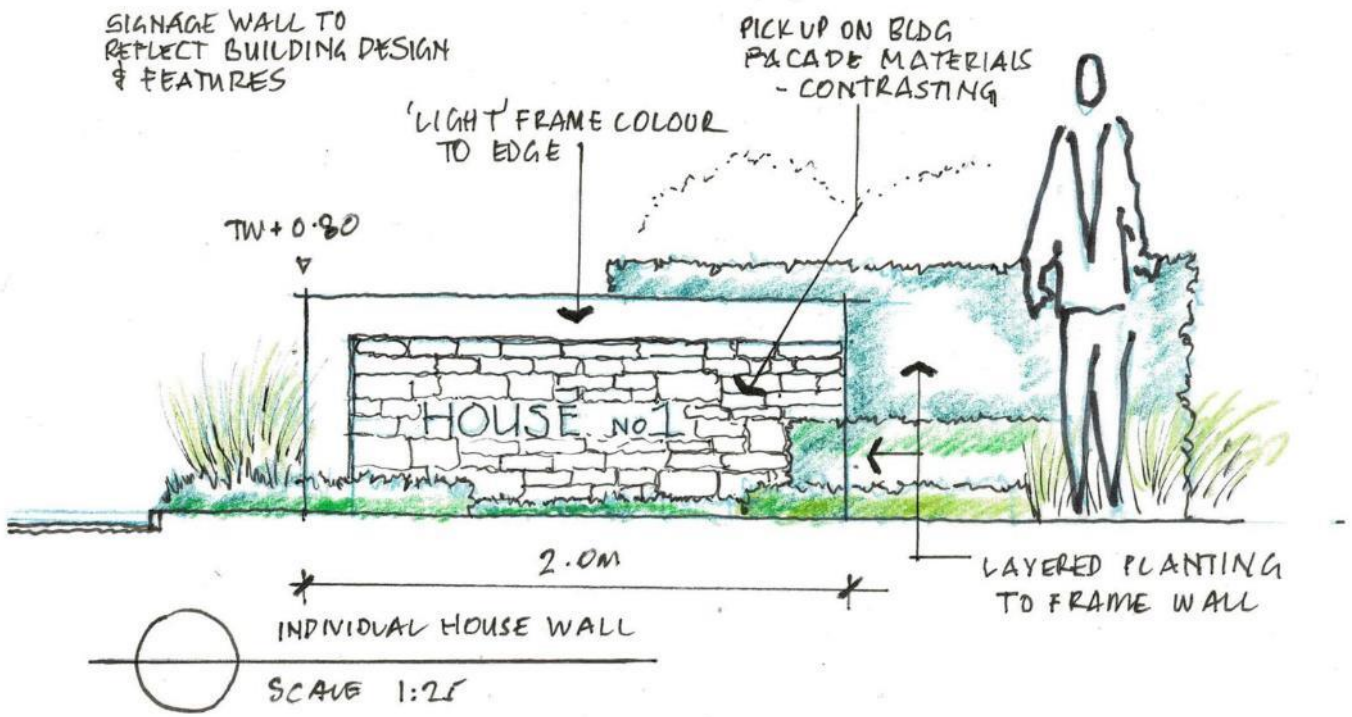


Front gardens

The thresholds mark the entrances to the private garden spaces. Porous surface materials such as resin bound gravel can follow the warmer colour tones of the building. Lawn areas and planting surrounding the building act to soften the built form into the landscape.

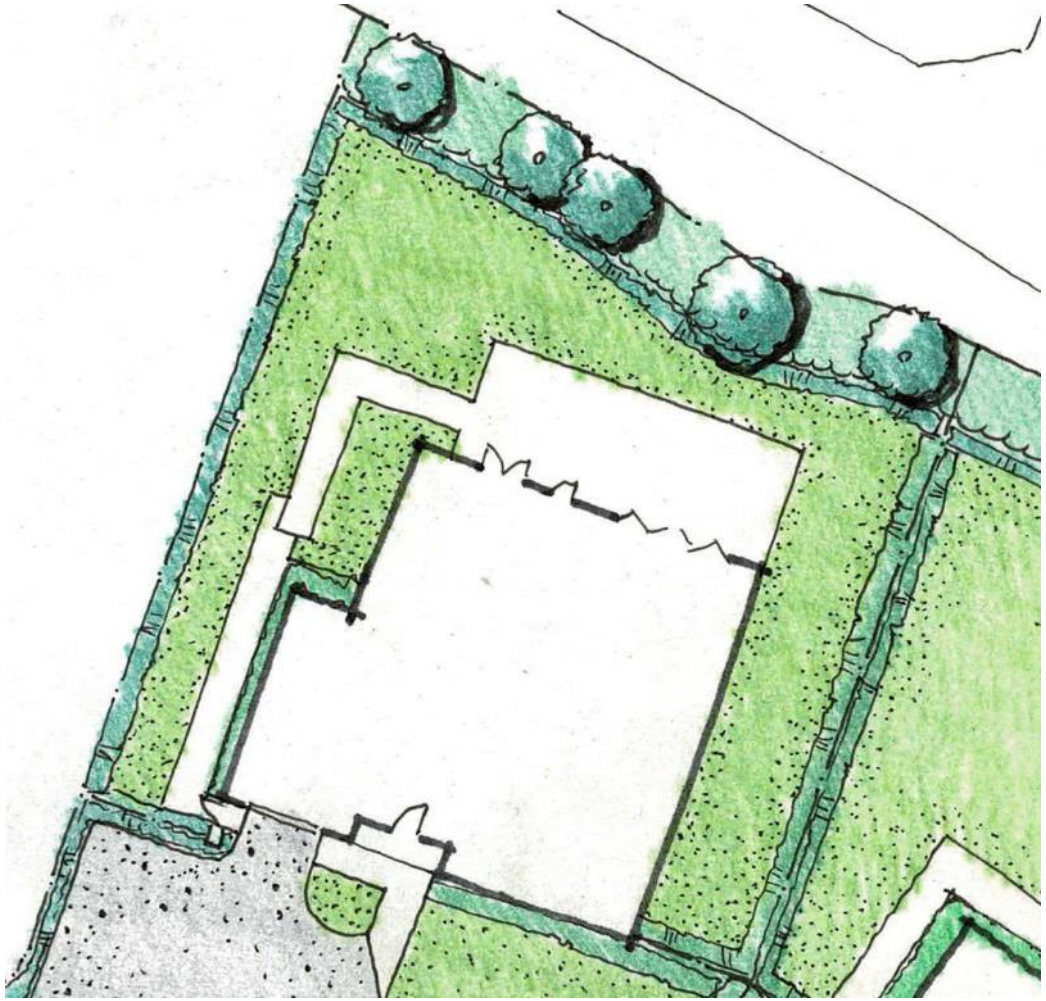
Signage entrance walls

These low walls situated within the shared swale areas reflect the building materials and design to create an individual touch to properties. Planting can be layered to reinforce the clean and contemporary form of the walls



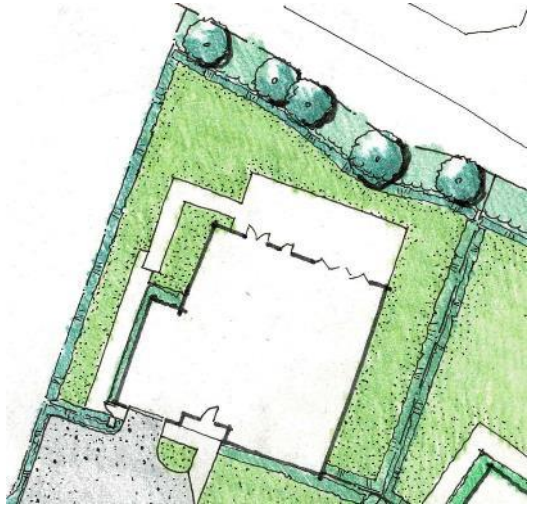
Rear gardens

The rear garden designs have been kept simple to reflect the overall layout style but to allow individual future changes based on owners requirements. Paving, lawn and softening planting create a clean but functional approach o the gardens.



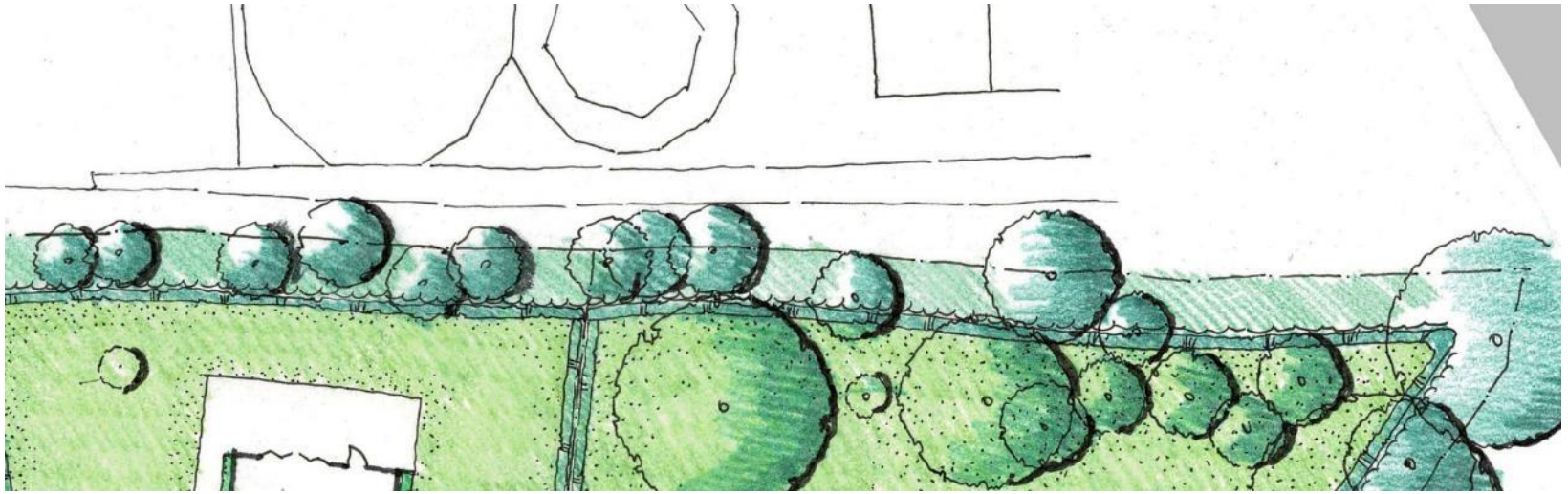
Rear gardens (mood images)

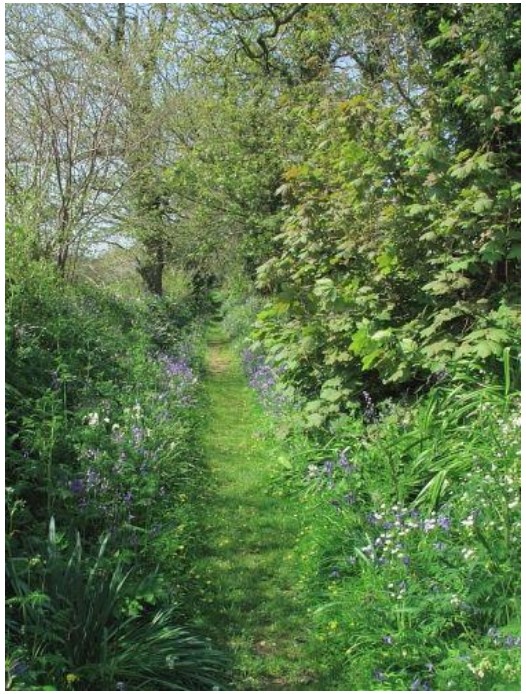
Keeping clean linear paving close to the building would fulfil functional and access requirements. Open lawn, simple block planting and integrating the boundary hedgerow and trees with more wild grass to create a layered effect is advised.



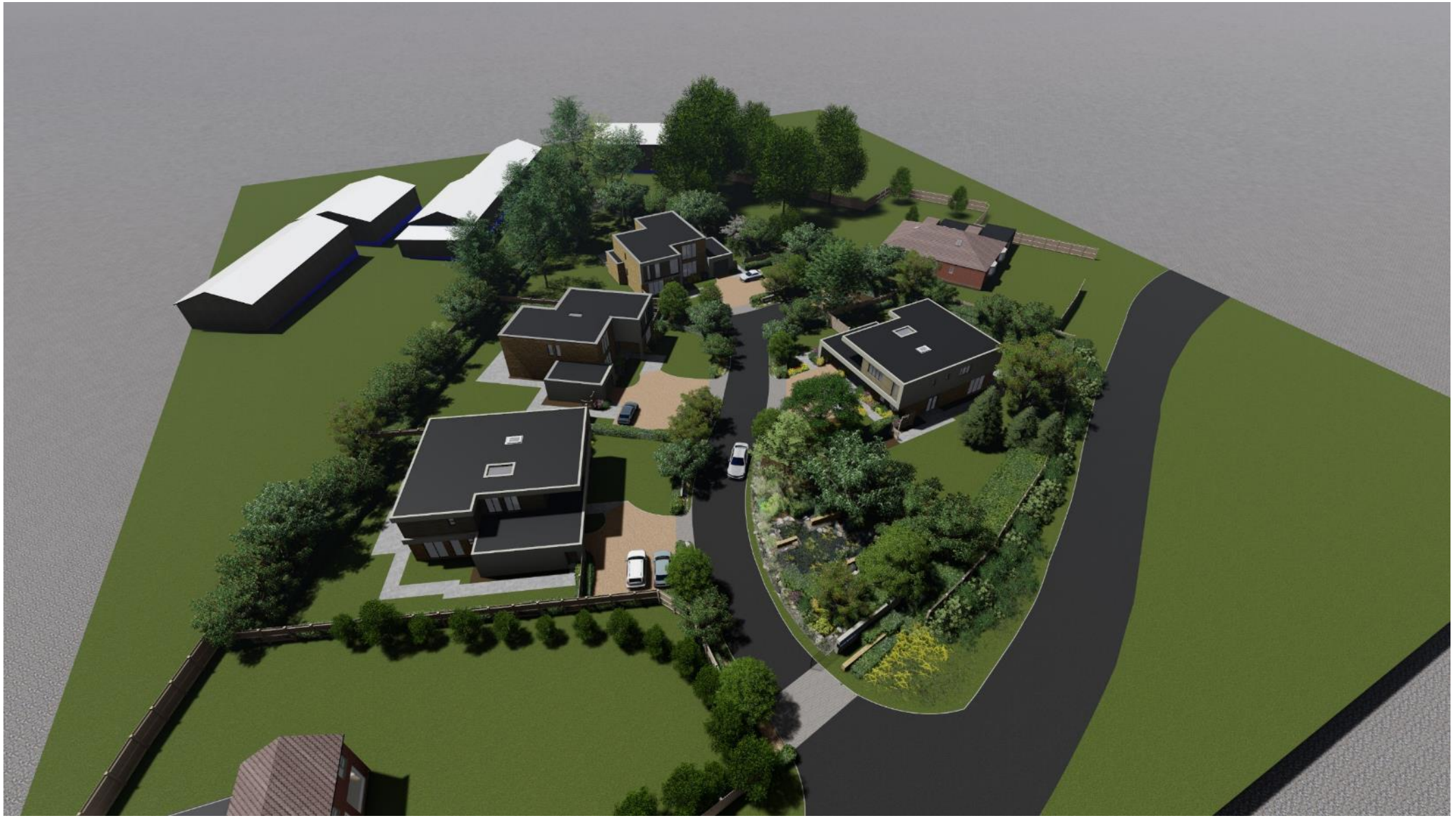
Boundary treatment

The existing site boundaries are well developed and quite complex. Establishing the new fence line, integrating the existing hedge & trees and planting new hedge species to plug any gaps and provide density are key objectives to achieve.





Perspective (overall site)



other design elements…….

Proposed tree species

Selection of appropriate species

Incorporating native trees within the boundary areas and gardens is important ecologically. Deciduous, native small to medium sized trees with flowering and fruiting characteristics to aid wildlife and pollinators would be a good solution. Rowan (Mountain Ash), Field Maple, Hawthorn, Bird Cherries, Crab apples and Alder would fit the criteria and context.

Alder (Alnus glutinosa) form, leaf and catkins

Crab Apple (Malus sylvestris)

Bird Cherry (Prunus padus) leaf and flower

Rowan (Sorbus aucuparia) flowers and fruit

Hawthorn (Crataegus monogyna)flower and fruit

Field Maple (Acer Campestre) form in leaf

Proposed heritage fruit trees

Gloucestershire Orchards – heritage local character and provenance; preserve, encourage and re-establish species

Vintage provenance species

The overall site area has some limited scope to include fruit trees that are very relevant to the Gloucestershire area. Apples are popular but pears, quince or plums could be suggested to preference.

(Frank P Matthews Fruit Tree suppliers of Tenbury Wells suggested as specialist nursery – they have Heritage fruit tree species of old varieties suitable for the area.

Apple Ashmeads Kernel

Apple Court of Wick

Apple Morgans Sweet

Apple Beauty of Bath

Apple Dabinett

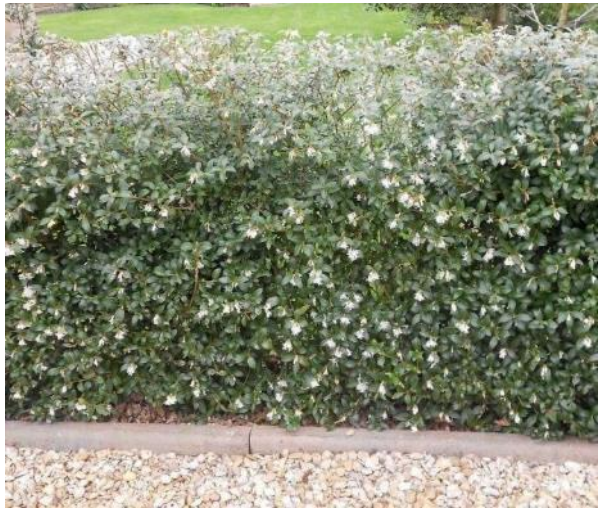
Apple Yarlington Mill

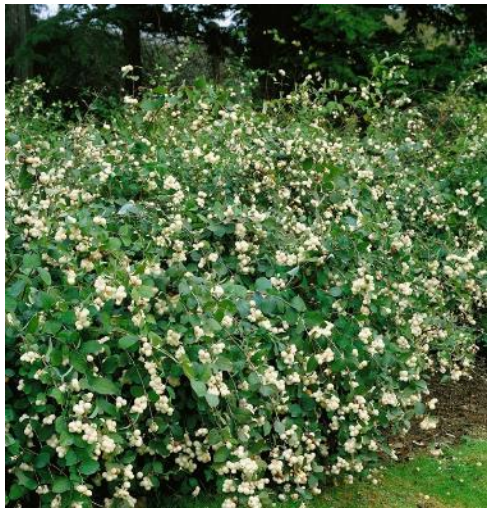
Planting – native hedges and semi-ornamantal (private gardens)

(preliminary planting list - not limited to the following)

Native Hedge – recommended on Boundary areas – lower level and infill.
A predominantly Hawthorn hedge with Blackthorn and other mixed species for variation. As existing hedge is well established, any infill will consider the species make up in that area of the boundary to ensure a collective approach.

Botanical name	Common	Percentage Mix
Crataegus monogyna	Hawthorn	60%
Prunus spinose	Blackthorn	20%
Corylus avellana	Hazel	5%
Rosa canina	Dog Rose	5%
Frangula alnus	Alder Buckthorn	5%
Viburnum opulus	Guelder Rose	5%





Semi–ornamental hedge within garden areas
These hedges are aimed at softening the dividing fences between the units. The species have a slightly looser habit rather than a totally formal shape and provide flowers and leaf interest. Species include Escallonia, Osmanthus, Wild privet, and Snowberry.

Planting - shrubs / groundcover (private gardens)

Selection of appropriate species

These species can be planted around the property to soften the buildings – mix with perennials, ornamental grasses and ferns according to solar aspect

Liriope muscari Variegata

Euonymus ‘Jean Hugues’

Pachysandra terminalis

Geranium‘Rozanne’

Actinidia kolomikta (cl)

Philadelphus ‘Belle Etoile’

Nandina domestica

Sarcococca confusa

Planting - shrubs / groundcover (private gardens)

Selection of appropriate species

These species can be planted around the property to soften the buildings – mix with perennials, ornamental grasses and ferns according to solar aspect

Cercis ‘Forest Pansy’

Ilex crenata (clipped ball)

Hebe ‘Midsummer Beauty’

Fatsia japonica

Hebe ‘Red Edge’

Pittosporum ‘Gold Star’

Deutzia gracilis ‘Nikko’

Planting – perennials, grasses and ferns (private gardens)

(preliminary planting list - not limited to the following)

Perennials
Agastache nepetioides
Angelica sylvestris
Astrantia major
Euphorbia cyparissus
Euphorbia griffithii 'Fireglow'
Persicaria aff. Superba
Salvia patens
Thalictrum delavayi 'Album'
Verbena hastata

Grasses (mixed border areas)
Carex testacea 'Prairie Fire'
Carex morowwii 'Ice Dance'
Deschampsia caespitose
Hakonechloa macra
Liriope muscari
Molinia caerulea 'Heidebraut'
Stipa tenuissima

Ferns (shady locations)
Asplenium scolopendruim
Athyrium filix-femina
Dryopteris filix-mas
Matteucia struthiopteris
Polypodium vulgare
Polystichum setiferum













Planting - perennial wildflower areas

Selection of appropriate species

There are a few opportunities for incorporating wildflower areas in the attenuation areas and potentially the rear gardens if required. These species prefer poorer soils and can thrive in the sunny aspect as proposed.

PERENNIAL WILDFLOWER PLANTING AREAS

Lower meadow area with species planted as seed sown at rate of 3gm/m2, This mix is suitable for neutral to calcarous soils within the Cheltenham area. Available from British Wildflower Seeds Ltd.

Centaurea nigra	Common Knapweed
Leontodon hispidu	Rough Hawkbit
Leucanthemum vulgare	Oxeye Daisy
Medicago lupulina	Black Medick
Plantago lanceolate	Ribwort Plantain
Ranunculus acris	Meadow Buttercup
Yellow Rattle	Rhinanthus minor
Trifolium pratense	Wild Red Clover

Sedges and Grasses

Anthoxanthum odoratum	Sweet Vernal-grass
Briza media	Quaking Grass
Bromopsis erecta	Upright Brome
Carex flacca	Glaucous Sedge
Cynosurus cristatus	Crested Dogstail
Lolium perenne	Perennial Ryegrass

https://britishwildflowermeadowseeds.co.uk/collections/wildflower-meadow-seeds/products/somerset-meadow-seed-mix

Quaking Grass

Ox-eye Daisy

Rough Hawkbit

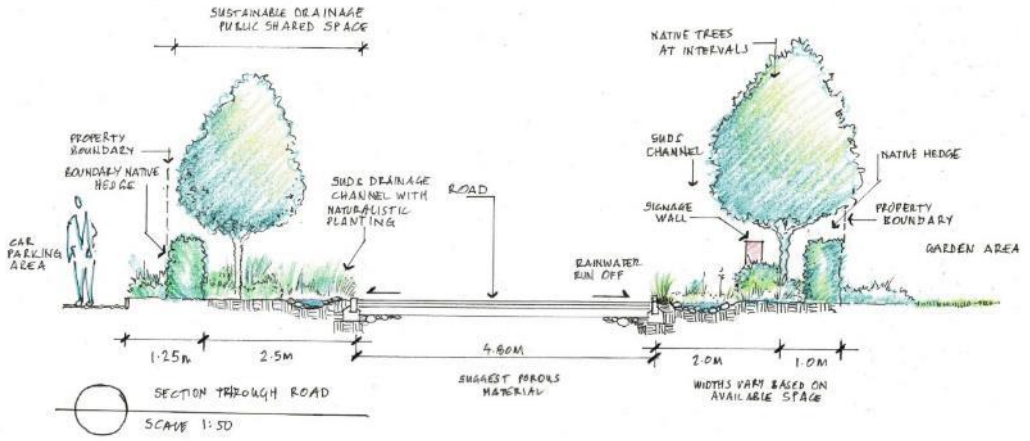
Common Knapweed

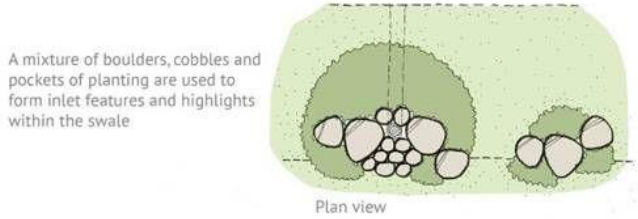
Ribwort Plantain

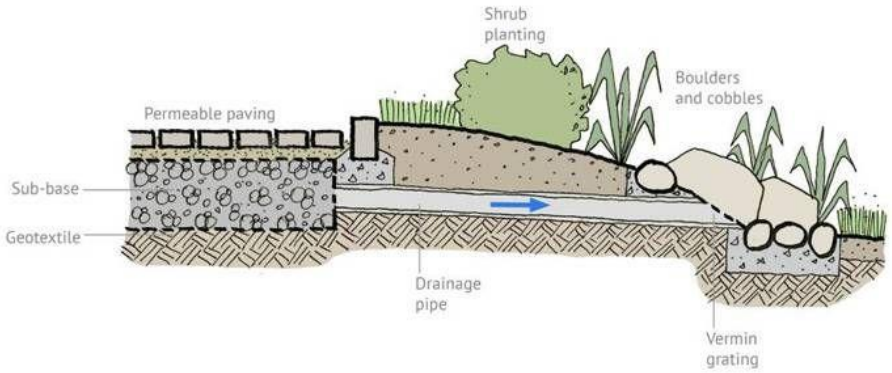
Black Medick

Sustainable drainage (SuDS)

To follow Sustainable Urban Drainage Systems (SuDS) principles, the driveway suggested material is porous asphalt or a resin bound gravel. By using porous material, this will contribute to sustainable drainage measures on flat surfaces.

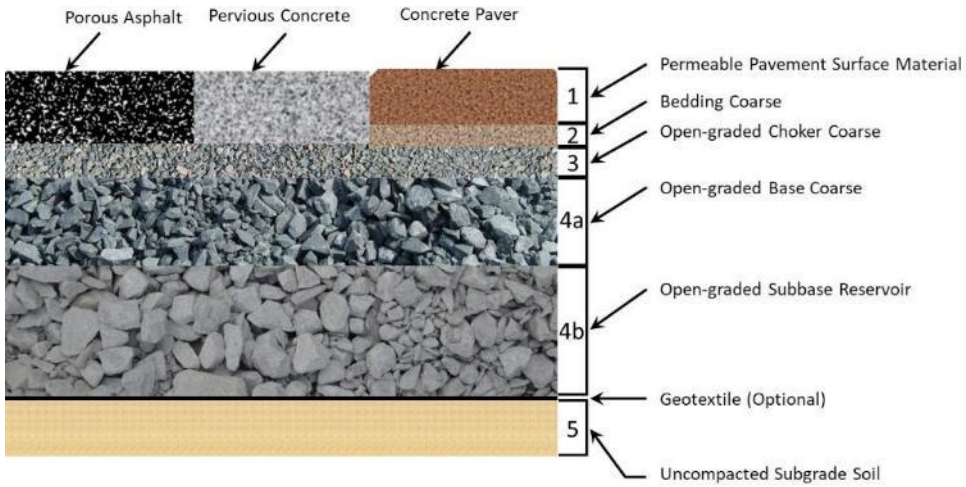


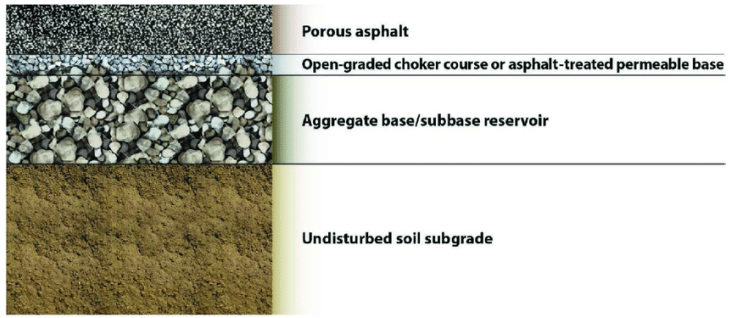




Driveway materials

To follow Sustainable urban drainage systems (SuDS) principles, the driveway suggested material is porous asphalt or a resin bound gravel. By using porous material, this will contribute to sustainable drainage measures on flat surfaces. Run off will be collected in drainage swales. Suggest warmer resin bound gravel on private driveways with darker asphalt on shared access driveway.





Paving materials (private gardens)

It is suggested to keep a limited range of paving materials that respond to the modern architectural style and allow functionality. Homeowners may choose to install different units once long term preferences are known. Materials suggested:

NATURAL STONE SETTS– Granite setts, dark grey colour to mark dwelling threshold; 90x90x90mm

CONCRETE (RECONSTITUTED) – cost effective modern units for building surrounds (450x600mm as suits space)

Granite Setts (dark grey threshold paving)

Concrete – Marshalls 'Argent' (Coarse Light shown – mid and dark grey tones available)

Concrete – Marshalls 'Organa' (Light 'Linen' colour shown)

Concrete – Marshall 'Wildwood' (Pine colour show; Darker Oak tone available)

Lighting strategy

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Lighting Key

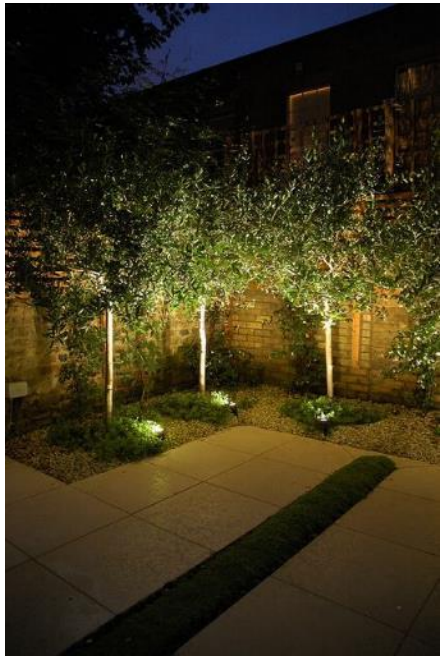
- Tree / Wall Uplight
- Road / Pathway downlight
- Inground Uplight
- Building / Structure Downlight

Exterior lighting

Note: Care to be taken to prevent light pollution in this semi-rural setting. Subtle lighting for functional and safety reasons with ecologists recommendations to be taken into account for wildlife conservation.

Minimal lighting will be installed to ensure safe access to between buildings and parking yard. Lighting will be of type shown below, directing light downwards to avoid unnecessary 'pollution'.

Tree uplighting
Inground uplighters to light base of canopy



Wildlife encouragement

Bat and bird boxes, hedgehog retreats and bee habitats
Detailed elements make a significant difference in the gardens and shared spaces to encourage wildlife. Nesting boxes, access to water, bee hotels and hedgehog retreats provide much needed resources especially during the winter months.

summary

JKD
studio

jonathan king design

landscape architecture : garden design